

TORONTO FIELD NATURALIST

Number 466

March 1997

Red-tailed Hawk

- light phase

(Drawing by
D. Andrew White)



Inside

Amphibians & reptiles 18,27
Birds 1,2,7,8-9,10-11,19,21,22,23,25
Coming events 29
Invertebrates 7,25
Issues 5-6,22,23,26
Mammals 6,17,24
Plants 4,12,16,19,25
Projects 19-21

Reading 7
Trees & shrubs 13-15,21,26
TFN meetings 2
newsletter submissions 2
outings 3-4
President's report 5-6
Weather 28

TFN MEETINGS

- Sunday, March 2, 1997 - RESPONSIBLE ECOTOURISM, an illustrated talk
at 2:30 pm by Anne Brobyn of Hibiscus Tours
- in the Northrop Frye Hall - The speaker will help us discover how to
Victoria University determine what constitutes a responsible tour,
73 Queen's Park Cres. East and how travellers can fulfill their role in
sustainable tourism development.
- + a "social hour" beginning at 2 pm with free coffee and juice
 - + a sale of "Always Alice" cards (Call 767-6149 for special orders.)

NEXT MEETING: Sunday, April 6, 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
605 - 14 College St.
Toronto, Ontario M5G 1K2

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



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.

- Saturday METRO ZOO - nature arts Rouge, Scarborough
 March 1 Leader: Alf Buchanan
 10:30 am Meet at the zoo entrance on the west side of Meadowvale Rd.
 Lunch optional.
 Bring sketching materials and/or camera. There are many subjects to enjoy and interpret. Over lunch we usually show and discuss our creations.
- Sunday TFN MEETING [See page 2 for details.]
 March 2
 2:30 pm
- Wednesday HIGH PARK - nature walk Toronto
 March 5 Leader: Margaret Catto
 10:30 am Meet at the park entrance on Bloor St. West opposite High Park Ave. Lunch optional.
 With its many habitats, this is always a good place to observe birds.
- Sunday UPPER BEACHES - land forms Toronto
 March 9 Leader: Ken Cook
 1:30 pm Meet at the southeast corner of Woodbine Ave. and Gerrard St. East.
 We will be exploring the streets to try and understand the landforms in this hilly area with its great oak trees.
- Tuesday DEER PARK LIBRARY - nature photography Toronto
 March 11 Leader: Helena Wilcox
 2 pm to Meet on the second floor of the Deer Park Library which is on
 4 pm the north side of St. Clair Ave. East, one block east of Yonge St.
 Members are invited to bring their own nature photos, up to 20, or just come and enjoy the afternoon. A projector and screen will be provided.
 If you have any questions, please call Mary Cumming at 781-5061.
- Thursday WARDEN WOODS - nature walk Taylor Cr., Scarborough
 March 13 Leader: Susan Weiss
 10:30 am Meet at the subway station at the southeast corner of Warden Ave. and St. Clair Ave. East. Morning only.
 Time to begin looking for early migrants and swelling buds in this wild ravine. ▶

MARCH OUTINGS (cont'd)

Sunday MUD CREEK - nature walk Don tributary, Toronto
 March 16 Leader: Julie Nettleton
 2 pm Meet at the southeast corner of Avenue Rd. and Lytton Blvd.
 This is a joint outing with the North Toronto Green Community to explore the
 upper reaches of Mud Creek.

Wednesday TORONTO ISLAND - nature walk lakeshore, Toronto
 March 19 Leader: Louise Orr
 10:30 am Meet at the ferry docks at the foot of Bay St. Bring lunch.
 Dress warmly for the boat ride. Bring binoculars and notebook. This is a
 good opportunity to look for early migrants and other signs of spring.

Sunday HUMBER CARRYING PLACE - human & natural history Humber, York
 March 23 Leader: Madeleine McDowell
 1:30 pm Meet at the northwest corner of Bloor St. West and Jane St.
 Explore the historic route up the Humber. Many oaks still survive along
 this scenic route which is within view of the river.

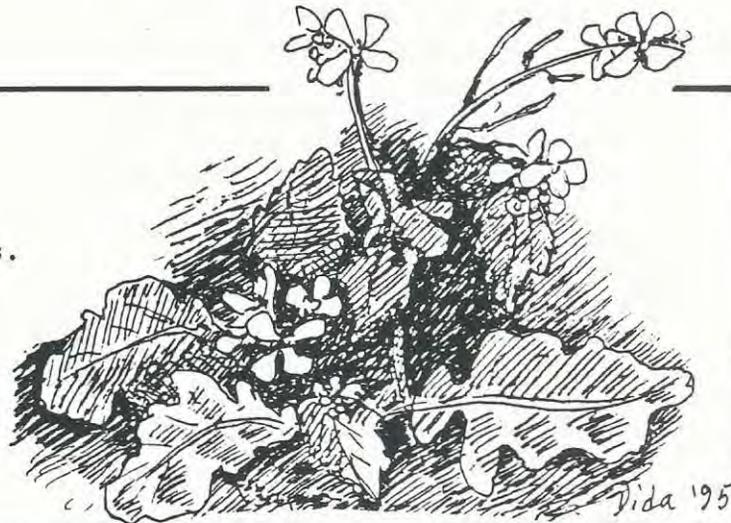
Wednesday LAKESHORE - nature walk lakeshore, Toronto
 March 26 Leader: Phoebe Cleverley
 10:30 am Meet at the foot of Leslie St. Bring lunch.
 The spit is closed during the week, so we will be exploring the lands west
 of there toward Cherry Beach, looking for birds and other signs of spring.

Sunday MORNINGSIDE PARK - nature walk Highland Cr., Scarborough
 March 30 Leaders: Morris Sorensen & Starr Whitmore
 11 am Meet at the park entrance on the west side of Morningside Ave.
 north of Lawrence Ave. East. Bring lunch.
 Officially the first flower to bloom in this region, the skunk cabbage in
 this park is worth the trip.

□

COMMON CHARLOCK or
 WILD MUSTARD
 is a Eurasian species
 established in Toronto
 with lemon-yellow flowers.

(Field sketch by
 Diana Banville in
 L'Amoreaux Park,
 Highland Creek,
 Scarborough,
 September 30, 1995.)



PRESIDENT'S REPORT

Some bits and bites further to last month's report. A few more instances of good things that municipal agencies are up to have come to my attention since last writing. The City of Scarborough has been moving ahead with its project of protecting and restoring the ravine of Centennial Creek, a small tributary that empties into the lower end of Highland Creek and passes through a lot of back yards. The City of Toronto has been working on amending its ravines bylaw to promote naturalization. The City of Etobicoke has done some park naturalization projects too, with the involvement of community members. Last fall, Metro parks even won a landscape architecture prize for its naturalization projects.

These municipalities, to their credit, are not yet acting moribund, though their fate may be sealed by the amalgamation juggernaut by the time you receive this, or shortly thereafter. The TFN wrote to the Minister, Mr. Leach, asking some specific questions about the effects of amalgamation on parks management and other matters relevant to natural heritage and the environment. At the time of writing we have not received an answer, so I will assume that he has no good answers. Of course, he hasn't had much time to respond, but then the foreshortened time-line we are working with is not our doing.

As I indicated last month, there is little to prove that an amalgamated city would be inherently less capable of protecting natural and environmental values, except insofar as the chaos that will be occasioned by the amalgamation process itself will make it, at least in the short run, less capable of doing anything well. On the other hand, there is nothing to prove that an amalgamated city would be inherently more capable of doing anything better in either the short or the long term, which is perhaps why amalgamation was never recommended by any of those exhaustive, expensive studies of what to do about governance in the Toronto area. Maybe those recent international ranking exercises that rated Toronto as the best city in the world prompted this government to think it had to do something, quick, to fix the situation.

The provincial government is not amalgamating municipalities for the sake of amalgamating municipalities. Amalgamation is to pave the way for "downloading" the financing of services, which (for all its current hemming and hawing) appears to be the government's real agenda. In what is now Metropolitan Toronto, downloading will cause a sharp increase in property taxes and a sharp drop in services, precipitating a cycle of blight and flight. For a glimpse of the future the Tories have in store for Toronto, take a peek at Detroit. What you see there should be encouraging from a naturalist's perspective. Whole blocks in the inner city of Detroit have, I hear, been fenced off and abandoned. Trees and bushes are sprouting up

uncontested from cracks in the pavement; succession to climax forest is only a matter of time. Before long, I imagine, the rats will begin to be replaced by indigenous fauna. One would hesitate to visit these neighbourhoods save in an armoured personnel carrier, but urban danger is surely a small price to pay for increased wildlife habitat.

But seriously, folks--and in the scrupulous spirit of giving credit where credit is due--I heartily congratulate the provincial government for announcing last month that natural areas will no longer be assessed for taxation purposes as residential lands. Instead, forested lands will be assessed at the much lower agricultural rate; moreover, significant wetlands (such as TFN's nature reserves), Areas of Natural and Scientific Interest, and Niagara Escarpment lands will not be taxed at all. These changes really will help to protect wildlife habitat, by easing the unfair burden of taxation that was pressing rural land owners (including the now-defunded Conservation Authorities) to sell, develop or exploit their natural areas. This is a change that conservation groups like the Federation of Ontario Naturalists have been advocating since at least the early 1980s.

