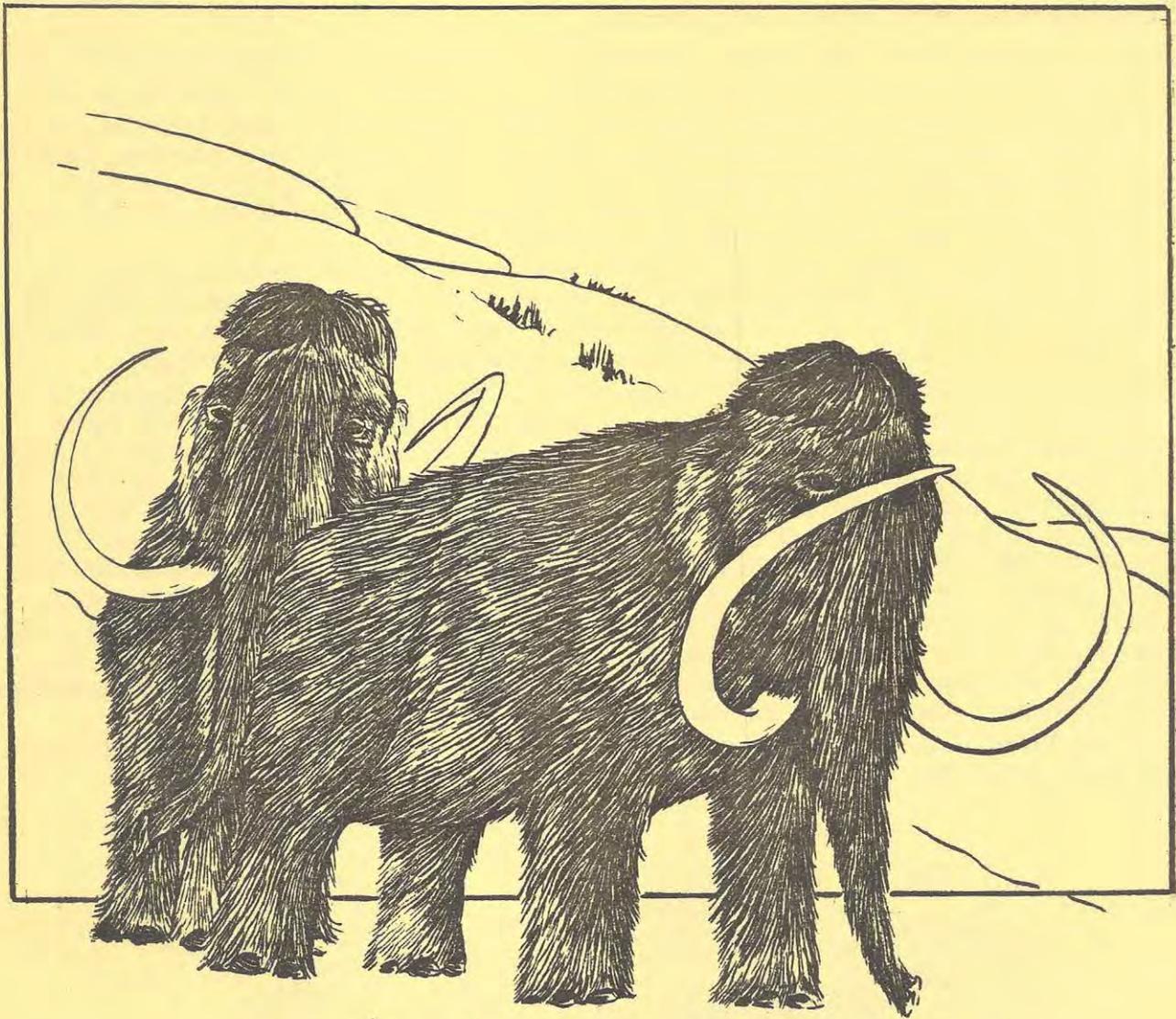


TORONTO FIELD NATURALIST

Number 349, September, 1982



© Paul Hanley

Elephants in Toronto?

See page 14.

