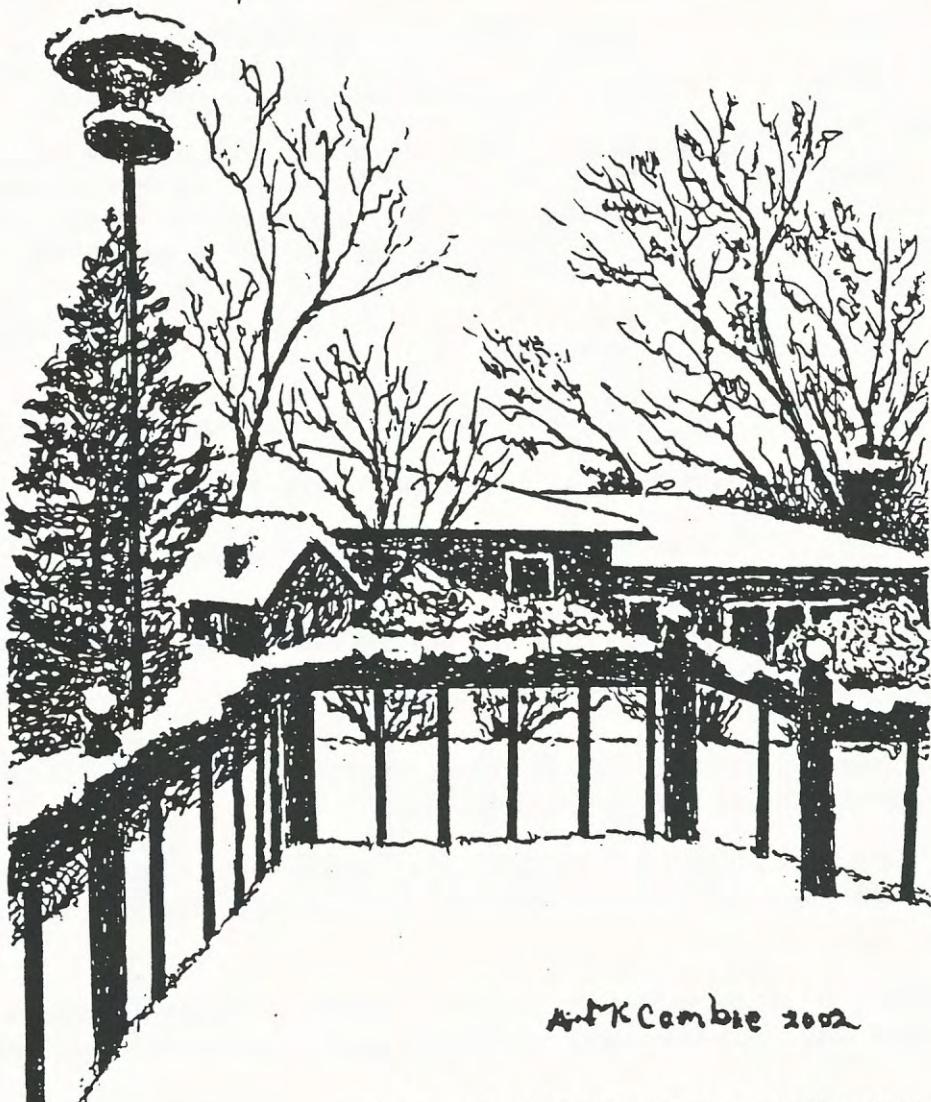


TORONTO FIELD NATURALIST

Number 520

WINTER ISSUE

December 2003



Mark Cambie 2002

Backyard bird-feeding station, Bayview Village

Inside

Amphibians & reptiles 19

Birds 1, 8, 9-11, 13, 17-18, 20, 23, 24, 25

Coming events 27

Geology 21

Invertebrates 8, 20, 24

Issues 7, 17-18, 22

Mammals 16, 19

Plants 23

Projects 14-16, 24

Reading 12-13

Trees 6, 12, 14-16

TFN - meetings 2

newsletter submissions 2

outings 3-5

President's report 7

publications 28

Weather 26

TFN MEETINGS

Sunday, December 7, 2003 - SEVEN CONTINENTS IN 120 DAYS
at 2:30 pm an illustrated talk by George Bryant, nature tour leader and well-known naturalist.
at Emmanuel College We will hear the story, and see the photographs, of an around-the-world cruise during which the speaker made many observations of the natural environment, including the many seabird species encountered during the voyage.
75 Queen's Park Cres.
VISITORS WELCOME!
+ a social hour beginning at 2 pm with free coffee and juice
+ selected publications and memberships for sale

► NEXT MEETING: Sunday, February 1, 2004 [NO MEETING IN JANUARY]

► NEXT NEWSLETTER: February 2004 (to be mailed in mid January)

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

Editor: Helen Juhola

Poetry, Art and Nature Observations: Diana Banville

Assistants: Patricia Brind, Eva Davis, Karin Fawthrop, Nancy Fredenburg, Toshi Oikawa, Marilynn Murphy, Robin Powell

Printer: DM Printing

Mailer: Perkins Mailing Services

TFN OUTINGS

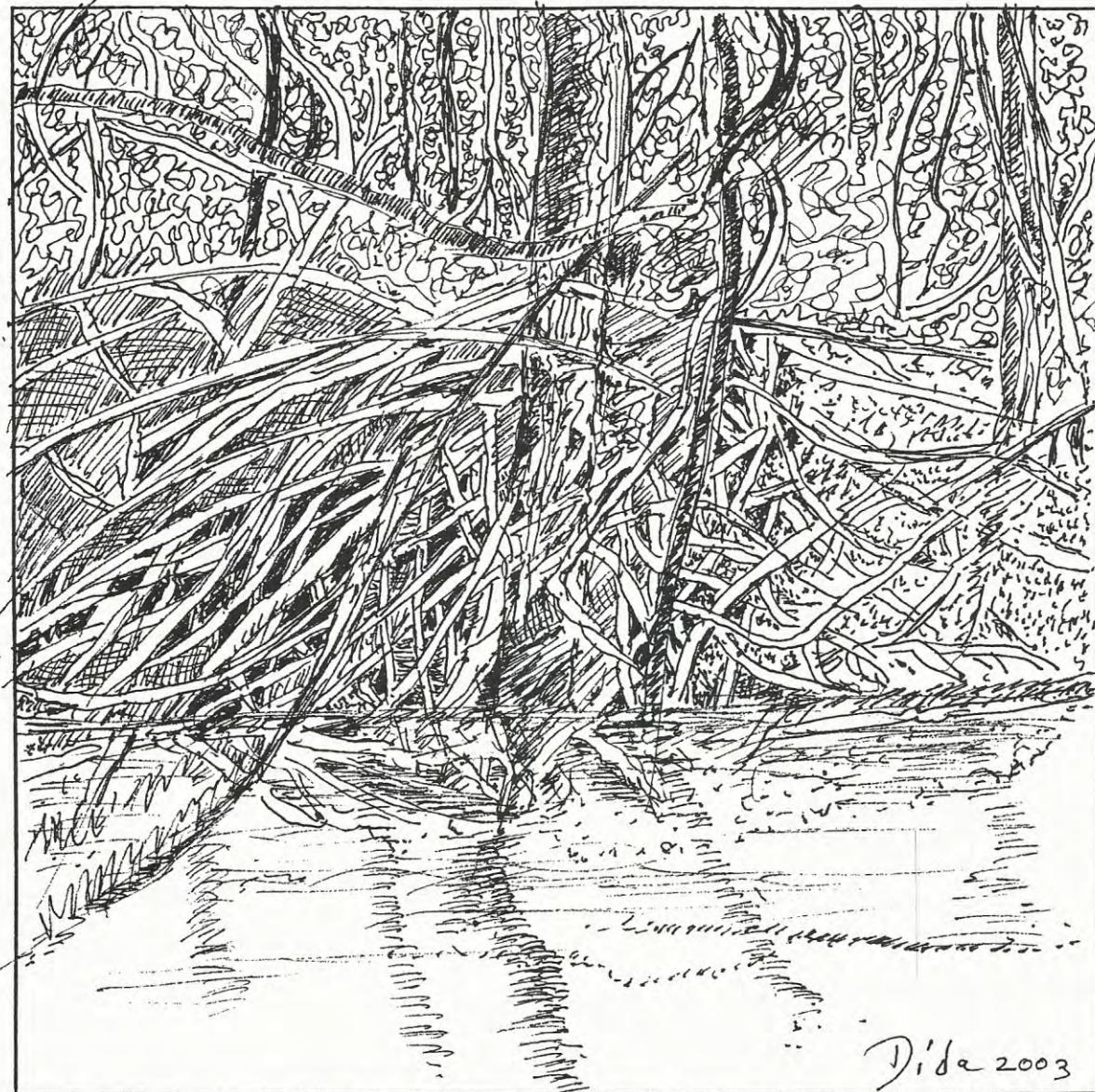
REMEMBER: Children and visitors are welcome on all outings but please, NO PETS!
 To get to outings on time, check TTC routes and schedules by calling 416-393-4636.
 Check the weather by calling 416-661-0123 so you will know what to wear on outings
 which go rain or shine.