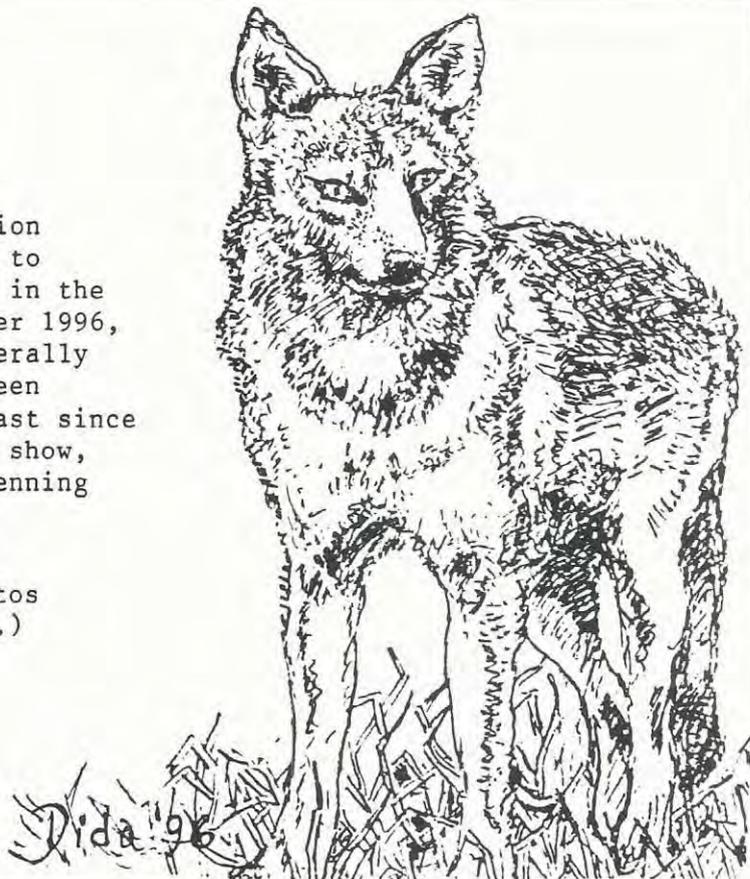
Allan Greenbaum

□

THE EASTERN COYOTE

is the result of coyote-wolf hybridization in the past, according to an article by Joy Cook in the BRUCE TRAIL NEWS, winter 1996, accounting for its generally larger size. It has been present in Metro at least since the 1970's TFN records show, including reports of denning observations.

(Illustration by Diana Banville, based on photos in our TFN Coyote file.)



FOR READING

WILD WINGS: The Hidden World of Birds by Michael Runtz, additional photographs by Jim Flynn. Erin, Ontario: The Boston Mills Press (1996). 128 pages, \$39.95.

This sixth book by Michael Runtz, the third in his *Wild* series, (along with *Wild Flowers* and *Wild Things*), is likely to prove very popular. In keeping with the other series titles, *Wild Wings* is coffee-table sized (10x10) and contains high-quality photography and writing geared to the avid nature enthusiast.

Wild Wings introduces the reader to many fundamental aspects of avian life in North America. Its eight chapters explore such key topics as feeding, flocking, migration, reproduction and predation. Occupying less than half the book, the text still manages to pack a lot of information into a small space. Each topic is expertly handled, which should come as no surprise given Runtz's qualifications as a popular author, photographer, university lecturer and former park naturalist. The accompanying photographs, many a full page in size, are simply outstanding. Not only do they superbly complement the text, they often leave one wondering just how certain shots were achieved.

The author's stated goal is to inspire readers to look beyond their bird checklists and start exploring the complexities of the avian world. To this end, *Wild Wings* succeeds by providing ample enticement to begin asking how and why, and not merely what.

Richard Aaron

SPINELESS WONDERS by Richard Conniff. New York: Henry Holt and Company (1996). 222 pages, \$35.00.

Spineless Wonders combines the author's twin loves of invertebrates and words. Conniff, a professional journalist, acquired his fascination with invertebrates as an adult. Since then, he has steered assignments from editors in the direction of his post-adolescent passion for more than twenty years.

The spineless wonders of the title are the "lowly" creatures without backbones which few stop to ponder or study. The author makes each essay so enthralling that it is difficult to put the book down mid-chapter. At the same time a host of "spined wonders" are examined with equal passion. Conniff laments that the individuals who make invertebrates their life's work are often ignored by natural history writers, for fear of alienating the average reader with stories about eccentrics. Eschewing this mindset, he sets out "deliberately to celebrate the strangeness and wonder of both the invertebrate world and its attendant humans."

With topics ranging from the rise, fall, and rise again of leech popularity (in medicine at least) to the annual Fire Ant Festival in Marshall, Texas, to housefly acrobatics, it is difficult to explain how such lively subjects could have been overlooked by so many naturalists for so long. With its abundance of wit and humour, *Spineless Wonders* should help remedy this situation by instilling in the reader a healthy respect, understanding and awe for these fascinating and biologically important life forms which comprise more than 99.5% of all existing animal species.

Richard Aaron

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THE 72nd TORONTO ORNITHOLOGICAL CLUB CHRISTMAS BIRD CENSUS

The weather the day of the count typified that in Toronto during December -- drab, mild and wet. The day was cloudy with light mixed rain and wet snow, steadiest in the early afternoon. The temperature, in downtown Toronto, ranged between 0°C to -3°C. Morning mist and light to moderate south to southwest winds ranging between 7-11 km/hr made for only fair lake viewing. The ground was bare (we had a "white" Christmas, but only just); still water was partly open and moving water was fully open.

The count day species total of 80 was the fourth highest ever; however, it was the lowest since 1993! Ten count-week species were recorded; this is the highest ever. Species not recorded on Count Day were Common Loon, Double-crested Cormorant, Black-legged Kittiwake, Boreal owl, Northern Sawwhet Owl, Pileated Woodpecker, Ruby-crowned Kinglet, Summer Tanager, Common Grackle and Rusty Blackbird.

The Northern Gannet seen off Ashbridges Bay Park at about 3 pm was the first ever on any Count Day or Week. This is the 160th species officially recorded since 1906 within the 7.5 mile radius circle. The bird, an immature, gave a thrilling display to Hendrik Hart and his party as it dove three or four times not far off-shore. This was presumably the same bird seen earlier that day off the Burlington Ship Canal. Incidentally, probably the same bird became # 338 and the last recorded on Glenn Coady's record smashing Ontario Big Year when he saw it later in the week off the Leslie St. Spit. There has been no previous count where so many individuals were recorded; the total of 58,249 is 42.7% higher than the previous high in 1994. New record highs were recorded for 12 species: Great Blue Heron, Black-crowned Night Heron, Mute Swan, Canada Goose, American Wigeon, Redhead, Common Goldeneye, Bufflehead, Hooded Merganser, Great Black-backed Gull, European Starling and House Sparrow. Record-tying highs were recorded for three species: Green-winged Teal (5), Ruddy Duck (2), and Merlin (2). The Brown Creeper total (30) was the highest since 1967; Winter Wrens (11) were not this abundant since 1971. Surely the reward for thoroughness on this count must go to Ray Geras, who recorded 20,500 starlings at one roost under the Gardiner Expressway! Even these numbers were a gross underestimate according to Ray. The starling and waterfowl totals were the main contributors to the record numbers. Benign weather conditions this December resulting in much open water were largely responsible for the high waterfowl numbers.

In contrast, passerine numbers were relatively low. Both White-breasted (52) and Red-breasted Nuthatches (17) were low in number; the White-breasted Nuthatch seemed to be at the low point in their hypothetical bi-annual abundance cycle. House Finch (306) and Goldfinch (169) numbers were the lowest since 1987 and 1985, respectively. As in 1994 the mild weather on the day of the count combined with readily available and good supplies of natural fruits and seeds dispersed the passerines and kept them away from feeders. The lack of a "winter finch" irruption due to a heavy cone/seed crop at their breeding grounds has been already documented.

There were a number of other significant sightings. A female King Eider, the third ever for the count, was spotted by Alfred Adamo and David Beadle as it swam loosely associated with mallards, just off-shore of Centre Island in the Harbour. The Red-necked Grebe seen by J. Carley's party at

CHRISTMAS BIRD COUNT (cont'd)

the Spit was the first since 1972 on count day. The immature Black-legged Kittiwake seen off the south-east corner of the Spit by Norm Murr and company on Count Week was the first since 1934, when an adult was recorded at Sunnyside.

The three Short-eared Owls noted at dusk by Dan Bone at Downsview Airport was the highest number since 1951. The Boreal Owl, first found by Craig McLaughlan and seen by him the day before the count, was not seen on the count day. A Boreal Owl had never been recorded before within the 7.5 mile radius circle either on count week or day. On January 4th the Boreal Owl was finally rediscovered at a different location.

The High Park route, recorded two warbler species; a Yellow-rumped Warbler which was the first since 1982, and a Common Yellowthroat (a hatch year male), the first since 1987. As many as three Yellow-rumped Warblers have been seen in High Park during the month of December. A Chipping Sparrow found in Karl Konze's route was the first in five years.

Imagine the serendipitous appearance of a female Summer Tanager at your feeder on Christmas Day, after you had just arrived from overseas! This is exactly what occurred to a birder in the Yorkville area; he had the presence of mind to disturb(?) Hugh Currie on Christmas Day to notify him and to put fruit out on the feeder to "hold" the bird. This was the first tanager ever recorded within count week on the Toronto Christmas Census.