President's Report

September, the month when blue jays, cicadas and crickets compete loudly for attention, the month when orange and black means monarch butterflies, not orioles, the month when black walnuts and wild grapes set us dreaming of winter feasts, the month when smoke from wood fires begins to replace the perfume of wild flowers, the month we turn our backs on summer and look forward to vigorous hikes, new interests, further studies.

In this my final report as president of TFN, I would like to draw your attention to the 1981-82 financial statements on pages 6 to 8. Jim Woodford (treasurer) and Al Kennedy (auditor) will be pleased to answer any questions you may have at the September meeting.

Also, on page 8 is the 1982-83 Executive. Because no further nominations were received, no election will be necessary at our Annual General Meeting on Sept. 7.

Highlights of our activities since last April were the TFN participation in the Spring Flower and Garden Show at the Civic Garden Centre. Our display, created by Jean Macdonald and erected with the help of Herb and Mary Smith, was a great success. More than 30 TFN members helped answer questions and hand out literature to the 27,000 people who attended the show.

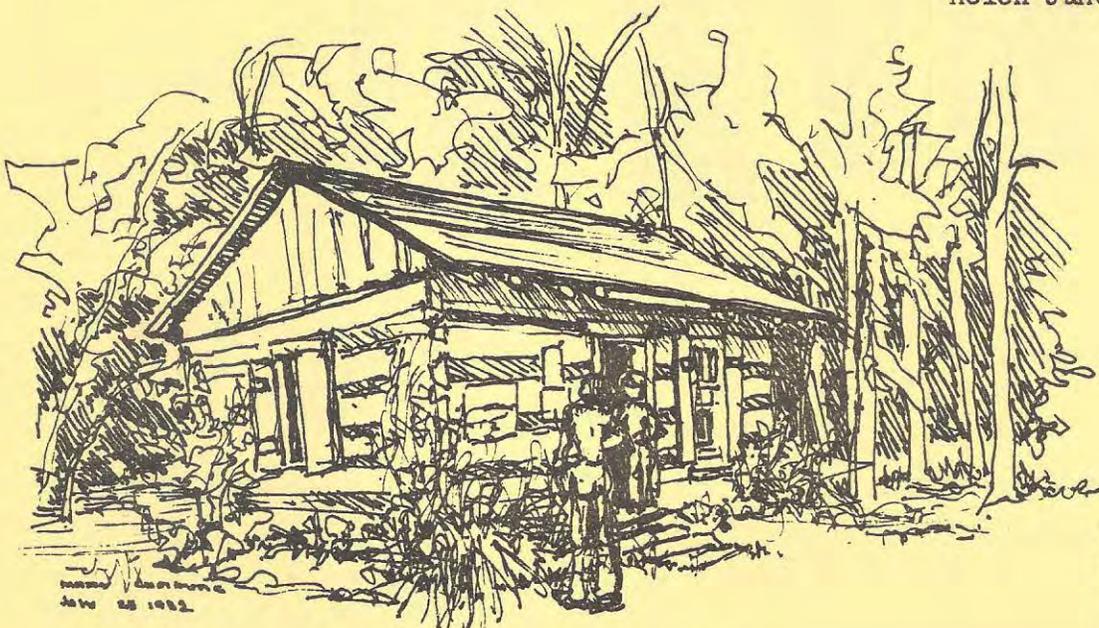
Another special event this past spring was our own Nature Festival which was held at Northwood Community Centre on Black Creek. Mary Cumming and Florence Preston organized it and I, for one, was greatly impressed by the many talents of our members and am looking forward to a similar event next spring.

The third and final activity I would like to report on is the TFN opening of the log cabin in Sunnybrook Park as a nature information centre. For those who haven't heard, the cabin has been kept open Sunday afternoons from 12 noon to 4 pm with at least four TFN members present to answer questions and hand out pamphlets, maps and information about the plants, animals, landforms, and park systems of the Toronto region. Sally Sturgeon (488-6833) or Joyce Cave (781-1914) want to hear from members willing to help with this worthwhile public service.