- \$ ferry tickets
- | | |
|---|---|
| Wednesday
Dec. 3
10 am | TORONTO ISLANDS - nature walk
Leader: George Bryant
Meet at the ferry docks at the foot of Bay St. in time to catch the 10 am ferry to Wards Island.
Bring lunch, binoculars, and dress warmly. |
| Saturday
Dec. 6
10:30 am | ALLAN GARDENS - nature arts
Leader: Mary Cumming
Meet at the entrance to the greenhouses on the south side of Carlton St. just east of Jarvis St.
Bring what you need for photography, sketching or painting, and anything you wish to show the group when we compare our morning's work after lunch at a nearby mall. |
| Dec. 7 | TFN MEETING (See page 2 for details.) |
| Tuesday
Dec. 9
10 am | ABANDONED ONTARIO NORTHLAND RAIL LINE - nature walk
Leader: George Bryant
Meet at the northwest corner of Lawrence Ave. East and Leslie St.
Bring lunch and binoculars. |
| Saturday
Dec. 13
9 am to
12 noon | ETOBICOKE GREENHOUSES - nature walk
Leader: Diana Karrandjas
Meet at the entrance to the greenhouses on Elmcrest Rd. just north of Rathburn Rd.
Bring binoculars and a snack. If the weather is suitable we will explore the nearby Etobicoke Valley. |
| Wednesday
Dec. 17
10:30 am | YORK CEMETERY - winter bird walk
Leader: Carol Sellers
Meet at the cemetery entrance at the corner of Beecroft Rd. and North York Blvd.
Bring lunch and binoculars. |
| Saturday
Dec. 20
11 am | THE RAVINES AT SOLSTICE - urban ecology
Leader: Ed Freeman
Meet at the south exit of the St. Clair West subway station (on the south side of St. Clair West just east of Bathurst St.).
Bring a lunch to eat at the Toronto Archives. This is a joint outing with the North Toronto Green Community. |



TFN OUTINGS (cont'd)

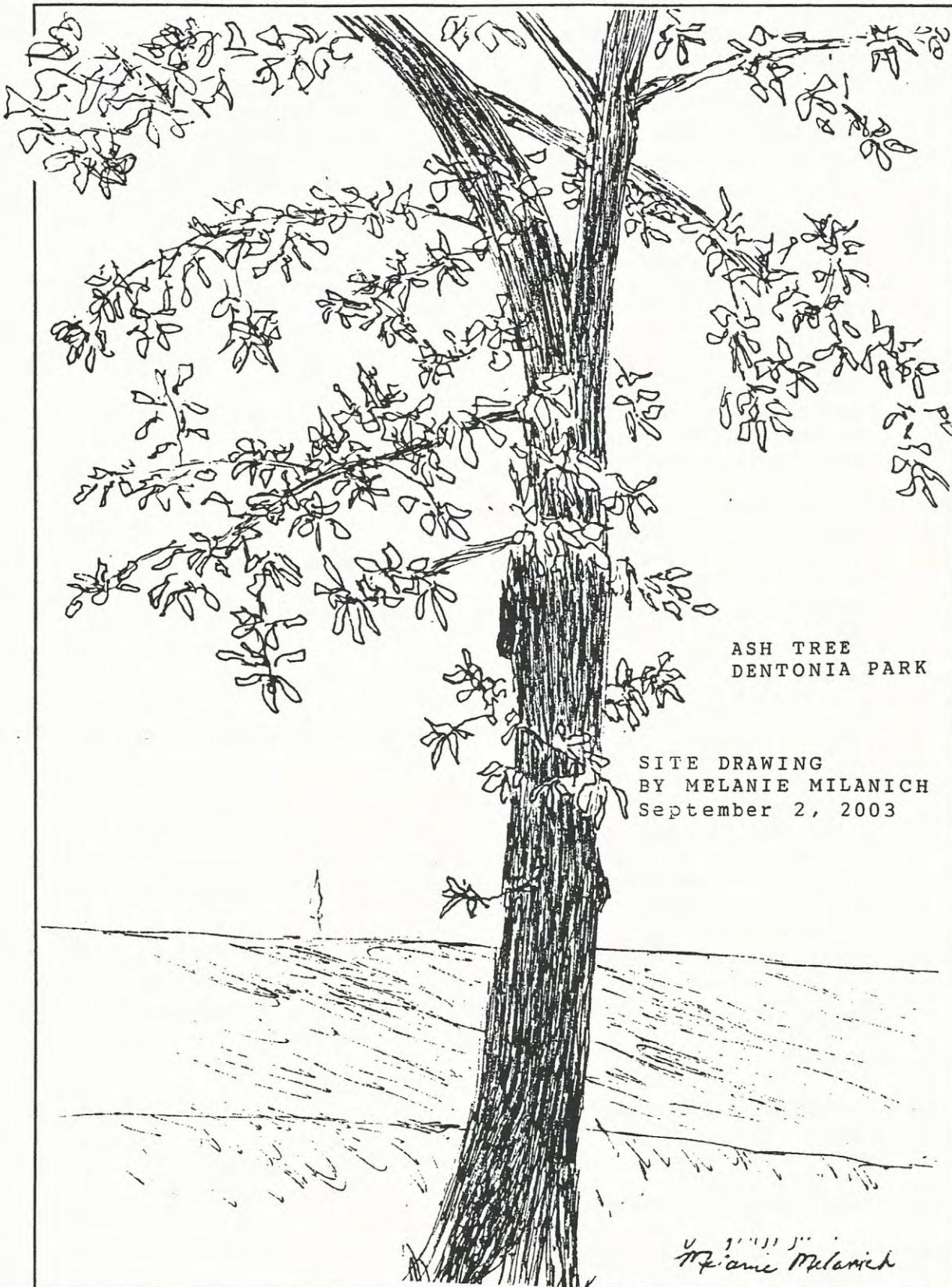
- Saturday LESLIE STREET SPIT - nature walk
Dec. 27 Leader: Boris Mather
10 am Meet at the southwest corner of Queen St. East and Leslie St.
 Morning only. Dress warmly. Bring a snack and warm drink.
- Tuesday BELTLINE - nature walk
Dec. 30 Leader: Roger Powley
10 am Meet at the Davisville subway station.
 Bring lunch and binoculars.



BEAVER LODGE AND POND, Morningside Park - Drawing by
Diana Banville, based on photos by Betty Greenacre, 2003

TFN OUTINGS (cont'd)

- Saturday DEERPARK LIBRARY - nature arts (photography)
 Jan. 3 Leader: Robin Powell
 2 pm to Meet on the second floor of the library which is on the north
 4 pm side of St. Clair Ave. East, one block east of Yonge St.
 Bring your own nature slides, as many as 20, or just come and enjoy looking.
 A projector and screen will be provided. If you have any questions, please
 call the TFN office at 416-593-2656. Snap-shots are also welcome.
- Wednesday DOWNTOWN - urban geology
 Jan. 7 Leader: Ed Freeman
 10 am Meet at the southeast corner of Queen St. and Yonge St.
 Morning only. Walk will end at Yonge St. near Front St.
- Saturday SAM SMITH PARK - birds
 Jan. 10 Leader: Andre Vietinghoff
 9 am Meet on the south side of Lake Shore Blvd. West at the foot
 of Kipling Ave.
 Morning only. Bring binoculars and a snack.
- Thursday WESTERN LAKESHORE - heritage/nature walk
 Jan. 15 Leader: Boris Mather
 10 am Meet at the northwest corner of the Queensway and
 Windermere Ave.
 Bring lunch and binoculars and dress warmly. Walk will end at Humber Bay
 Shores Waterfront Park.
- Saturday GERMAN MILLS PARK - nature walk
 Jan. 17 Leader: Theresa Moore
 2 pm Meet at the northeast corner of Steeles Ave. East and Leslie St.
 Bring binoculars.
- Sunday LOWER DON VALLEY - urban ecology
 Jan. 18 Leader: John Wilson
 2 pm Meet at the northwest corner of Broadview Ave. and Queen St. East.
 This is a joint outing with the North Toronto Green Community. Walk will
 end at Riverdale Farm.
- Wednesday ASHBRIDGES BAY - winter birds
 Jan. 21 Leader: Barbara Kalthoff
 10 am Meet on the south side of Lake Shore Blvd. East at the foot
 of Coxwell Ave.
 Morning only. Bring binoculars.
- Saturday TERRAVIEW PARK - nature walk
 Jan. 24 Leader: Boris Mather
 10 am Meet at the northeast corner of Victoria Park Ave. and
 Terraview Blvd.
 Bring lunch and binoculars and dress warmly.
- Wednesday CITY STREETS - urban geology
 Jan. 28 Leader: Ed Freeman
 10 am Meet at the southeast corner of Bay St. and Bloor St. West.
 Morning only.