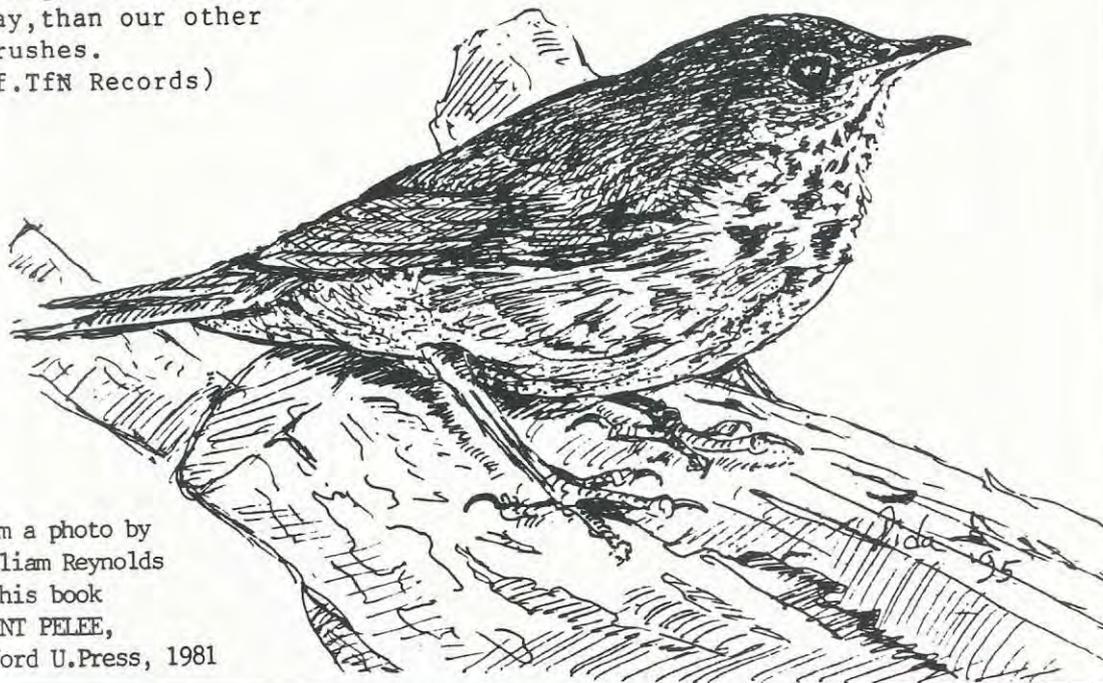
Dec. 22, 1996

Alfred Adamo, compiler

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THE GREY-CHEEKED THRUSH migrates through Toronto, arriving later in spring, with a shorter stay, than our other thrushes.
(ref. TfN Records)

from a photo by
William Reynolds
in his book
POINT PELEE,
Oxford U. Press, 1981



Lake Ontario Mid-Winter Waterfowl Inventory

January 12, 1997

Compiled by: Bill Edmunds

TFN 466 - 10

Species	TORONTO AREA*															TOTAL
	Kingston	Quinte	Presq'ns	Port Hope	Durham	Route 1	Route 2	Route 3	Route 4	Route 5	Route 6	Route 7	Subtotal	Hamilton	Niagara	
Common Loon	1															1
Horned Grebe	4													2		6
Red-necked Grebe	1															1
Double-crested Cormorant															1	1
Tundra Swan	23															23
Trumpeter Swan	2					2							2	2		6
Mute Swan				4		9	4	52	26	7	64	2	164	28		196
Gr. White-fronted Goose														1		1
Snow Goose				1		1						2	3	2	1	7
Canada Goose	3800			635	1105	12295	858	243	1	554	2100	1851	17902	3276	433	27150
Wood Duck								1			1		2			2
Green-winged Teal						3		3					6	1		7
American Black Duck	511			113	150	284	47	20	8	14	67	37	477	212	7	1470
Mallard	2667	7	2	843	609	2687	368	483	360	599	1212	901	6610	2197	424	13359
Northern Pintail	4			2		1		1					2	18		24
Northern Shoveler										20	2		22	14		36
Gadwall	65					4	3	230	2	14	95		348	27	6	448
American Wigeon	13							2			22		24	1		38
Canvasback	3					6		2					8	87	2	100
Redhead	85		2	2	150				501	4	30		535	1	1	776
Ring-necked Duck	5					1		1			2		4	16		25
Greater Scaup	140			11	166	10	281	332	755	10	2872	188	4448	8845		13810
Lesser Scaup	5			2		1	1	1	4		5		12	1728		1745
Scaup sp.								217					217		274	491
King Elder	4							1					1			5
Harlequin Duck								2					2			2
Oldsquaw	37785	108	273	3	8306	200	608	1260	645	125	852	2	3692	416	10	50592
Black Scoter	10													1	1	12
Surf Scoter	15													11		26
White-winged Scoter	7570	6				22		10	154	300	2	1	489	1233	1	9299
Common Goldeneye	4026	251	239	185	676	115	49	428	240	15	485	705	2037	8298	339	16049
Barrow's Goldeneye	2													1		3
Bufflehead	645	41		33	93	148	44	119	151	63	242	369	1136	976	113	3037
Hooded Merganser	2					4			3	2	2		11	2	1	16
Common Merganser	4385	3	1	11	31	148	19	11	33	21	191	21	444	169	1259	6303
Red-breasted Merganser	36			2	32	1	14	24	189	9	13	15	265	115	117	567
Ruddy Duck	1										2		2	32		35
American Coot	13							1			3		4	78		95
Scoter sp.							10					1000	1010			1010
Duck sp.				24		500	75						575			599
Mallard X Black Duck				2		2	1		6	2			11			13
Total Birds	61823	418	517	1843	11348	16444	2382	3444	3078	1760	8263	5094	40465	27782	2990	147184
Total Species	29	6	5	12	12	20	12	22	15	16	20	12	28	30	17	37
Bald Eagle	11												0	2		13

* Route 1: Whitby to Rouge River; Route 2: Rouge River to Coatsworth Cut; Route 3: Eastern Headland to Cherry St.; Route 4: Toronto Islands; Route 5: Parliament St. to Humber River; Route 6: Humber River to Watersedge Park; Route 7: Watersedge Park to Bronte

LAKE ONTARIO MID-WINTER WATERFOWL INVENTORY

Conditions: On the day of the inventory, Jan. 12, 1997, the temperature ranged from -15°C to -5°C , and the wind was very strong (up to 60 km/h), from W to NW. This wind caused large waves, so that observing birds on some sections of the lake was very difficult. Most bays were frozen over, while the lake itself was generally ice-free.

The sky was overcast early and late during the day, but clear and sunny for a few hours around mid-day.

Remarks: This is the 51st "Duck Count" for the Toronto Ornithological Club (the first one occurred exactly fifty years ago on Jan. 12, 1947) and the seventh year that we are reporting census results for the entire Canadian shoreline of Lake Ontario.

Participating in this 51st Duck Count were several longtime TOC members, including Murray Speirs and Bruce Falls who participated in the very first count in 1947, Fred Bodsworth who first participated in the second count and has done about 40 Duck Counts since then, Don Perks who has participated in 30 Duck Counts, and Clive Goodwin who coordinated the Count from 1968 to 1988.

Low numbers were observed for only a few species (e.g. loons, grebes); generally numbers reported were average to above-average (compared with the results from 1991-1996).

For the entire census area (Kingston to Niagara-on-the-Lake), 147,184 waterfowl were found from 37 species. This high number of waterfowl is second only to last year's 162,775 total.

Kingston had most of the Oldsquaw, White-winged Scoter and Common Merganser. Greater Scaup numbers were highest in Mississauga through Hamilton. Common Goldeneye were everywhere, with large numbers at Hamilton. As usual, Canada Goose (27,150) and Mallard (13,359) were well represented, particularly in the Pickering-to-Whitby area.

In the Toronto area (Whitby Harbour to Bronte Creek), 40,465 waterfowl from 28 species were reported. These values are second only to last year's 56,316 total from 30 species. The number of waterfowl reported since 1990, has increased dramatically. The average "total waterfowl seen" from 1950-1989 was 17,447. During the past seven years this average has risen to 36,379! Canada Goose, Greater Scaup, Oldsquaw, White-winged Scoter and Common Goldeneye are the main contributors to this increase.

Record high numbers were seen for Mute Swan, Canada Goose, Redhead, Bufflehead, and Hooded Merganser.

Rarities included 3 Snow Goose, 2 Wood Duck, 6 Green-winged Teal, 2 Northern Pintail, 8 Canvasback, 4 Ring-necked Duck, the first King Eider since 1971, 2 Harlequin Duck, 11 Hooded Merganser, 2 Ruddy Duck, and 4 American Coot.

Thanks to all the clubs and individuals who participated. Next year's count will take place on Jan. 11, 1998.

Bill Edmunds, compiler

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THE LOWLY LICHEN

"Over mature" forests with their high percentage of old and decaying trees are noticeably far richer feeding areas for birds than "managed" areas. Dead and dying wood provides food for countless invertebrates and ideal sites for their eggs. Both are food for birds.

These old forests also enable lichens to flourish, which increase the density of insects. Lice feed on lichens; spiders hide in them, others use them as shelters. But Swedish scientists discovered there is another reason lichens attract birds. A number of small species find lichens are ideal storage containers.

extracted from THE ECONOMIST by Mary Anne Miller, 1996



THE JACK-IN-THE-PULPIT, a well-known native Toronto plant, blooms as early as April 19 and as late as June 10, according to TFN records. It has been reported in all watersheds, except Mimico Creek which has meadow and groomed areas along its banks but not much shade.

Isabel Smith

OUR UNLOVED MAPLE

Nursery catalogues ignore it, garden writers abhor it. The birds and small mammals love it. And European horticulturists are so keen on it that they have bred at least 75 cultivars for landscaping. "What is it?" you ask.