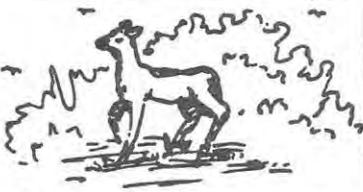
The pioneer log cabin located at the gates to Sunnybrook Park was originally built by Colin Stewart McInnis in 1869 in Eldon Township, Victoria County. The Rotary Club of Don Mills-Toronto had it moved and restored in 1975, thus fulfilling a dream of Tommy Thompson, then Metropolitan Toronto Parks Commissioner, for a nature study centre in the park.

I look forward to continued participation in the recreational and educational activities of the Toronto Field Naturalists.

Helen Juhola.



The cabin at
Sunnybrook.
by Mary Cumming

	Upcoming OUTINGS	TFN 
RAIN 	OR  SHINE	Everybody Welcome!

Wednesday EAST DON TRIBUTARY - Taylor Creek, Pine Hills Cemetery
 Sept. 1 Leader: Volunteer required
 10.00 a.m. Meet at warden subway station to walk east.

Thursday EVENING ESCAPE - Nature rambles with like-minded people.
 Sept. 2 Leaders: Mildred Easto and Mary Pannell
 6.45 p.m. Meet on the boardwalk at the foot of Lee Avenue. We hope to see migrating Monarch Butterflies at Kew Beach. (Queen East streetcar to Lee Ave.)

Sept. 1 Time to reserve a place on the bus for the outing on
 to 6th September 11th to the Jim Baillie Nature Reserve, by phoning Emily Hamilton at 484.0487. Confirm by sending your cheque for \$10.00 made payable to "Toronto Field Naturalists Picnic" to Emily Hamilton, 3110 Yonge Street #407, Toronto M4N 2K6. Cheques must be received by September 8.

Sat. & Sun. LESLIE STREET SPIT - birds
 Sept. 4 & 5 Go on your own this weekend. There will be many birders there to help with identification. Parking on the street at the foot of Leslie Street. Gates open at 9 am. The TTC's 'Aquatic Bus' leaves Queen & Leslie streets hourly from 9.30 a.m. till 5.30 p.m. and will take you right out to the tip of the spit, and will pick you up anywhere on the spit to ride you back. (This service on Saturdays and Sundays only).

Tuesday September 7th T.F.N. General Meeting (see page 39).

Wednesday EAST DON TRIBUTARY - Taylor Creek, Warden Woods Park
 Sept. 8 Leader: Volunteer required
 10.00 a.m. Meet at the Warden subway station to walk west.

HAWK-WATCH

All during September the Hawks will be migrating southwards. A very good place to see this phenomenon is Hawk Cliff Conservation Area near Port Stanley on Lake Erie. For details of this area see page 33 of T.F.N # 341, last September's issue.

UPCOMING OUTINGS - continued

- Saturday September 11th Junior Club Meeting (see page 39)
- Saturday Sept. 11 9.00 a.m. JIM BAILLIE NATURE RESERVE - birds, botany, sketching.
BUS CUTING. You must have reserved a place on the bus, which will leave Yonge and York Mills (northeast corner) at 9.00 a.m and will arrive back about 5 pm.
Cars. Follow the directions in your GUIDE to our nature reserve to arrive about 10.00 a.m.
Bring your picnic and enjoy the reserve in your own way. There will be leaders on hand for birds, botany, ferns and art.
- Wednesday Sept. 15 10.00 a.m. EAST DON TRIBUTARY - Taylor Creek, Massey Estate.
Leader: Volunteer required
Meet at the Victoria Pk. subway station to walk west.
- Saturday Sept. 18 9.00 a.m. HIGH PARK - botany and birds
Leaders: Emily Hamilton and Roger Powley
Meet at the first parking lot on West Road, on your right as you enter the park from Bloor Street, opposite High Park Avenue. (Subway to High Park station).
- Monday Sept. 20 Mushroom display. Civic Garden Centre (see p. 38)
- Tuesday Sept. 21 8.00 p.m. BEGINNING STARS - Wilket Creek Park
Leader: Mel Whiteside
Meet in the first parking lot off Leslie Street just north of Eglinton Ave. East. (Eglinton East #34 bus).
- Wednesday Sept. 22 10.00 a.m. EAST DON TRIBUTARY - Taylor Creek, Taylor's Bush Park
Leader: Helen Juhola
Meet at the corner of Woodbine and O'Connor.
(Bus #91 north from Woodbine station).
- Thursday Sept. 23 Environmental Group meeting (see page 39)
- Sunday Sept. 26 2.00 p.m. BURKE BROOK RAVINE - birds
Leader: Howard Battae
Meet on Bayview Avenue, east side, just north of the CNIB overpass. (Davisville bus #28 to the overpass).
- Wednesday Sept. 29 10.00 a.m. DON VALLEY - Todmorden Mills
Leader: volunteer required
Meet at Todmorden Mills sign. (Broadview #8 bus, or Mortimer #62. get off at Broadview and Mortimer, and walk down Pottery Road.). Cars. Pottery Road from Broadview or the Bayview Extension. Turn into the site at the Todmorden sign and continue on to the parking lot. Walk back.