ASH TREE
DENTONIA PARK

SITE DRAWING
BY MELANIE MILANICH
September 2, 2003

Melanie Milanich

PRESIDENT'S REPORT

I'm cautiously optimistic that the recent provincial election and the upcoming municipal elections will soon mean better protection for the Greater Toronto Area's natural areas. Urban development pressures have never been greater. As well, there are other threats, e.g. the Asian longhorn beetle whose long-term regional impact could be devastating. Monitoring public/private sector activities that potentially affect remaining natural areas is a daunting task. Fortunately, the internet has made some of it a little easier. However, this has its own problems with information overload. Sustained follow-up, which includes site visits, attending public meetings/committees, letter writing, phone calling, all strain the TFN's resources. Here are some of the things we're monitoring:

Location	Activity
Etobicoke Cr., Mimico Cr., Humber R., West Humber R.	Proposed Go Transit/bus route (BRT) vs LRT
Etobicoke/Mimico Creeks	Watershed Coalition
Humber R. - Black Cr.	Lambton G.C.C. Renaturalization
Humber R. - Black Cr.	York University - Proposed Tennis Canada development
Humber R. - Rainbow Cr.	Widening of Hwy #407
Humber R. & Mimico Cr.	Downsvie Park
Lakeshore	Toronto-Rochester ferry port site
Lakeshore - central waterfront	Ashbridges Bay STP - Site Design
Lakeshore - central waterfront	Portlands Energy Centre proposal
Lakeshore - central waterfront	Tommy Thompson Park (The Spit) Phase II
Lakeshore - Mimico	Amos Waite Pk. Renaturalization
Lakeshore - Toronto Islands	Toronto Island Airport Expansion
Little Rouge R.	Proposed cemetery - north east of Ressor Rd. and Steeles Ave.
Little Rouge R./Petticoat Cr.	York/Durham Sanitary Sewage System expansion
Lower Don R.	EA for renaturalization of river mouth and flood control
Lower Don R./East Don R.	Don Valley Corridor Transportation Master Plan
Mimico Cr.	Bonar Cr. renaturalization
Oak Ridges Moraine	Northern extension of Hwy. 427
Other	Beltline Trail (York) - Proposed naturalization
Other	Biosolids and Residuals Master Plan
Other	City-wide ravine by-law
Other	Toronto Parks and Recreation - Strategic Plan
Other	West Nile virus - potential mosquito spraying
Other	Wet Weather Flow Management Master Plan
Pickering Airport	Proposed zoning changes
Rouge R.	Markham Official Plan Amendment
Rouge R. - Markham Bypass Extension	
Rouge R. - Morningside tributary	Tapscott residential development
Scarborough Bluffs - Guildwood	Shoreline stabilization
Scarborough Bluffs - Port Union	Shoreline development
West Don R. - Burke Ravine/Sherwood Pk.	Proposed residential development
West Humber R.	Asian long horned beetle infestation

Many of these activities are quite large-scale and of long duration. For example, the Wet Weather Flow Management Master Plan covers all the watersheds within Toronto and is for a 25-year period. I don't consider this list complete. However, we have more to cover than available resources. We rely on TFN members to alert us to environmentally significant activities in their areas.



KEEPING IN TOUCH

October 21, 2003

Kingston Road and Warden, Monday, October 20, 2003. On a sunny morning returning to my front door, a tiny startled bird flew into the glass window of my neighbour's porch and dropped motionless, feet up. After a minute there was a slight tremor in the wings. I held the bird in my palm, thinking to keep it warm and away from three cat predators. In ten minutes it recovered enough to fly away. I identified it from Audubon's Field Guide -- a female golden-crowned kinglet. It made my day better!

Jan Holland



Flowering Timothy
grass with humbug
snail, popularly
called after the
brown-and-cream
striped sweet of
my Welsh childhood.
The correct name
is "grove snail"
and at this time
of year these
attractive
creatures are so
prolific in park-
land one has to be
careful not to
tread on them.

See "Bah Humbug",
TFN 495:12:Nov. 2000 .

LAKE ONTARIO MID-WINTER WATERFOWL INVENTORY, 2003

Conditions: This year we seem to be experiencing "real winter". There was significant snow cover and most bays, channels and inner harbours were at least partially frozen. As well, on the Count Day, Jan. 12, 2003, there was a strong westerly wind, which resulted in difficult viewing conditions for much of the lake. Conversely, the high winds concentrated the waterfowl into protected areas. Temperatures ranged from -10° to -5°C , there was minimal precipitation, and skies were clear for most of the day.

Remarks: This is the 57th 'Duck Count' for the Toronto Ornithological Club and 13th year that the entire Canadian shoreline of Lake Ontario has been covered.

This year we counted 277,135 waterfowl from 37 species. This is the third highest count ever; only the counts from 2000 (457,813) and 1999 (282,489) were higher. Record high numbers were reported for the following 13 species: red-necked grebe, double-crested cormorant, trumpeter swan, mute swan, gr. wh-fronted goose, snow goose, Canada goose, Am. black duck, mallard, gadwall, redhead, black scoter, and ruddy duck. On the other end of the scale, white-winged scoter numbers were below the average for the last 10 years, and long-tailed duck numbered "only" 86,880, which is the lowest since 1998. This decrease in long-tailed duck numbers has been occurring since the 2000 Waterfowl Count; this appears to be a real trend. Bald eagle numbers were the lowest since 1997, with only 21 reported. This low number may be caused by viewing conditions at Kingston, from where most bald eagles winter records are reported.

The graph at the end of this article depicts the dramatic increase in total waterfowl during the past 14 Counts. Note that "Divers" made the major contribution to the increase in overall numbers, but "Other" waterfowl are also steadily increasing.

In the Toronto area, 72,926 waterfowl from 30 species were reported. This is our second highest total; species with the highest counts were Canada goose, greater scaup, long-tailed duck, mallard, redhead, common goldeneye, bufflehead and gadwall.

Record high numbers were seen for tundra swan, trumpeter swan, mute swan, gadwall, redhead and lesser scaup.

Low numbers were only noted for white-winged scoter.

Rarities included: 1 red-necked grebe, 4 tundra swan, 5 snow goose, 1 wood duck, 2 green-winged teal, 3 n.pintail, 1 n.shoveler, 6 canvasback, 9 ring-necked duck, 1 harlequin duck, 2 surf scoter, 1 ruddy duck and 11 Am.coott.

Outside of the Toronto area, there were some excellent sightings.

Niagara had the only pied-billed grebe, 45 double-crested cormorant, 1 canvasback, 3 ring-necked duck, 1 harlequin duck, 14 black scoter, 2 surf scoter and 3 Am.coott.

>

LAKE ONTARIO MID-WINTER WATERFOWL INVENTORY, 2003

Compiled by: Bill Edmunds

Lake Ontario Mid-Winter Waterfowl Inventory
January 12, 2003

Species	TORONTO AREA												Hamilton	Niagara	TOTAL	COMMENTS	
	Kingston	Quinte	Presqu'ile	Port Hope	Durham	Route1	Route2	Route3	Route4	Route5	Route6	Route7					
Red-throated Loon																	
Common Loon	1														1		
Pied-billed Grebe															1	1	
Horned Grebe	2														2	4	
Red-necked Grebe	3														4	Tied Record High	
Double-crested Cormorant	2		8												24	45	
Tundra Swan	521														41	79	
Trumpeter Swan	1			5	5	19	2								16	541	
Mute Swan		2	150	4	24	52	4	12	31	54	73	7	233	121	2	104	
Greater White-Fronted Goose			2													2	
Snow Goose				1	2				2					1	5	7	
Brant																New Record High	
Canada Goose	13182	333	5	2600	2613	11675	363	74	127	667	1944	3956	18806	6905	1848	46292	
Wood duck															1	2	
Green-winged Teal	6														2	10	
American Black Duck	2760	11	64	65	102	74	18	61	23	13	158	201	548	394	55	3999	
Mallard	13856	341	95	1753	189	881	533	830	1506	1013	3045	1364	9172	4263	772	30441	
Northern Pintail	19			1				3						3	30	53	
Blue-winged Teal															1	1	
Northern Shoveler							1								1	25	
Gadwall	301					12	33	6	264	108	368	746	412	1937	94	24	2368
American Wigeon	3							3	5	5	13	14	40			43	
Canvasback										6		6	5	1	12		
Redhead	275			40	11	139		1213	2997	1317	747	227	6640	23	23	7012	
Ring-necked Duck	2					6			2		1		9	18	3	32	
Tufted Duck																	
Greater Scaup	675	1	5	168	3485	742	10	451	3819	598	10580	50	16250	16332	606	37522	
Lesser Scaup	4			4	4	33		2	6	30	30	50	151	2314	7	2484	
Scaup sp.	1												0	300		301	
King Eider														2	2		
Harlequin Duck														1	1	2	
Long-tailed Duck	31826	420	2025	204	24	33	2238	1830	2147	2542	1111	2037	11938	40362	81	86880	
Black Scoter	4													4	14	22	
Surf Scoter														2	36	240	
White-winged Scoter	750	9		15				29	37	2		114	182	3513	1065	5534	
Common Goldeneye	6097	447	311	1270	669	457	192	297	218	139	1109	858	3270	11736	2176	25976	
Barrow's Goldeneye																New Record High	
Bufflehead	736	232	244	218	592	333	131	218	481	266	799	701	2929	1152	1043	7146	
Hooded Merganser	6			1		12		7	17	35	15		86	39	3	135	
Common Merganser	7010	4		46	12	111	7	32	74	14	72	15	325	3058	854	11309	
Red-breasted Merganser	508	76		21	39	26	132	2	23	3	112	24	322	122	981	2069	
Ruddy Duck									1				1	420		421	
American Coot	2				1				4		5	2	11	79	3	96	
Swan sp.					4	2									6		
Merganser sp.	2260															2260	
Duck sp.	3219	24												95		3338	
Mallard X Black Duck			2					6	5	4	6		21			23	
Total Birds	84031	1901	2899	6427	7787	14631	3642	5335	11636	7086	20562	10036	72926	91552	9610	277135	
Total Species	26	11	8	18	16	18	12	18	21	19	19	19	30	32	23	37	
Bald Eagle	15		3		1									2		21	

LAKE ONTARIO MID-WINTER WATERFOWL INVENTORY (cont'd)

Hamilton had 2 horned grebe, 24 double-crested cormorant, 1 snow goose, 1 wood duck, 2 green-winged teal, 30 n.pintail, the only blue-winged teal (!!), 24 n.shoveler, 5 canvasback, 18 ring-necked duck, the only 2 king eider (!!), 4 black scoter, 36 surf scoter, 420 (!) ruddy duck and 79 Am.coot.