Surprisingly, the tree in question is our native Manitoba maple. Sometimes it's called the ash-leaved maple or box elder, scientific name *Acer negundo*. It is native throughout most of central and eastern, temperate North America, as well as the mountains of Mexico and Guatemala. As well as being widely planted throughout Europe as an ornamental it has become naturalized in eastern China and much of Central and South America.

In its native habitat the Manitoba maple prefers moist areas such as river banks, valley bottoms and stream gullies and naturally seeds itself around barns, woodsheds and farm houses. It loves cities — growing and spreading in neglected back yards and lane-ways, no doubt with a lot of seed dispersal help from the birds and squirrels.

Some of the definitive books on American landscaping describe Manitoba maple as 'coarse', 'noxious', 'weedy', 'aggressive'. Granted, it is all these things, but a whole lot more. It is this 'more' that gardeners and naturalists should pick up on and shout the praises of for our unique maple.

The first and probably the best reason to plant a Manitoba maple in your garden is for its appearance around middle age and beyond. After 25 years or so, the trunk takes on a gnarled, bumpy look, often with burls of immense character. What other native tree appears to look ancient after 25 years? By planting ferns, wildflowers and shrubs such as witch hazel and leatherwood around it you can create the look of an old growth forest in a relatively short time.

Second, Manitoba maple is the only one of North America's 13 species of native maples with *compound* leaves, very unlike the typical single, palmate maple leaf which appears on the Canadian flag. Each leaf is composed of a central stalk and three to nine leaflets. The leaf is similar in appearance to those of ashes, sumacs, walnuts and the alien tree of heaven with whom it frequently shares urban spaces.

Third, Manitoba maple is our only maple whose flowers are consistently *dioecious*, that is, the female seed-producing flowers and the male pollen-producing flowers are always on separate trees. The male flowers are especially delightful when they appear in early spring and hang downward in yellowish-green, filamentous bundles, often catching and emphasizing the spring sunlight.

Fourth, if the female flowers do not intercept the wind-borne pollen from a male tree, they often continue to develop even without fertilization, and produce seedless fruits. This phenomenon is called *parthenocarpy*. Often female trees can be seen in the

MAPLE (cont'd)

winter covered with fruits. Each fruit is called a *samara*, consisting of a wing and a swollen seed. If the fruits contain no seeds, this will be a loss to seed-eating birds and mammals, but a plus to gardeners who may despair at hand weeding the hundreds of unwanted seedlings next spring.

The Manitoba maple is a fast growing tree, reaching a height of 20 metres. At maturity it has a wide open crown and a rather amorphous silhouette. It is often planted in the prairies as a wind break, being one of the few native species that will tolerate drought, flood, severe wind and temperature extremes. The trunks and branches often twist and bend with the elements. For instance, at times, near a river bend, the whole length of a main trunk or a huge branch will develop horizontally and rest on the ground, continuing to grow and flourish as if nothing could be more natural.

Although the wood is weak compared to other trees, the grain is sometimes streaked with a reddish hue much to the appreciation of wood carvers. Saplings and young trees exhibit an attractive greenish to bluish grey bark which is shiny and smooth, being particularly attractive before the leaves emerge.

Ecologically, the tree earns its keep, especially in urban centres where it often grows in company with the dioecious alien, tree of heaven. Both trees favour neglected, disturbed areas and help immensely to minimize the ugliness of urban decay. As well, these omnipresent creatures facilitate our own survival by producing oxygen as a by-product of photosynthesis, reducing temperature extremes with their shade producing canopy, maintaining moisture levels in the ground and creating new soil through the process of twig and leaf decay.

Wildlife use the tree for food, especially the winter seed crop, and it provides nesting and refuge sites for the many birds and squirrels. In winter some trees are so thickly laden with the hanging samara fruit bunches, they appear to be covered with brown foliage.

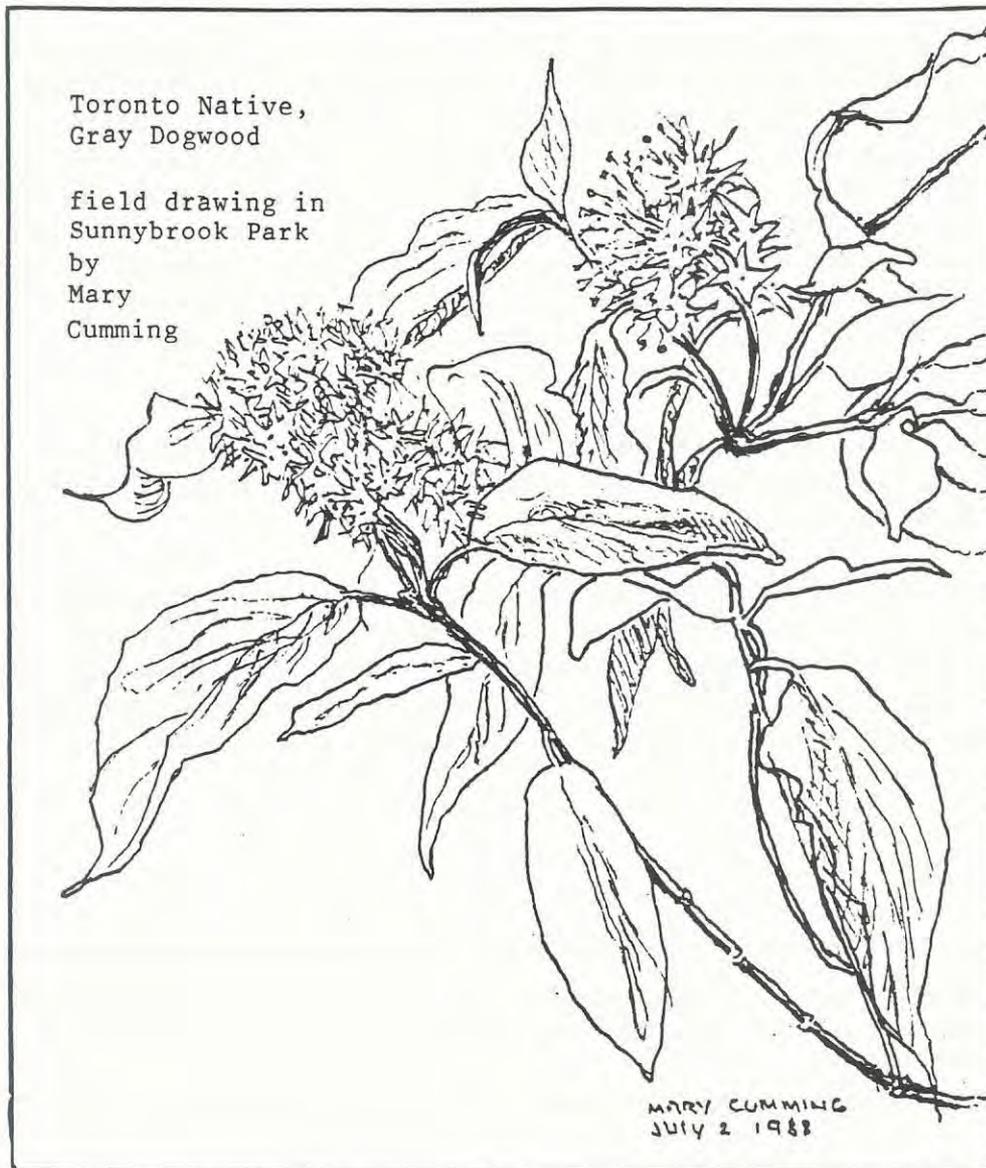
Since *Acer negundo* is the only native tree to have widely naturalized itself in the cities of central and eastern North America, we may as well use its resilience to our advantage. Memorize its four unique qualities and promote its presence. Dare to be unique — like *Acer negundo*.

The science classroom, especially in grade schools, can readily focus on this species to illustrate the phenomena of dioecy, adaptation, parthenocarpy, species dispersal, plant succession, seed stratification, ecological niches and so on. Teachers could encourage their students to collect the seeds in early fall through to February. Remove the nutlet from the samara and store the seeds in a zip-lock clear plastic bag containing a handful of slightly damp sphagnum or peat moss. Store the bag and contents at room temperature for one or two months. Then place the bag in a refrigerator at 6°C for one to two months. This treatment, called *stratification*, prepares the seeds for germination.

Plant the seeds, one to two per container (recycled coffee cups are good), about 1 cm deep, in any neutral soil. Punch small holes in the bottom of each cup and keep the soil damp, but definitely not wet. Place the cups near a window or under lights. Seedlings should germinate in approximately two weeks. When they have reached 10 cm in height, plant them out in whatever location you judge to be appropriate. Remember, the tree prefers full sun, reaches 20 m in height and lives up to 100 years. Now that you know some of the facts about our unique maple, perhaps you've found a new friend for life.

James Hodgins

Note: Readers are invited to share their views on Manitoba maple in future issues of the TFN Newsletter.
[See page 2.] □



TAKEOVER BID

The Rouge Valley is host to three voracious species:

- native poison ivy, which grows as ground-cover, vine or small bush, and moves with lightning expedition into any area disturbed by human activity (I have even found it in the Temagami wilderness);
- the alien but thoroughly established swallowwort (some 40 years along) which has cast a blanket over the Valley (its exploratory tentacles have even reached as far as the Baillie Reserve);
- that astonishingly recent upstart and foreigner, purple loosestrife, which requires no more than a bit of sand and a trickle of water. (A trip north will show the extent of its spread along the highways. It crosses the province from Bancroft to Minden to Kinmount. I have found it northwest at Sauble Beach and centrally at Washago.)

But in the Rouge, which of these will eventually dominate? From the point of view of aesthetics, loosestrife is the unarguable winner. Poison ivy's small greenish flowers hardly strike the eye, its berries are sickly white, and its main claim to beauty — notorious reputation apart — is in the bronze coloration of its spring leaves and its red fall leaves. Swallowwort is even harder put to it to compete. The danger implied in its common name of Dog-Strangling Vine applies equally to its capacity to lasso a human ankle, while its tiny five-starred blooms have as their sole claim to fame the fact that they are chocolate-brown, a colour which is a rarity in the floral world. True, they are powerfully scented, but swallowwort's seed pods have little of milkweed's silver flashiness (it is a member of that family), being small and drab.

Loosestrife, of course, has the added advantage that, through ignorance or intent, people cultivate great purple clumps of it in their gardens (which no-one would dream of doing with the other two).

That anything else survives besides these three remains a triumph of determination on the part of other species. Meanwhile, each of these empire builders is at present avoiding the territory of the others. Will the outcome be that, like multinational corporations, they will continue to follow a non-collision course, or will one of them finally decide to take control? A Battle of the Giants could be not far off.

Eva Davis

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...the most important problem facing the world in the coming decade is the loss of genetic and species diversity by the destruction of natural habitats.

extract from NATURALIST by Edward O. Wilson, Island Press/Shearwater Books, 1994

REMARKABLE FOX BEHAVIOUR

On Sunday evening, July 28, 1996 at 7:50 pm in Section 38 of Toronto's Mount Pleasant cemetery I witnessed a sight that I will never forget. I came upon a Red Fox (*Vulpes vulpes*) dancing around two burning candles. By dancing I mean that it was prancing around the candles and rearing up on its hind feet facing the flame. After a few seconds it reached out with a front paw and knocked one of the candles over. It then bent down and snuffed the candle out, whether with its mouth or paw I could not tell. It picked up the candle and carried it across the road into the small patch of woods which is used to scatter the ashes of those who are cremated. In a minute or so it returned and went through the same routine with the other candle. I watched this from a distance of 25 metres with 10 power binoculars. I had to leave because a cemetery official drove by and told me the gates were about to be closed. Before leaving I noted that the candles had been placed on a small, flat-lying grave stone and a small amount of spilled wax remained on the stone. A short distance away there were four more lighted candles on graves.

I returned to the cemetery early the next morning and found that the four other candles were gone. I searched the wooded area and found one of the candles. It was red, about 2.5 centimetres in diameter and 15 centimetres long (about half used up). There were tooth marks in the wax but it had not been chewed or partly eaten. There is no doubt that food for foxes is now very limited in the cemetery and wax candles may provide a meal for a very hungry fox. Peterson (1966) describes a wide variety of foods eaten by foxes — but he did not list candles!

The main food item for foxes in the cemetery has been the Eastern Gray Squirrel (*Sciurus carolinensis*). On May 4, 1996 I watched a fox bring a squirrel to its den 500 metres from the spot where the "candle-stealing" took place. On May 7 I witnessed the four half-grown pups fighting over a dead squirrel near the mouth of the den. Two friends have told me they saw foxes carrying squirrels to the den during the spring.

The once abundant squirrel population has now almost disappeared from the cemetery. A survey of the squirrels on September 19 produced only seven squirrels, all but one very close to the cemetery wall. I presume that the squirrels stayed near the wall as an easy escape from foxes. The surrounding residential area has a heavy squirrel population and no doubt they come over the wall to feed on the mast from the many nut trees in the cemetery. Perhaps the wax candles provide a substitute now that squirrels are scarce.

I expect that the fox's little dance around the candle was the result of the conflict between its hunger and his fear of the flame. The reason that it carried the candles away rather than eating them on the spot may have been that I was standing so close.

George M. Fairfield

Reference: Peterson, Randolph L. 1966. *The Mammals of Eastern Canada*, p. 211. Oxford University Press, Toronto.

□

TURTLE TROUBLE

... Hatchling Red-eared Sliders were once the most popular turtle in the pet trade with an estimated 5-10 million exported from the US annually. In response to declining populations turtle farms were set up in the southern US and by 1960 there were over 150 such farms. Mortality at such farms was quite high, forcing the capturing of over 9000 adults each year to augment the breeding stock.

For a time their export was curtailed because Red-eared Sliders can transmit salmonella. Agriculture Canada has prohibited their import into Canada for commercial purposes for a number of years. A loophole in the law allows the importing of eggs and so sliders are still found for sale in some places. According to Agriculture Canada, they plan on eliminating this loophole in legislation that is pending. Because the import ban on sliders did not solve the problem, many municipalities have by-laws prohibiting their sale. However, this is clearly a global problem: currently 3-4 million Red-eared Sliders are exported annually from the US around the world -- from Europe to Japan.

The whole issue of displaced wildlife raises many difficult questions. What should be done with unwanted turtles? Can they be returned to the wild? Should they be euthenized? Should the sale of all "wild" animals be banned? And just how do we define wild?

Probably most sliders are hatched in captivity, although the eggs, or their mothers, may have come from the wild. Does this make the hatchling a wild animal? Ultimately the question is probably pure semantics. The more interesting problem is what to do with unwanted adults. Returning them to the wild is costly even if it were a good idea. And since returning an individual to its natal population would be next to impossible where should a turtle be released? Randomly releasing individuals into wild populations can result in unnatural mixing of gene pools.

The answer it seems is clear. Unwanted adults must live out their lives in captivity. And a 10 cm long turtle (which can grow to 20 cm or more!) needs abundant room, water to submerge in and dry land to bask on.

extracted from an article by David Seburn in TRAIL AND LANDSCAPE, Vol. 30, No. 4, Oct.-Dec. 1996 [Ottawa]

Comment: Bill Malone, a TFN member, has kept a red-eared slider for 31 years, after his daughter brought it home from school! On two visits to West Pond last summer I saw only red-eared sliders (five on the first visit on July 4, and one on July 7). And Bob Johnson reports that red-eared sliders and chicken, or yellow belly, turtles have taken over the north end of Grenadier Pond. The native painted turtles seem to have disappeared from both sites.

H.J. □

It's all too easy, when worrying about the rare and endangered, to overlook the gradual disappearance of the familiar.

from the "Editorial" by R.K. Cox in BBC WILDLIFE, Vol. 14, No. 7, July 1996

PROJECTS

THE DOUG TARRY BIRD STUDY AWARDS FOR YOUNG ORNITHOLOGISTS

The Doug Tarry Bird Study Awards foster the development of ornithological interests in Canadian teenagers. Recipients of the awards attend a week-long workshop/natural history camp at Long Point Bird Observatory (LPBO), located on the north shore of Lake Erie, Ontario.

The Doug Tarry Young Ornithologists' Workshop is a major component of the Observatory's educational program. Since its inception in the mid 1970s, the Workshop has been the jumping-off point for many of today's most talented field biologists. Thanks to the keen foresight and generosity of humanitarian and naturalist Doug Tarry, the Workshop is offered free to selected applicants. This year, the Workshop is being held from **Friday 1 August to Friday 8 August 1997**.

The Workshop focuses on "hands-on" learning and training in field ornithology, providing a unique opportunity for like-minded teenagers to markedly enhance their knowledge and skills in the scientific study and aesthetic enjoyment of birds. Participants learn how to identify, age and sex birds, and to study their populations and behaviour. Careful and skilled instructors teach the secrets of bird handling and banding techniques, how to prepare specimens for scientific study, and an array of bird censusing techniques. Regular afternoon field trips are taken to places of biological interest within the internationally designated Long Point Biosphere Reserve. Evenings too are busy with slide presentations and nocturnal field work.

Space is limited to 6 participants, ranging in age from 13-18 years old. The Award covers all direct costs of the workshop (accommodation, meals, travel while at Long Point, and professional instruction), but recipients are responsible for their transportation to Long Point. Prospective participants are invited to request an application form from: Rosie Kirton, Long Point Bird Observatory, Box 160, Port Rowan, Ontario N0E 1M0 (fax 519-586-3532).

Applications are due 1 May 1997.

a Long Point Bird Observatory press release, Jan. 19, 1997



FRAGRANT WATERLILY, Toronto native

Eva Davis

PROJECTS (cont'd)

PARTNERS IN ENVIRONMENTAL MANAGEMENT

Since 1993, Canadian golf courses, parks, school yards, and grounds of corporate offices have participated in an environmental management program called the Audubon Cooperative Sanctuary System. The goals of the program are to enhance wildlife habitats on existing and future green spaces by providing advice for ecologically sound management and to encourage active participation in conservation programs.

In 1996 the Audubon Society, the Lake Simcoe Region Conservation Authority and Metro Region Conservation Authority jointly sponsored a workshop on Environmental Management. It was attended by more than 90 people, golf course superintendents and owners; members of the Conservation Authorities; personnel from the Ministry of the Environment and Energy; turf management businesses; Metro Zoo; the Canadian Wildflower Society and the American Audubon Society. The workshop explained the Audubon Cooperative Sanctuary Program and gave examples of projects carried out by golf courses actively participating in the program.

Representatives from the two conservation authorities explained about existing programs that they can provide that would complement the Audubon program.

A need for additional workshops on naturalization, water quality and integrated pest control was identified.

▷ If your park, golf course, school, cemetery or business is interested in joining the Audubon Cooperative Sanctuary System, contact Barbara Allen-Shaw at 14872 Yonge St., Aurora, Ont. L4G 1M7.