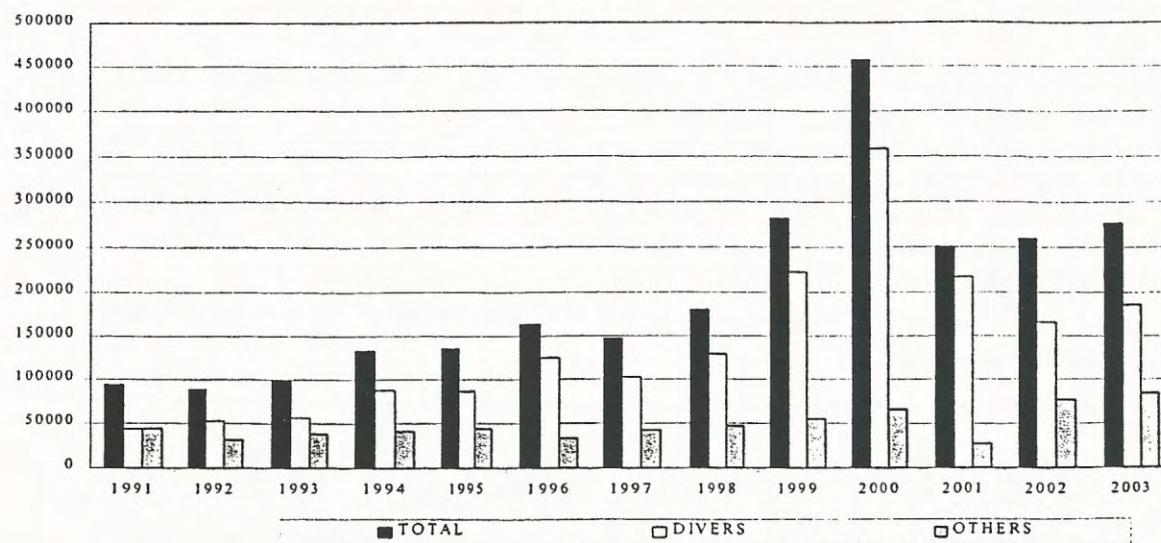
Durham had 1 snow goose and 1 Am.coot.

Port Hope had 8 double-crested cormorant, the only 2 gr.wh.-fronted goose, and 1 n.pintail.

Presqu'ile had 150 mute swan and 3 bald eagle.

Kingston had the only common loon, 2 horned grebe, 3 red-neck grebe, 2 double-crested cormorant, 521 (!!) tundra swan, 6 green-winged teal, 19 n.pintail, 2 ring-necked duck, 4 black scoter, 2 Am.coot and only (!!) 15 bald eagle.

January Lake Ontario Waterfowl Inventory
1990 - 2003



from an article compiled by Bill Edmunds in the TORONTO ORNITHOLOGICAL CLUB NEWSLETTER,
No. 132, Feb. 2003

... The prosperity of the developed countries, unparalleled in human history, is dependent upon a level of exploitation which takes no account of future needs. ... Many resources are finite and at present rates of consumption will not be there to support the survival of future generations. Our boon will be our children's bust if we do not temper our use of the resources that remain.

from ISLAND OF THE BLESSED: THE SECRETS OF EGYPT'S EVERLASTING OASIS by Harry Thurston, Doubleday Canada, 2003

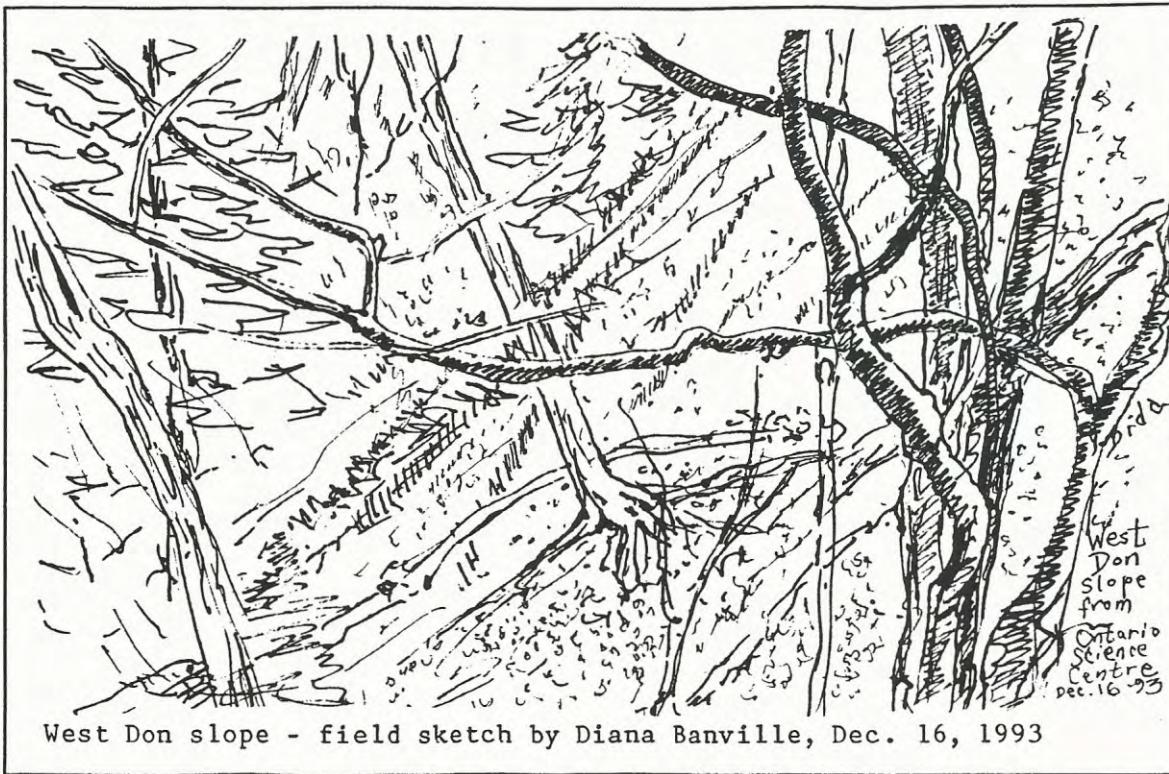
FOR READING

TREES OF THE CAROLINIAN FOREST: A GUIDE TO SPECIES, THEIR ECOLOGY AND USES by Gerry Waldron, Boston Mills Press, 2003; 275 pages, \$24.95

The contents of this book can be divided into three. The first part covers a range of issues including ecology, biodiversity, forest restoration, history of forests, and an analysis of the centuries-old derivation of the term "Carolinian Zone". The second part consists of "species fact sheets", very detailed descriptions of the 73 native species considered as Carolinian. For a restoration ecologist, the information for each species on how to identify, preserve, propagate and minimize problems is invaluable. This is followed by a glossary, list of resources (restoration, forestry and arboreta), and tables on species distribution by soil and landforms and site appropriate restoration species, the latter reflecting the author's considerable experience in the subject.

In the Ecological Restoration chapter, I found the discussion of "passive restoration" particularly interesting. A lot of money and time, both contractual and volunteer, can go into plant restorations. Too often the efforts are misguided and subsequent results bear little resemblance to the original target. What if the area was simply fenced and nature let to take its course? This is certainly not a solution in all restoration cases, but the author does provide some interesting comments on the topic.

extracted from a review by George Bryant in the FIELD BOTANISTS OF ONTARIO NEWSLETTER,
Vol. 16(2), Summer 2003



FOR READING (cont'd)

NATURE'S YEAR IN THE KAWARTHAS, by Drew Monkman, Natural Heritage/
Natural History Inc., 2002

Subtitled "A Guide to the Unfolding Seasons", this well-organized book presents key events occurring in the natural world during the year. While there is special emphasis on the Kawartha Lakes District, much of what is written applies equally to cottage country in general and, indeed, right here in the metropolis. Each month includes an introductory essay providing general information followed by a list of key natural events. Detailed descriptions follow including everything from mammals to birds to star gazing.

Author Drew Monkman is a teacher, naturalist and a past president of the Peterborough Field Naturalists. The text is nicely complemented with illustrations by Kimberly Caldwell.

Diana Karrandjas

Recently Published:

BUGS OF ONTARIO, by John Acorn, Lone Pine Publishing, 2003
\$14.95.

THE SIBLEY FIELD GUIDE TO BIRDS OF EASTERN NORTH AMERICA,
by David Allen Sibley, Alfred A. Knopf, 2003, \$29.95.
The advantage of this over the original Sibley guide is its portable size.

BIRDS OF EASTERN & CENTRAL NORTH AMERICA, 5th edition,
by Roger Tory Peterson, Houghton Mifflin, 2002, \$32.95.
Small maps now accompany species descriptions, with larger scale maps at back.

WARBLERS OF THE GREAT LAKES REGION & EASTERN NORTH AMERICA
by Chris Earley, Firefly Books Ltd., 2003, \$16.95.

SPARROWS & FINCHES OF THE GREAT LAKES REGION & EASTERN NORTH AMERICA,
by Chris Earley, Firefly Books Ltd., 2003, \$16.95.
Earley's books are very portable and unlike other field guides, the maps in each include applicable winter ranges in Central and South America.

M.M.

Recommended winter reading:

MRS. SIMCOE'S DIARY, edited by M.Q. Innis
- about life in Upper and Lower Canada in the 1790s

THE JOURNALS OF MARY O'BRIEN, edited by A.S. Miller
- life in York 1828-1838

THE BACKWOODS OF CANADA by C.P. Traill
- life in the Peterborough area 1832-1835

A GENTLEWOMAN IN UPPER CANADA: THE JOURNALS OF ANNE LANGTON, edited by H.H. Langton
- about life near Bobcaygeon in the Kawarthas 1834-1846

WINTER STUDIES AND SUMMER RAMBLES IN CANADA by A.B. Jameson
- life in Upper Canada 1837-1838

H.J. □

THE SEARCH FOR THE LAST ANCIENT FORESTS OF SOUTHERN ONTARIO

Hushed forest cathedrals, giant trees and virgin forests once covered today's Southern Ontario. After 300 years of land exploitation, urban sprawl, bulldozing and clearcutting, it seems impossible that primeval forests survive. Yet ancient forests do survive in Southern Ontario. Disbelief is still so strong, even in the scientific community, that many dismiss the notion. But the proof is undeniable. In Southern Ontario's only thorough old-growth survey -- in the Niagara Peninsula -- 16 ancient groves have been documented in the eastern three towns.