THE URBAN NATURALIST

For a complete list of outdoor and indoor programs and fees charged, please note a change of address: 2107 Danforth Ave., Toronto M4C 1K1. If you have any questions call Morris Sorensen at 755-6030.

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ABOUT HERITAGE

A simple way to define heritage is to say that it's anything we care about -- culture, knowledge, values, attitudes, traditional lore and custom, the buildings that surround us, the natural environment -- that we have received from a previous generation and that we in turn hand down to those who come after us. Heritage can consist of elements as full of personal history as an old family photograph, as fanciful as a ghost story, as solid as a family home, as tantalizing as a recipe, or as intangible as language. Each plays a valuable role in defining who we are.

Heritage Canada

PROJECTS (cont'd)

SPIT KIT A HIT!

An ideal, inexpensive, and unusual gift for birthdays, graduations, anniversaries is a "Spit Kit". It includes

- 1 year membership in Friends of the Spit
- bird checklist
- "Plant Communities of the Leslie Street Spit" (a plant book)
- "Come, explore" (map and introduction)
- Spit poster

Send \$17 (individual membership) or \$20 (household - 2 persons or more at the same address) to Friends of the Spit, P.O. Box 51518, 2060 Queen St. East, Toronto, Ont. M4E 3V7.

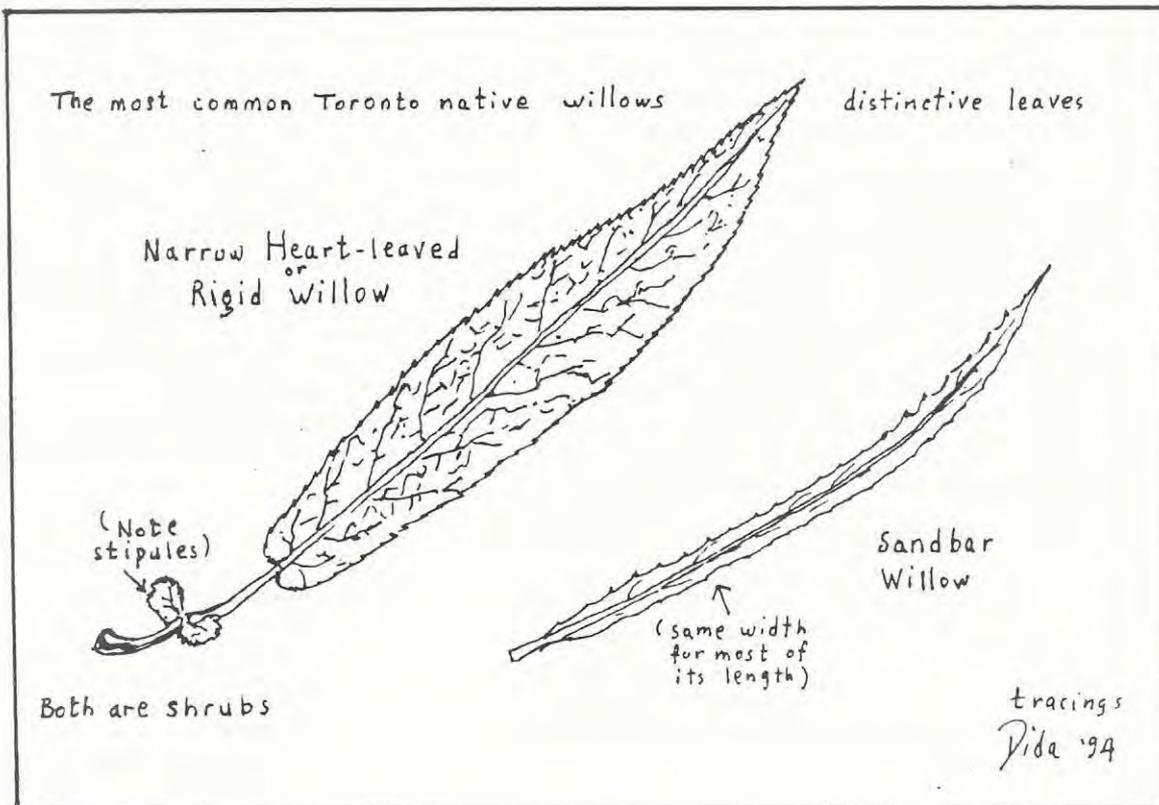
THE FATAL LIGHT AWARENESS PROGRAM (FLAP)

Become a member of FLAP to help save migratory birds. Members receive two issues a year of "Touching Down" (newsletter) plus periodic bulletins.

Regular fee: \$10; student or senior: \$5. Send your application to FLAP, 1 Guelph Road, Erin, Ont. NOB 1T1 or call 905-831-FLAP.

MTRCA WANTS VOLUNTEERS

The Metropolitan Toronto and Region Conservation Authority (MTRCA) has a number of projects requiring the assistance of volunteers. They include monitoring frogs in the spring, photographing demonstration projects, helping to plant new wetlands, etc. For further information on the program call Marta Soucek at 661-6600, ext. 283. □



IN THE NEWS

BIRDS THAT NEST IN THE GRASSLANDS FIND THEIR HABITATS UNDER SIEGE

The upland sandpiper is vanishing from the Northeast as a result of changes in farming practices, the return of abandoned agricultural land to forest, and residential and industrial development. In New York, for example, the number of upland sandpipers declined an estimated 84 percent from 1966 to 1995. The eastern meadowlark is no longer a familiar sight in rural Connecticut, where its population plummeted by 97 percent in the 30-year period covered by a survey. The count of grasshopper sparrows dropped by 97 percent in New York. The field sparrow has declined by 92 percent in Vermont. Of the entire suite of grassland-nesting birds in the Northeast, only the bobolink and savanna sparrow appear to be holding their own. Among other species considered to be in jeopardy are the northern harrier, barn owl, short-eared owl, horned lark, sedge wren and Henslow's sparrow. Until recently the disappearance of open habitat and its birdlife in the Northeast aroused relatively little concern. There is a perception that these open areas are an ephemeral artifact of European settlement and that grassland birds invaded the Eastern states from the Western prairies after the forest was cleared, so it doesn't make any difference if the upland sandpiper or grasshopper sparrow disappears from New England. But there is convincing evidence that grasslands were a conspicuous part of the Eastern landscape long before colonial times. Research by Dr. Peter Vickery published in the journal CONSERVATION BIOLOGY has also shown that open areas need to be at least 500 acres to support a full array of grassland birds, including upland sandpipers, grasshopper sparrows and birds of prey like the harrier. He warned that heavy use of pesticides will have adverse effects for grassland bird populations. Grassland bird experts say that modern hayfields can be death traps because farmers often mow new alfalfa varieties before nesting adults can raise their broods, and that there is not enough time between second and third cuttings for the birds to renest successfully. A strong case that grassland birds are an ancient component of biodiversity on the heavily forested East Coast is made in a paper to be published in 1997. It states that historical accounts and analysis of pollen deposits show that open grasslands existed on the East Coast at the time of European settlement. Extensive grasslands resulted from burning and agricultural clearing by Indians. Natural disturbances, such as wildfire and beaver activity, produced grasslands even before Indians cleared the forest. Also, upland sandpipers, grasshopper sparrows, bobolinks, eastern meadowlarks and other common grassland birds were reported by the earliest ornithologists who documented the distribution of birds on the East Coast.

extracted from an article by Les Line in the NEW YORK TIMES, Dec. 31, 1996

Early in the year
noisy sparrow nuptials,
briefly kind weather!

Haiku by Arthur Wade

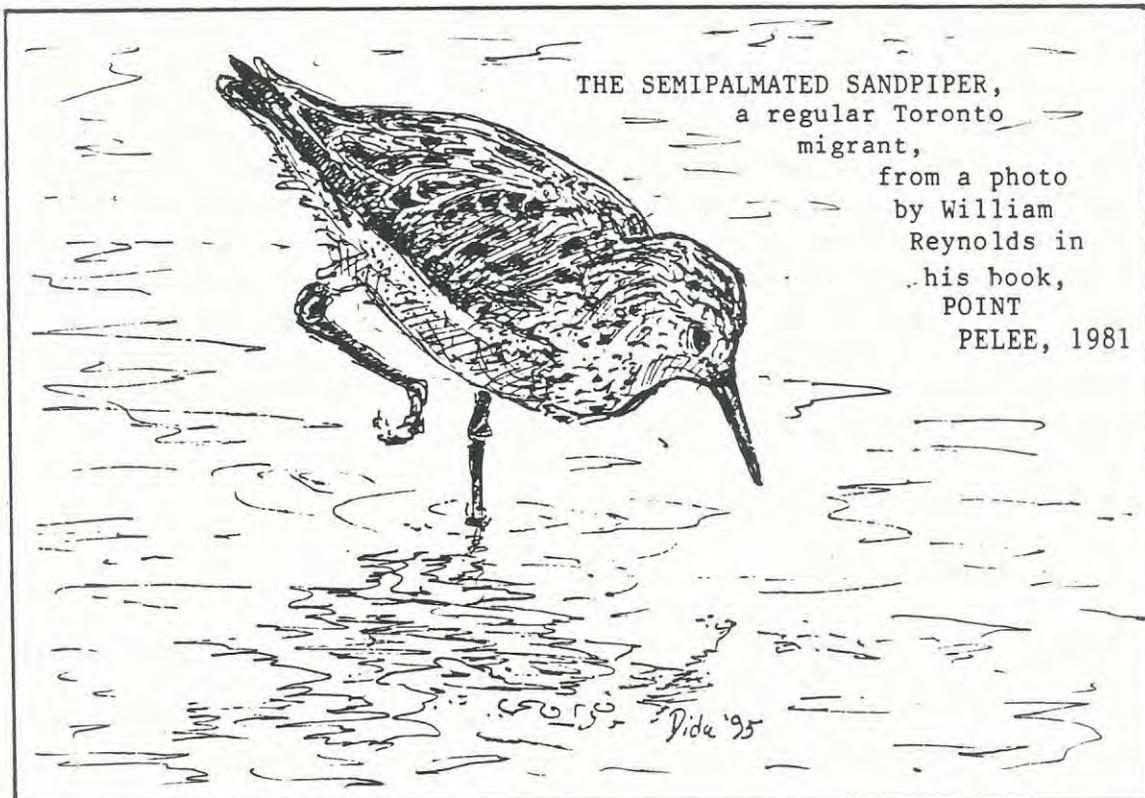
IN THE NEWS (cont'd)