It is ironic that the largest, tallest and oldest living things have been overlooked until the past several years. We repeatedly find that "virgin" forests are still virgin territory for research and discovery. And they are still being cut down or destroyed! The intention of this article is to spur interest to search for undiscovered ancient forests in your own region before they, too, disappear.

Old-growth forest is a forest whose canopy is dominated by ancient trees (defined as 150 years or older). Preferably there should be 8 to 15 ancient trees (or more) per acre. Ancient forest is a synonym for primeval forest, pre-settlement forest, original forest, primary forest, first-growth forest.

The general categories of old-growth forest are:

1. Original - a site that has been continuously forested since European pre-settlement times.
2. Virgin - a forest with no evidence of intentional human disturbance, the rarest of all.
3. Secondary - a forest where the old trees were cut down 150 to 200 years ago or longer, but it has been largely uncut since, allowing the forest canopy to be dominated by ancient trees again.

Visual categories of old growth:

- Big-tree old growth - big trees, towering or impressive diameter, even champion size. This matches the classic image that people have for old growth. Examples: Temagami, Niagara Glen, Backus Woods.
- Dwarf old-growth - features dwarf trees of harsh sites such as on the Niagara Escarpment, or savannahs, summits, rocky or sandy barrens. Trees have twisted, bonsai, gnarled or bizarre growth forms.

How to recognize old-growth forest:

You don't have to be an expert or scientist to recognize old-growth forest. The visual signs are easy for anybody to learn. Although coring a tree with a special drill is a certain way to measure tree ages, you can use visual features to estimate age. The more old-growth indicators, the more confident you can be it is old growth.



OLD GROWTH FORESTS (cont'd)

- Big trees (3 feet or more in diameter), preferably more than eight per acre; of species able to attain great longevity (200 to 500 years or more): hemlock, cedar, oak, maple, pine, ash, yellow birch, beech, walnut, sycamore, tulip tree, black gum. Lack of big trees does not mean "not old growth" since dwarf trees may reach 500 to 1700 years!
- Sizable specimens of commercially valuable species - large black walnut, black cherry, white pine, cedar -- an excellent sign!
- Antique bark. After 150 years old most tree bark becomes very different from younger tree bark -- balding, shaggy, craggy (deeply grooved, fissured), platy. Excellent sign! Includes same trees listed for big trees.
- Buttressed roots - trunk bases flare out or swell prominently.
- Soaring branchless trunks, with lowest bough 25 to 60 feet up, even to 120 feet!
- Stag-headed crowns. Trees with thick, right-angled boughs like a stag's horns.
- Mossy trunks -- the higher up a trunk moss grows, the more certain the tree is old growth.
- Bizarre growth forms -- dwarf or bonsai-like trees; knotty, knobby, gnarly trunks; stilt roots.
- Pit and mound shapes on forest floor - indicates the ground was never cultivated.
- Many large logs in different stages of decay -- for some ancient forests.
- Logging or human disturbance missing or minor -- few to no stumps or logging roads, young or open-grown trees, or planted or non-native trees (trees typical of disturbed forests).

How did old-growth forests survive?

The answer is usually "sheer luck"; however, it may be because the trees are located on sites so rugged, steep, inaccessible or "poor" (summits, cliffs, rocky slopes, swamps, sandy barrens) as to deter old-style logging. Some sites were saved by caring owners of estates, recreation camps or rural landowners who deliberately set aside their majestic forests, inspired by their beauty. Some forests survive on old public properties (parks, preserves, institutional lands) purchased before logging or clearing got to that site.

On which properties today are surviving old growth trees most likely to be cut down?

Ontario Ministry of Natural Resources or crown lands where timber "management is allowed, and most properties owned by individuals.



OLD GROWTH FORESTS (cont'd)

Examples of old growth forests in Southern Ontario:

Little is known about surviving old growth forests in Southern Ontario simply because no one has conducted a comprehensive regional survey. The first regional surveys are those of Dr. Doug Larson's study of Niagara Escarpment ancient cedars and the Federation of Ontario Naturalists' Woodland Heritage of Southern Ontario report (1999). The author has completed the first year of a comprehensive Niagara Peninsula survey, hopefully to expand to other parts of Southern Ontario. Here are some of the discoveries:

Krug Forest (360 acres east of Kinghurst) - phenomenal ancient maple-beech forest, up to 300 years old

Baker's Woods (95 acres east of the City of Vaughan) - impressively large 300 year old sugar maples

Marshall Woods (2.5 acres near Owen Sound) - magnificant, primeval northern hardwoods - hemlock and immense cedars!

Walker's Woods (2 acres at Sauble Beach, Lake Huron) - primeval 350 year old cedar and hemlock on ancient dune

Springwater Forest (130 acres at Aylmer) - region's grandest upland beech/ maple forest

Marcy's Woods (260 acres on Lake Erie shore) - world's last known old growth black maple forest; on ancient sand dunes.

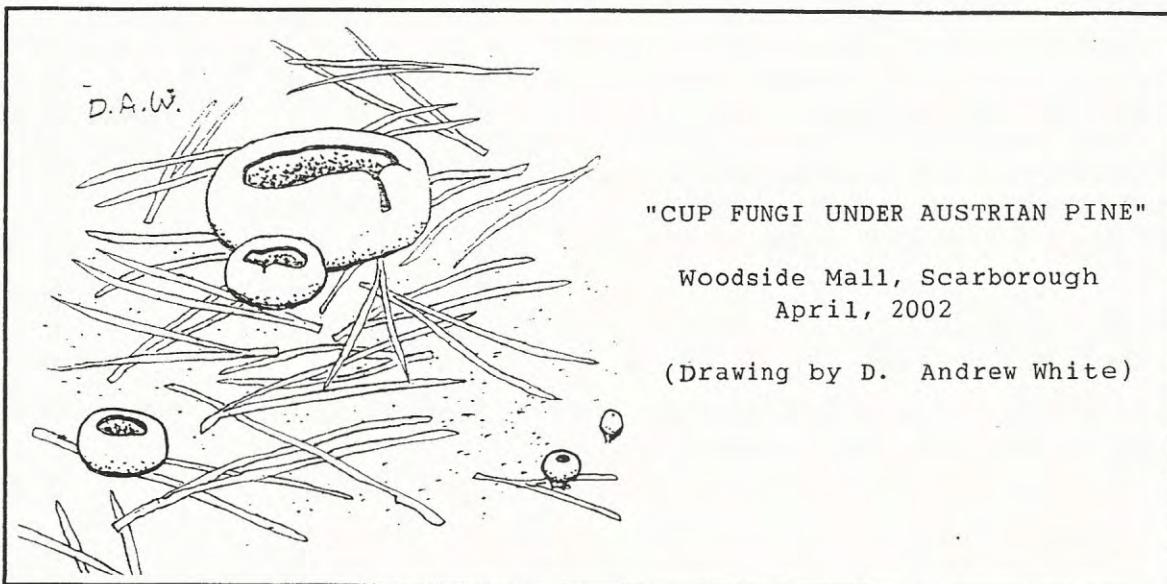
Paradise Grove (52 acres near Niagara-on-the-Lake) - stunningly large 275-year-old red, white and black oaks on former savannah

Brock's Monument Grove (15 acres at the place where the Bruce Trail begins) - Canada's only old growth scarlet oak forest

Niagara Gorge (100 acres in the Niagara Glen) - fabulous gnarled 300-800-year-old cedars plus towering maple-tulip tree forest

Backus Woods Conservation Area (200 acres near Long Point) - 550-year-old black gum plus ancient Carolinian hardwoods

from an article by Bruce Kershner, in EARTHWAYS (Sarnia), October, 2003



PUTTING WIND TURBINES IN PERSPECTIVE

Numerous studies during the past two decades and more, at virtually every new wind energy installation, have now been undertaken to estimate bird mortality at wind turbines. Studies have covered the range from one to thousands of turbines, and from mountains to off-shore, across Europe and North America. These studies were initially driven largely by one situation in California where, with thousands of turbines, it was felt that the level of mortality of birds was unacceptably high. At this locality, the Altamont Pass, more extensive recent studies have found a mortality rate of about 0.23 birds per turbine per year, but that the main concern is for raptors, particularly golden eagles (*Aquila chrysaetos*). Similar problems have not been found at other wind energy facilities even in California, but the concern for golden eagles and other raptors is important.

Through many studies, and millions of dollars spent to find answers, the results have indicated relatively low numbers of birds killed at wind turbines, and often none have been found, especially at single turbines. The study at Pickering also indicates that the turbine at Pickering Nuclear Generating Station (PNGS) is not going to have a significant impact on bird populations, despite there being plenty of birds flying about the area*. The local resident birds soon learned of the presence of the tower and easily avoided it. I could see no indication that the turbine disrupted normal activity of the local birds. Some may have had to fly slightly farther to move safely about. This was unlikely to have seriously affected their foraging activity. Smaller birds just moved about below the turning blades as if they were not even there. Migrants continued to pass through the area, and nesting birds continued to nest as usual.

The recorded mortality at the turbine was half the number of birds that I also recorded as dead on a one kilometre section of Sandy Beach Road that runs beside and north of Alex Robertson Park, where I drove to and from the turbine. The road was likely to have experienced higher scavenging by crows and gulls, since these birds largely avoided the turbine, but were regular in the parks on either side of the road.

From all available mortality studies at wind turbines in the United States, the average outside California is about 1.83 fatalities per turbine per year (and 2.2 including California). These are considered to be accurate estimates if not slight over-estimates, as detailed procedures have been followed. Given that each of the free-roaming house cats in North America is capable of killing more than 1,000 small animals, including birds, each year, the wind turbine at Pickering is undoubtedly far less lethal than the two cats roaming the area. Each house in North America has been estimated to kill on average between 1 and 10 birds per year. Wind turbines would not seem to be appreciably different than houses in the level of avian mortality reported. ▷

* [However, nine bats were found dead at the foot of the turbine.] K.F.

WIND TURBINES IN PERSPECTIVE (cont'd)

The level of avian mortality at wind turbines has always been found to be absolutely insignificant when compared with tall buildings and tall communications towers that routinely kill hundreds and even thousands of birds each year. There has never been a record of a mass kill at a wind turbine. The highest mortality in one night ever recorded at a single turbine in North America was 14 birds at two turbines following a night of severe thunderstorms. The highest I have come across for Europe at a single tower was 43, largely because there was a steady light attached to the turbine tower that night, attracting the birds; the turbine was not operating.

The main factors that seem to determine mortality rate at towers of various types are poor weather, lights, guy wires, and height. In clear weather, even in coastal situations, the chances of a bird strike at a wind turbine are virtually zero. Hence, raptors that migrate during the day are very unlikely to be killed. (In California, it is a population living among the turbines that is at risk.) Poor weather may bring nocturnal migrants down closer to the earth where they are more susceptible, and such weather reduces visibility. But, the occurrence of such weather, in inland situations at least, is unpredictable in time and space, such that the turbine location is not a predictor of potential mortality. Even if a flock of migrants were to be low enough during bad weather, over 80% can pass right through the blades of a rapidly spinning variable speed turbine and remain unhurt. The rate of rotation is much slower at Pickering and for any turbines in Ontario, and even less likely to cause mortality as blades are easier to see and avoid. Should a bird ever get to a position of having to fly through the rotating blades, there is more time to do so if blades are moving slowly. The increased time/space between blade passes should reduce the chance of collision. Local birds soon learn the location of towers and avoid them even in darkness, hence local birds are at low risk.

Lights are known to attract birds and to disorient them, causing them to circle and fall from exhaustion, or more likely strike guy wires or glass windows where they are killed or injured. But, modern turbines do not have guy wires and the lighting is minimal, and usually at least flashing, if not a strobe light. The Pickering turbine has a single strobe light by day, and a flashing red light at night. Flashing lights are generally considered to be less lethal than steady lights, although strobes apparently are even better. The lighting on wind turbines is not likely to be of significant impact in most situations.

The height of a tower is generally believed to be one of the most significant factors, with towers below 400 to 500 feet (122 to 152 metres) causing minimal mortality. The Pickering turbine and others used or to be used in Canada fall below this height, and thus, are likely to continue to cause minimal mortality. The greatest threat to all wildlife is still loss and/or degradation of habitat.



FROM THE WILDS OF BRAMPTON

Below the Sheridan College complex lies a small man-made lake (or very large pond) encircled by an earth road -- I refuse to write dirt (we are the ones who make the dirt). Nestled among the English plantain and the scentless chamomile daisies was a snapping turtle, 1 to 2 inches long. S/he was not about to be disturbed, while keeping a malevolent small eye in my direction. S/he was in turtle heaven: between the lake and the fast-flowing South Fletchers Creek which runs through Sheridan property. The College is busy selling off its land for development, so it is important to go while it is still "there". The huge old trees are tended, the grass is mown. Only the garbage remains unheeded -- the eternal Cinderella of the environment.

Eva Davis

SNAPPING TURTLE

- drawing by
Eva Davis



THERE'S SOMETHING IN THE WOODCHIPS

Woodchip beds are great for fungus-hunters. For most of the year they are virtual deserts. The depth of mulch keeps weeds at bay, and all they need are the occasional rake. But in perfecting a weed-free environment, we have unwittingly created an astounding habitat for wood-rotting fungi. Interestingly these fungi, which are responding so well to the new possibilities we have created, often seem to be rare in the natural world. By our use of wood-chips, we have unwittingly turned the natural order on its head. The best places to look for them are beds of old chips that have been allowed to rot down. Chips from broadleaved trees are much better than conifer or bark mulch. And the season for them can be quite long, starting after rain in August and going on to November or even later. New species are being discovered every year. The problem is identifying them: it has all happened so quickly that some now common woodchip toadstools have not made an appearance in the field guides!

extracted from "Highlights October" by Peter Marren in BBC WILDLIFE, Vol. 21, No. 10,
Oct. 2003

□

THE WASHED UP PIGEON

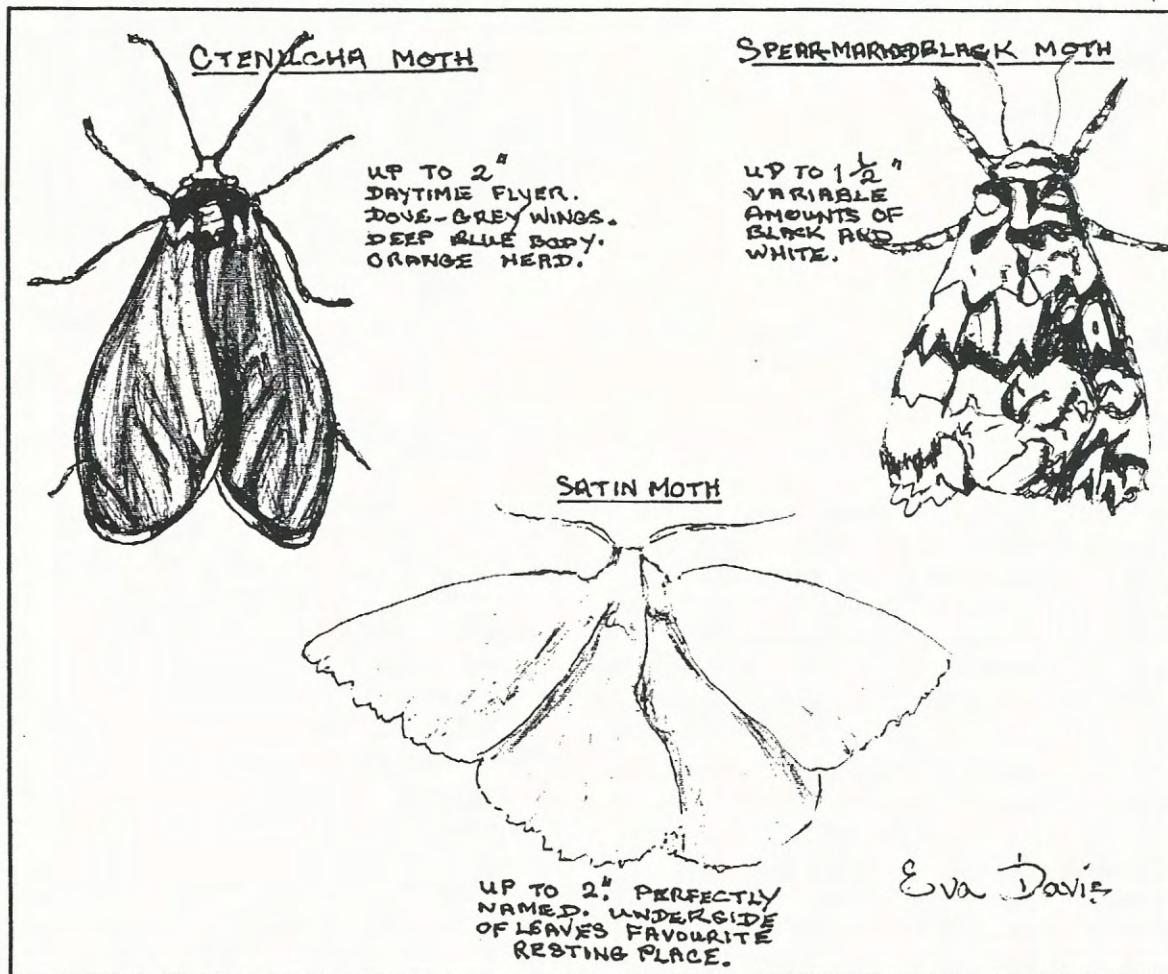
I thought it was washed up. Crouched in a puddle during a rainstorm, the pigeon was twitching, its feathers getting wetter and wetter.

Suddenly one wing was raised and turned so the underside was exposed. After it was thoroughly soaked it was tucked back into place and the other wing got the same treatment.

I now had the impression the pigeon was enjoying a shower though it was still not standing. After several repeats of the wing soaking, the pigeon stood up, walked a few steps and flew away.

It wasn't "washed up"; it was just washing up.

Helen Juhola, Oct. 2003



CTENUCHA, SPEAR-MARKED BLACK, AND SATIN MOTHS
Kinmount, Ontario, July, 2002.
Drawings by Eva Davis.

IN THE NEWS

SURPRISE GUSHER REVEALS ANCIENT STREAM

There's a river running through High Park, bubbling with cold, clear water that is thousands of years old and pure enough to drink untreated. Its mysterious presence has been known, till now, only to a few. You can't see it, hear it or swim in it. There are no fish. But it surely is there, percolating 50 metres below the ground while the city goes about its business above, entirely unaware.

It is called the Laurentian, and winds from Georgian Bay deep in a pre-glacial bedrock valley and through the hilly terrain northwest of Toronto before finding its way to Lake Ontario. Until the city capped two old artesian wells in High Park, nobody knew exactly where the southerly portion of the underground river was, or how it made its way into the lake.