NO GOLF COURSE FOR LESLIE STREET SPIT

City Council has approved an Executive Committee motion which in effect kills plans for a Golf Academy to be constructed and operated in the baselands area of the Leslie Street Spit. The motion, which had been sent back to committee by council on the strength of opposition against the combination driving range and mini-putt, rejected the proposed tax exemption for the project. It also requested that TEDCO (Toronto Economic Development Corporation) cease its negotiations with the developer. The baselands were rezoned from I-2 (light industrial) to GR (conservation land), and Metro Toronto Regional Conservation Authority (MTRCA) was asked to become involved in the 7.2 hectare (18 acre) site. The site in question was already designated as an environmentally significant area, with many species of birds and important wildlife living in and around it. The plan called for netting as high as 21 metres (70 feet) around two sides. This would have had a serious effect on the flying patterns of the birds in the area. [The project] was almost a done deal. Apparently the proposal was brought before the Executive Committee without much announcement and it was almost passed. The Friends of the Spit was able to galvanize opposition and reach councillors before the vote. With the rezoning, it is hoped that the Leslie Spit baselands -- the area around Vauxhall Avenue -- will be free from any future development plans and kept part of the "spit experience".

Extracted from an article in the BEACH METRO NEWS, Jan. 14, 1997

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RABIES DRIVE TARGETS RACCOONS AND SKUNKS

The Ministry of Natural Resources is busy with two major rabies prevention programs covering the Greater Toronto Area. In Scarborough, officials have been live-trapping and vaccinating skunks and raccoons. A fox vaccine bait program will begin in areas stretching from Hamilton to Oshawa. Small metal cage traps are being placed in Scarborough parks (and on private property with permission). They should not be tampered with or moved. The traps are checked every morning and if they've caught a skunk or a raccoon it will be tagged for identification, vaccinated against rabies by injection, then released. In no way are the animals injured by the traps. The fox vaccine bait program will see ministry staff and volunteers place 40,000 chicken/cod baits containing rabies vaccine in ravines and near fox dens. Since the fox vaccine baiting program started in 1989, there have been only three cases of rabies in foxes in the GTA. Metro has been free of rabid foxes for two years. The goal of the ministry's rabies vaccine programs is to immunize between 60 and 70 per cent of the target animal population. Ministry research shows that if a high percentage of animals are immunized, a rabies outbreak does not take hold in the animal population.

extracted from an article by Paul Insh in THE TORONTO STAR. 4 July 1996

YORK MILLS RESIDENTS GET NASTY SURPRISE AFTER RATS INFEST AREA

A mysterious rat infestation in the Ames Circle area of Bayview has caused some residents to rat-proof their neighbourhood. The vermin were first spotted in early June by Bayview and York Mills residents who quickly brought in professionals to try to remove the furry interlopers. When it became obvious that there was a neighbourhood-wide problem, the Department of Public Health was brought in to help deal with the situation. While area residents and the Department of Public Health agree that the problem is now under control, the cause of the infestation remains a mystery. For rat-proofing homes: Make sure there are no holes in the foundation of your home, garage or shed. Keep garbage in metal cans with lids. Don't leave food outside for cats and dogs or birds. Bird feeders attract rats because seeds are always lying on the ground around the feeder. Wood should be stored off the ground, as rats will build nests in the piles. Maintain your property and keep gardens and shrubs neat.

extracted from an article in BAYVIEW POST, September 1996

We have pursued the mastery of nature as if we ourselves were not a portion of that nature. We have boasted of our command over our physical environment while we ourselves have done our urgent best to destroy it.

from THE SOCIAL CONTRACT by Robert Ardrey, published by McClelland & Stewart, 1970.

IN THE NEWS (cont'd)

SIGNS OF DECLINE

- The dandelion has been declared an endangered wildflower in England.
- Already, one out of every five fish destined for tables worldwide comes from farms.
- Half the domestic bee population in the United States has been lost since the Second World War.

extracted from "Social Studies" by M. Kesterton in the GLOBE & MAIL, Jan. 7, 1997

BIRD SPINS UNDERWATER TORNADO TO CAPTURE PREY

Phalaropes which resemble sandpipers are about the size of a large sparrow and are found throughout the world. Phalaropes can't dive underwater to eat one of their favourite foods, the larvae of brine flies. So they create the tornado to bring the larvae to the surface. A phalarope paddles in a tight circle with its head in the middle, making a complete revolution once a second. It can peck at larvae and swallow them up to three times a second. As phalaropes paddle, their feet kick water away from the centre of the circle. That creates a depression, and water from below rushes up to fill it, bringing the doomed larvae with it. The strategy can bring up larvae from as much as 45 centimetres below the surface.

extracted from an article in the LONDON FREE PRESS, Nov. 16, 1996

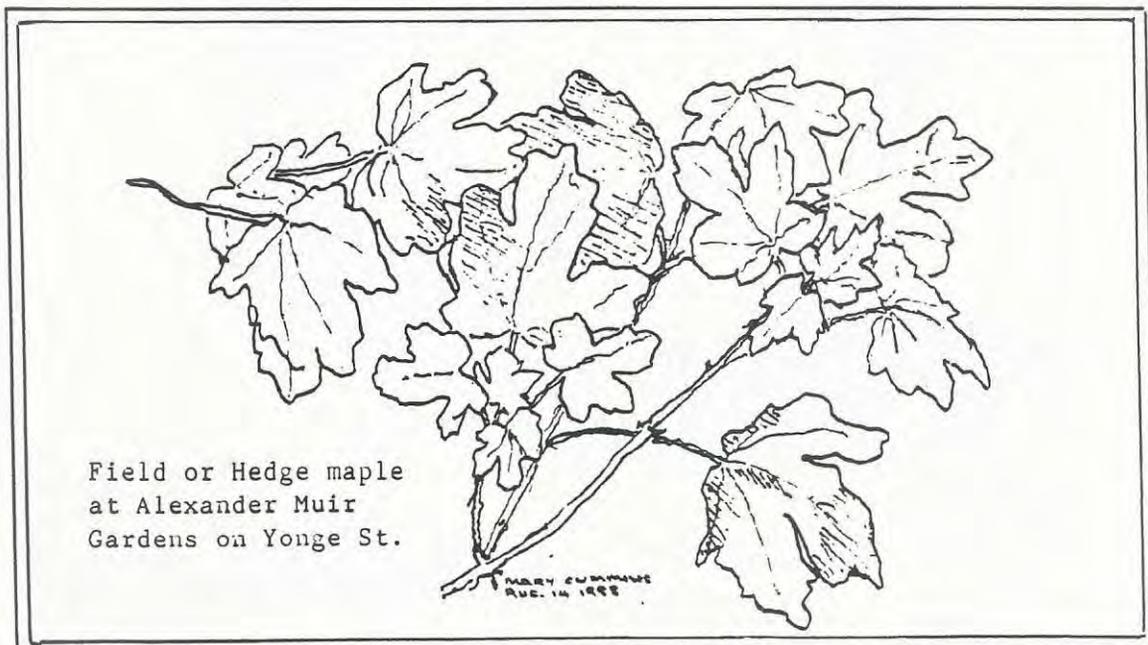


IN THE NEWS (cont'd)

DOWNSVIEW LANDS

Three years ago, the federal government announced that they would shut down the 600-acre Downsview airbase as part of a general scaling down of the Canadian military. In its place, they said, would be something wonderful - a national park, to fit in with the special character of the area. Some other things, but nothing that would trouble anyone. Details, they said would follow. Then in December of 1995, then defence-minister David Collette and local MP Art Eggleton unveiled a massive plan to redevelop the lands. The government established the Canada Lands Company, which would work with the city [of North York] to redevelop the lands -- with a mixed use plan with primarily parks and recreational space. Over the past year, the Canada Lands Company engaged in what they term community consultation. They put out a proposal call to developers to redevelop portions of the land, and asked residents to write in letters to suggest exactly what they'd like to see. They held open houses in the community. And now, that community is looking at a short-list of three development proposals for portions of the lands. One, from a consortium of companies called the Downsview Development Corporation calls for a high-tech business park on the site. Another, from the Erin Mills Development Corporation, wants to turn the base's massive supply depot into a wholesale trade mart. And the Reichmanns want to build a giant indoor theme park on the site. Local residents and leaders wondering where the national park is in all of this mix could be forgiven for scratching their heads. The process is puzzling -- most everyone involved, including the local councillor, North York's planning staff and even the mayor's office found out about the short list after they were called by a reporter for reaction. Presumably, details on [other developments] will follow. [See COMING EVENTS, page 29.]

extracted from "Details to follow? uh huh, yeah sure" by David Nickle in the NORTH YORK MIRROR, Nov. 27, 1996



IN THE NEWS (cont'd)

ECOSYSTEM FAILURE 'VERY HUMBLING'

An attempt to create a manmade, self-sustaining ecosystem in Arizona failed because humans simply do not understand the elegant intricacies that nature uses to keep the planet operating. Biosphere 2 was to be a glass-enclosed copy of a pristine and smoothly functioning miniature Earth. But it evolved into a place choked with carbon dioxide and infested with uncontrollable weedy vines. Cockroaches, ants, and katydids thrived, but humans hardly had enough oxygen to breathe. Built in Oracle, Arizona, at a cost of about \$200 million US, Biosphere 2 was designed to contain the soil, water, air animals and plants needed for a self-contained living system capable of supporting eight humans without help from the outside. The 13,000-square-metre facility had miniature forests, lakes, streams and an ocean that imitated the natural systems sustaining the Earth. Eight people were sealed into the Biosphere in September 1991. They were to be isolated for two years, raise their own food, breathe air recirculated by plants living with them and drink water cleaned by natural processes. In less than 18 months, it was clear the system was terribly out of balance. From 21 per cent oxygen concentration dropped to 14 per cent, barely enough to keep the crew functioning. It was learned later that the humans were being suffocated by the Biosphere's concrete walls. With the carbon dioxide molecules trapped, plants were unable to remove the carbon atoms and release the oxygen atoms the humans and animals needed to breathe. This led eventually to the oxygen shortage. To enable the eight crew members to stay, oxygen was pumped into the Biosphere. The crew remained for the project's full two years and emerged relatively healthy. Of the 25 small-animal species, 19 became extinct.

extracted from an article in the LONDON FREE PRESS, Nov. 23, 1996

FROGS WITH DEFORMITIES SEND CHILLS THROUGH SCIENTISTS

All across Minnesota and into neighbouring Wisconsin, South Dakota and as far away as Quebec, scientists and locals are seeing the same kind of grotesquely misshapen limbs, along with frogs with tails, missing or shrunken eyes, and smaller sex organs. In fact, scientists have had a hard time finding wetlands in Minnesota with no deformed frogs. Most recently, deformed frogs were found in Vermont. Scientists are not sure what is causing the deformities. The theories run the gamut from pesticides to parasites to radiation increased by ozone depletion, or a combination of more than one factor.

extracted from The Globe and Mail, Thursday, October 10, 1996

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*When I was a kid
even the mud smelled better
than the grass does now.*

haiku by Diana Banville

THE WEATHER (THIS TIME LAST YEAR)

March 1996, Toronto

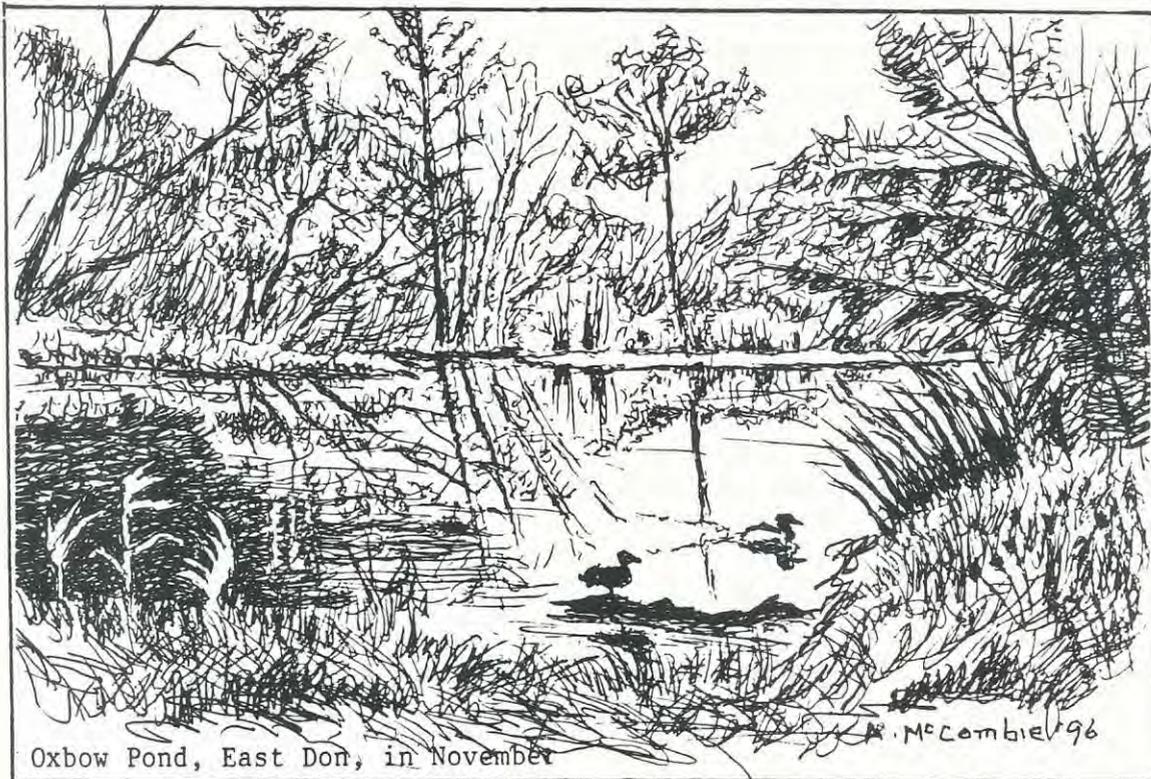
In some years, March in Toronto is a spring month. In other years, it is a winter month. In 1996, it was definitely a winter month. Temperatures averaged about 2°C below normal (-0.9°C downtown and -2.8°C at Pearson International Airport). Snowfall was close to double the average. Pearson Airport recorded 34.4 cm, and downtown recorded 33.6 cm which was the heaviest amount for any month this winter and the most since 1980 downtown, and 1972 at Pearson Airport. However, there was a pleasantly high proportion of sunshine.

The month began with a disturbance composed of two back-to-back storms that deposited close to 20 cm of snow on March 4th-7th. In its wake, severe cold covered Toronto with readings in the minus teens for several days. This accounts for the low average temperature for the month; afterwards, it was more-or-less seasonable. A second storm deposited 10-15 cm on March 20th-21st. In this case, temperatures near Lake Ontario were high enough that it mostly melted as it fell, but 10 cm stayed on the ground at the airport for three or four days.

In spite of snowstorms, March was dry and sunny. Rainfall at Pearson Airport was only 2.2 mm, a record low (beating the previous 2.3 mm in 1958). Higher temperatures downtown brought the rainfall total to just above 10 mm, the lowest since 1971. Total precipitation in the 35-45 mm range was about 60% of the average.

Gavin Miller

□



Oxbow Pond, East Don, in November

COMING EVENTS

Toronto Ornithological Club - Jim Baillie Memorial Bird walks - free

- Waterfowl from Toronto to Burlington - Sat. Mar. 15 from 9 am (all day) with Glenn Coady. Meet at the southwest corner of Grenadier Pond at Ellis Ave. and the Queensway to form a car pool. Bring lunch.

High Park in Winter - Tour of the Stars - Sunday, March 9 at 6:15 pm.

Meet at the Grenadier Restaurant. Bring binoculars. For more details call 392-7276, ext. 301.

Ecological Restoration and Naturalization in the Lake Simcoe Watershed -

Tuesday, March 4 from 8:15 am to 4:30 pm at the Aurora Conference Center, Yonge St. and St. Johns Sideroad. Registration: \$85; cost of Guide: \$50. To register, contact "Restoring Nature's Place, Box 93, Schomberg, Ont. or call 905-939-8498, or FAX 905-939-7044.

Canada Blooms - a six-acre floral extravaganza produced by the Garden Club of Toronto and Landscape Ontario - March 5 to 9 at the Toronto Congress Centre, 650 Dixon Rd., Etobicoke. Tickets: \$8:50 in advance; \$9.50 at the door. For more information, contact: Canada Blooms: Toll free Ontario: 1-888-256-6677.

Greening the Downsview Lands - The Urban Forest, a lecture by Andrew Kenney

- Wed. March 5 from 7 pm to 8:30 pm at the Canada Lands Company Ltd. Office, 35 Carl Hall Rd., North York. The talks are free, but pre-registration is required. Call (416)485-0788.

Toronto Entomological Association meeting - Sat. March 22 at 1 pm in Metro Hall, Room 303, 55 John St. - James Fullard will be giving a talk on "Moth Ears: different solutions for different problems". For more information call Alan Hanks at 905-727-6993.

Canadian Wildflower Society East Toronto Chapter meeting - March 26 at 7:30 pm at the Beaches Recreation Centre, 6 Williamson Rd. Anna Leggatt will be speaking about "Lawnless Gardens". For more information call Carolyn King at 222-5736.

Royal Canadian Institute free Sunday lectures at the J.J.R. Macleod auditorium Medical Sciences building, University of Toronto. Call 928-2096 for more information.

- March 2 at 3 pm - The New Science of photonics: technology for the 21st century
- March 9 at 3 pm - Insect music: the purpose of pitch in crickets and katydids [joint meeting with TFN & RCI]
- March 16 at 3 pm - Tibetan medicinal plants

Toronto Historical Board lecture series at 205 Yonge St.

- March 6 - The cholera epidemics of 1832-1866
- March 13 - The great fires of Toronto
- March 20 - The Noronic and other Toronto harbour disasters
- March 27 - Hurricane Hazel

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