It was only after drilling began in August on a monitoring well near the capped wells that it was discovered. The monitoring well exploded, spewing sand, shale and gravel the size of golf balls while rocketing a plume of water 15 metres into the air. Perplexed workers managed to cap the monitoring well. Then the caps on the old artesian wells in the park's north-east corner blew off. When they finally managed to seal the caps on all the wells, water began running out of the hills in the surrounding area. Only then did the hydrogeologists and engineers working on it realize what they had tapped into.

"It's a very exciting discovery. It finally confirms what we've always suspected: that there is a bedrock valley here. This represents one of the big improvements to understanding how things link up underground," according to the York-Peel-Durham-Toronto Groundwater Consortia, which is studying the urban environment's impact on groundwater quality. Initial tests showed the water is at least as drinkable as the city's treated water. But it tastes distinctly of iron, which means it can't be routed into the water system without costly filtration.

The find began through work on two sedimentation ponds in High Park that had been used as mineral baths more than a century ago but eventually fell into disuse. At one point, the city's stormwater runoff system was routed through the former mineral baths and then into High Park's Spring Creek, which empties into Grenadier Pond. As part of a larger initiative to clean up stormwater reaching the lake in the west end, it was decided to grow plants on the bottom that would filter runoff. While draining ponds to do that work, the old artesian wells were discovered. To comply with provincial regulations, the wells had to be capped. The group studying groundwater flow decided to sink its test well at the same time, since a drilling contractor would already be there.

extracted from an article by Jack Lakey, in the TORONTO STAR, September 18, 2003



IN THE NEWS (cont'd)

NITRATE POLLUTION RAISES WATER BILLS

Britain's water supplies are being seriously polluted by nitrates that make drinking water potentially unsafe. So great is the contamination that water companies fear huge extra costs for installing energy-intensive filtration plants to deal with the problem.

Most of the nitrates are pouring into underground water channels from over-fertilised arable fields and over-stocked animal farms. The fertiliser leaches into the ground, as does the nitrate-rich slurry from livestock. The problem is compounded by nitrogen dioxide from vehicle exhausts, which turns into nitrates.

Nature's solution is to allow vegetation in wetland areas and naturally occurring microbes in the ground to remove the nitrates. But over the past 50 years vast areas of wetland have been drained while planners have concentrated on efficient drainage, rather than letting groundwater filter into the ground where it would be purified.

from an article in the GUARDIAN WEEKLY, August 14-20, 2003

SMELLY TAP WATER IS DRINKABLE, CITY SAYS

Toronto's tap water has taken on a noticeable "earthy taste and odour" but is still safe to drink. The odour is caused by "seasonal biological changes in Lake Ontario and typically occurs in the late summer or early fall". City officials first spotted this problem in 1994, and they've been trying to find a solution for it ever since. To reduce the taste and odour, officials suggest keeping a jug of water in the refrigerator and adding ice cubes or a few drops of lemon juice to it.

The water will return to normal once the lake temperature starts to fall.

from an article in THE GLOBE AND MAIL, September 18, 2003

CLEANUP FROM PICKERING TRANSFORMER OIL SPILL PEGGED AT \$1 MILLION

Damage from a transformer oil spill into Pickering's Pine Creek could top \$1 million. The spill was caused by a ruptured transformer. Hydro One officials said about 177,000 litres of mineral oil, used as coolant in a giant transformer, spilled. About 20 per cent, or 36,000 litres, leaked from the Cherrywood hydro substation sometime after the rupture occurred.

The smelly oil made its way through storm sewers into Pine Creek, which winds down to Frenchman's Bay on Lake Ontario. Hydro One officials said the oil involved contained "extremely low levels" of polychlorinated biphenyls (PCBs), which have been linked to cancer in high concentrations. While the oil is not considered a health hazard to humans, fish and wildlife, officials are still trying to assess the damage to creatures in the creek. The major damage appears to be confined to vegetation along the banks. The entire creek side along a 4- or 5-kilometre area will have to be dredged and the vegetation replaced.

from an article in the TORONTO STAR, October 3, 2003



IN THE NEWS (cont'd)

DOG-STRANGLING VINE INVADES EASTERN ONTARIO

Even the name sounds scary: Dog-strangling vine. The two-metre-high plant from Eastern Europe has invaded Ottawa. It comes from the Black Sea region -- the same area that gave us the zebra mussel. You can't kill it by digging, slashing or spraying. It just comes back, tougher than you are. What makes it such a worrisome invasive is that it can grow in woodlots (as well as full sunshine). Some woodlots have been completely taken over. There's not much you can do to fight it. Conventional herbicides such as Roundup (all-purpose vegetation killer) and Garlon (for woody weeds) don't have much effect unless the plants are sprayed over and over for several years, leaving a dead zone with no plants growing at all. And even then a few seeds may live two or three years in the soil.

The correct name for the invader from Eastern Europe is swallowwort. There's a pale and a black version; the pale one is doing most of the damage in Canada, though both are problems in New England. Unfortunately, people keep planting it as a curiosity, and its seeds escape. The Canadian Wildlife Service lists it as "a serious pest in southwestern Ontario". Aggressive in Eastern Ontario, the plant has been considered very invasive in ravines in the Toronto area.

This vine climbs trees, but dies back to its roots in winter, so it never grows more than a couple of metres high. The plant is a member of the milkweed family and produces seed pods that burst open, letting fluffy little seeds spread on the wind. Roughly 80 per cent of the seeds germinate. That's an enormously high proportion for any plant. And 75 per cent of the seedlings survive to adulthood. That's very high too. Oddly, the plant has so many natural enemies -- mainly beetles -- in its native territory that Russian botanists are having a hard time finding samples. It was even on an international "red list" of endangered species once. The plant is so rare in Russia that when the Russians tried to supply beetles of the type that eat dog-strangling vine, they looked all summer and couldn't find any.

extracted from an article by Tom Spears, in THE OTTAWA CITIZEN, September 24, 2003



By creating a local hot spot of bird abundance, those of us who maintain bird feeders are also creating a concentrated food source for songbird predators such as Cooper's hawk, sharp-shinned hawk, merlin and shrike. Not surprisingly, these predatory species take advantage of the opportunity, and in the case of Cooper's and sharp-shinned hawks, seem to be doing so in increasing numbers. If you want to give a prey species a better chance at surviving an attack, ensure that your feeders are within two metres of dense cover such as an evergreen tree or brush pile. If a predatory bird does take up temporary residence in your area and you want to discourage it, simply stop feeding for a week or so.

from "Project FeederWatch: 2--2-2003 Canadian Summary" by Ramsey Hart in
BIRDWATCH CANADA, No. 25, Fall 2003

IN THE NEWS (cont'd)

"ARE WE THERE YET?"

Austrian scientists have provided a flock of lazy rare birds with a car and driver because they are incapable of migrating on their own. Ornithologists have spent more than two years breeding the northern bald ibis species. They had to drive the birds to their winter quarters in northern Italy after discovering the birds were unable to make the 500-mile trip on their own. The "lazy" birds were used to being taken care of and they refused to fly south.

from an article by Michael Kesterton, in THE GLOBE AND MAIL, September 8, 2003

MONKEYS GO ON STRIKE

Even monkeys seem to know the value of equal pay for equal work. When rewarded similarly for the same task - in this case, exchanging a small rock with a scientist -- capuchin monkeys worked happily for a slice of cucumber. But after they witnessed a partner getting a coveted, succulent grape for the bit of granite, the cucumber-paid monkeys took offense. Some went on strike. Some kept halfheartedly doing the work but refused to accept the stinkin' cucumber. There were none that didn't care.

from an article by Michael Kesterton, in THE GLOBE AND MAIL, September 19, 2003

OUT OF SITES

"Seasonal differences in freeze and thaw cycles of water bodies can have serious impacts on bird and animal migration patterns, breeding seasons, water quality and food supplies for fish and mammals," says Nature Canada magazine, published by the Canadian Nature Federation. "Becoming an IceWatcher is easy. Simply choose a body of water to monitor and record the freeze and thaw dates. Armchair watchers take note: all you need is a good view of the water." To learn more about the program, visit www.cnf.ca/icewatch. [or call the CNF at 1-800-267-4088].

3

from an article by Michael Kesterton, in THE GLOBE AND MAIL, September 19, 2003

THE BEST JUMPER?

The spittlebug, a common garden pest found worldwide, appears to claim the unofficial title of the world's best jumper. The tiny green insect, which sucks juice from alfalfa and clover, can leap more than two feet into the air. By comparison, a flea jumps about eight inches high and up to 13 inches in the long jump. The finding is remarkable because the 6-millimetre long spittle bug -- about the size of a pencil eraser -- is bigger and heavier than the bloodsucking flea, but out-jumps its rival by accelerating faster. When it is not jumping, the insect uses its smaller forelegs to move around while dragging its hind legs which are constantly poised for liftoff.

from an article by Michael Kesterton, in THE GLOBE AND MAIL, August 11, 2003

IN THE NEWS (cont'd)

RESPECTED BIRD MONITORING GROUP LOBBIES TO WIPE OUT T.O.'s WILD SWANS

It's hard to imagine why anyone would want to wipe out wild mute swans, who grace Toronto's waterfront year round. But that's exactly what the prestigious Bird Studies Canada (BSC) is prescribing. The species, found in Eurasia, is not native to North America. Mute swans are escapees, having made their way into the wild here from parks, estates and zoos where they've commonly been kept for at least a century and a half. Slowly at first, as always happens in such instances, and then more rapidly, a free-living population of swans became established in eastern North America. They are now a fixture on Toronto's waterfront.

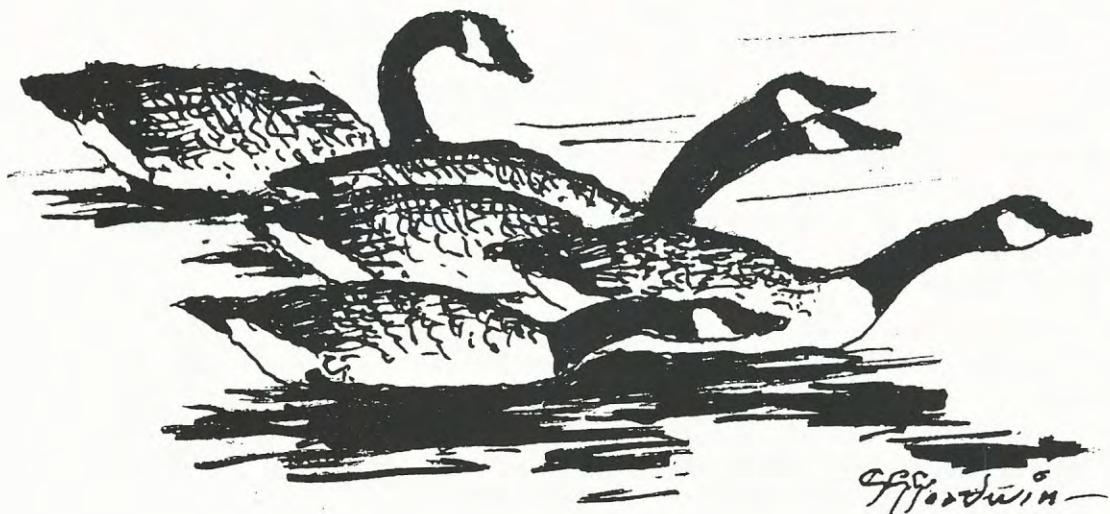
The trumpeter swan is also common on our shoreline, has a long, black beak and is native to western North America. It was slaughtered by hunters and trappers (swan skins were part of the fur trade) to such an extent that it was once declared extinct! While the mute is being targeted, the trumpeter is actually being re-introduced in a move backed by the Ontario Ministry of Natural Resources. In terms of their ecological impact, the two are identical. Why is one species deemed odious while the other is prized? The answer is that hunters prefer the trumpeter swan, and the mute swan competes with it.

Many waterfowl hunters are emotive romantics who see the trumpeter as the "right" swan because it's a native North American species -- and one that is far likelier than the mute swan to present a sporting target in flight.

I think the evidence that trumpeters bred this far east is thin, at best. The archaeological data just suggests that the [trumpeters] were a trade item. Other than a few bones, there is scant evidence of early trumpeter swans coming as far east as Ontario, but now they are being bred and released even in New Jersey. The trumpeter isn't the only native Canadian swan Americans hunt. They also go after tundra swans, which appear in Toronto, sparingly, on migration.

extracted from an article by Barry Kent MacKay, in NOW, Sept. 4, 2003

□



THE WEATHER (THIS TIME LAST YEAR)

December 2002, Toronto

December was mostly nondescript. The El Nino effect was evident, but half-hearted. A few sharp cold outbreaks early in the month gave way to a more expected El Nino pattern with fairly mild temperatures and overcast skies, and just light precipitation. The month averaged only slightly above the long-term average and was in fact considerably cooler than in most recent years, especially 2001. Both rainfall and snowfall were well below normal with frequent but very light falls. Total precipitation was just under half the normal (32.5 mm at Pearson as opposed to 65.5 mm; and 34.6 mm downtown as opposed to 71.5 mm). Snow cover was very interrupted and thin when it occurred. Sunshine at Pearson Airport was 67.9 hours, which is slightly below the average (about 75 hours). Conditions were especially dreary in the second half of the month. An anomaly to this dull, uninspiring pattern was the brisk winds. They averaged 2.5-3 km/h above normal. Pearson Airport's 19.1 km/h average was the highest since 1985, and Toronto Island's 23.4 km/h was the highest since 1988.

January 2003, Toronto

In contrast to the previous winter's pattern, January was a decidedly wintry month, with temperatures averaging 2°C below the long-term average (1971-2000). The mean temperatures of -8.3°C at Pearson and -6.2°C downtown were the lowest of any month since January, 1994. Snowfall was fairly heavy, being 41.4 cm at Pearson (as compared to the normal of 35.4 cm) and 55.6 cm downtown (normal being 38.2 cm). These amounts were vastly exceeded in 1999, but the combination of frequent falls and consistently cold temperatures meant that a continuous snow cover was established at the beginning of the month. For the first time since 1981, there was no measurable rain -- only a trace fell. Thus, total precipitation fell below normal by a modest amount. Persistent cold and snow cover, however, worked in favour of hydrological recharge in southern Ontario. Sunshine was scanty for the first part of the month but became more abundant later. The total was 106 hours at Pearson, as opposed to the normal of around 90. Winds (and wind chill) averaged slightly above normal, being 19.9 km/h at Pearson Airport, and 24.0 km/h at Toronto Island. These values are about 1.5 km/h above normal.

The overall pattern was one of a gradually decreasing El Nino influence (clouds and slightly mild conditions), with frequent snowfalls. From January 10th on, it became bright and often very cold. It stayed below freezing at Pearson continuously during this period, and never went above the low single digits during the first third of the month. It dropped close to -20°C on at least one day for the first time since January 2000, although no records were approached.

The month was a surprise considering the El Nino effect this winter. This El Nino, however, was of only moderate intensity and was overridden (at least in eastern North America) by oceanic and atmospheric circulation patterns in the Atlantic and Arctic. Canada, aside from the populated southern areas, was actually very mild and fit well within the El Nino pattern. It was especially mild on the west coast.

COMING EVENTS

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

- Sat. Dec. 6 from 8:30 am (all day) with Dave Milsom 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.
- Sat. Jan. 10 from 1:30 pm to sunset with Glenn Coady to see gulls and waterfowl at Sunnyside. Meet in the Sunnyside parking lot at the foot of Windermere Ave. Dress warmly.

Toronto Entomologists' Association

- no meeting in December
- Sat. Jan. 24 at 1 pm at Northrop Frye Hall, Room 113, 73 Queen's Park Cres. East -- a talk on forensic entomology by David Gibo. Call 905-727-6993 for more details.

High Park Sunday afternoon walking tours beginning at 1:15 pm

- none in December
- Jan. 11
- Jan. 25

Walks begin just south of the Grenadier Restaurant. \$2 donation. Call 416-392-1748 or 416-392-6916 for more details.

Citizens Concerned About the Future of the Etobicoke Waterfront

- Sat. Dec. 13 from 9 am to 11 am at Humber Bay Park East, a bird walk with Ron Scovell
- Sat. Jan. 10 from 9 am to 11 am at Humber Bay Park East, a bird walk with Andrew Keaveney
Call 416-252-7047 for more details.

Ian Wheal Heritage Walks (416-570-6415)

- Sat. Dec. 6 at 1 pm, meeting at the southeast corner of Queen St. West and Spadina Ave. -- Sewing and Needle Trade in Toronto
- Sun. Dec. 21 at 1:30 pm, meeting at northwest corner of Bathurst St. and College St. -- Denison Ponds (Russell Creek)
- Fri. Dec. 26 at 1:30 pm, meeting at the foot of Bathurst St. and Lakeshore Blvd. - lost shoreline
- Thurs. Jan. 1 at 1:30 pm, meeting at the ferry docks at the foot of Bay St. -- Toronto Islands
- Sat. Jan. 24 at 1:30 pm, meeting on the Queen St. East bridge over the Don River -- Toronto Shoreline

Toronto Region Conservation Authority

- Sat. Dec. 6 from 1 pm to 3 pm - Winter Waterfowl Watch at Humber Bay Park. Call 416-661-6600, ext. 5660 to register.



TFN OFFICE HOURS - Friday mornings 9 am to 12 noon
Publications, hasti-notes, special occasion cards and used nature books for sale. □

TORONTO FIELD NATURALISTS

2 Carlton St., #1519
Toronto, Ontario M5B 1J3
416-593-2656

Web site: www.sources.com/tfn

MR. & MRS. A.O. JUHOLA
112-51 ALEXANDER ST.
TORONTO ON M4Y 1B3

3 2

(K)
XX13

Publications Mail
Registration No.
40049590

TORONTO FIELD NATURALIST

Published by the Toronto Field Naturalists, a charitable, non-profit organization, the aims of which are to stimulate public interest in natural history and to encourage the preservation of our natural heritage. Issued monthly September to December and February to May.

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
TORONTO FIELD NATURALISTS' RAVINE SURVEYS.....ea	\$ 4.00	TORONTO ISLANDS: PLANT COMMUNITIES AND NOTEWORTHY SPECIES, 1987	\$ 4.00
Survey #1 – Chatsworth Ravine, 1973		TODMORDEN MILLS, 1987.....	\$ 4.00
Survey #2 – Brookbanks Ravine, 1974		VASCULAR PLANTS OF METROPOLITAN TORONTO, 1994 ...	\$ 8.00
Survey #3 – Chapman Valley Ravine, 1975		TORONTO CHECKLISTS (birds, other vertebrates, butterflies, other invertebrates, mosses, other plants)	each 50¢
Survey #4 – Wigmore Ravine, 1975		HUMBER FORKS AT THISTLETOWN, 2000	\$ 4.00
Survey #5 – Park Drive Ravine, 1976		NO G.S.T.	
Survey #6 – Burke Ravine, 1976		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 #7 – Taylor Creek-Woodbine Bridge Ravines, 1977			
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
not to give out its membership list.*

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