LESLIE STREET SPIT? call Tor. Harbour Commission 863.2035

UPCOMING OUTINGS - continued

Saturday LAMBTON PARK - remnant prairie vegetation
 Oct. 2 Leader: Roger Powley
 10.00 a.m. Meet at the park entrance on the north side of Dundas just east of the Humber River. (Note: this is not Lambton Woods). Bus Lambton #30 between High Park and Kipling subway stations. Get off at the bridge.

Tuesday October 5th. T.F.N general meeting. (see page 39)

AUDUBON WILDLIFE FILMS

Five-program series to be presented at 8.15 p.m. on the dates indicated, at 252 Bloor Street West, north side of Bloor Street, between St. George Street and Bedford Road.

Auditorium entrance--west side of building.

Underground parking entrance--71 Prince Arthur Avenue.

Monday, October 18, 1982 -- Arthur C. Twomey -- SAGUARO COUNTRY

Wednesday, November 3, 1982 -- Rich Kern -- SMOKY MOUNTAIN MAGIC

Wednesday, December 15, 1982 -- John Wilson -- WILD CANADA:
 COAST AND COAST

Wednesday, March 16, 1982 -- Ken Creed -- WILD AND WONDERFUL
 ALASKA

Wednesday, May 18, 1983 -- Tom Sterling -- VANCOUVER: ISLE OF
 WONDER

Tickets -- Season Tickets \$14.00. Single Ticket \$3.50.

Tickets obtainable:

1. At the monthly meetings of the Toronto Field Naturalists.
2. At the door, after 7.15 p.m. on the night of each performance.
3. From Jack Gingrich, 225 Coldstream Ave., Toronto. M5N 1Y4.
 489-9953

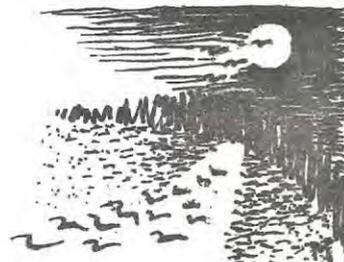
Send stamped, self-addressed envelope with cheque or money order OR reserve tickets by phone, to be picked up and paid for at the door.

Make cheques payable to the Toronto Field Naturalists.

An interesting recipe from Vera Irving...

MIGRATION NIGHTCAP

A skyful of moonshine
 A bayful of sparkling water
 A wedge of moonbeam
 A sprinkle of bird pepper
 Do not stir,
 HUMBER slumber.



AUDITOR'S REPORT

TO: MEMBERS OF THE TORONTO FIELD NATURALISTS

I have examined the balance sheet of the Toronto Field Naturalists as at June 30, 1982 and the income statement for the year then ended. My examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as I considered necessary in the circumstances.

Membership fees, donations and other revenues are as shown in the books. These receipts have been tested by me to bank deposits. However, because of their nature, these revenues are not susceptible to complete audit verification.

In my opinion, subject to the limitation of the scope of my audit as explained above, these financial statements present fairly the financial position of the corporation as at June 30, 1982 and the results of its operations for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

TORONTO, CANADA
July 28, 1982

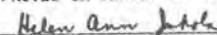

ALISTAIR J. KENNEDY
Chartered Accountant

TORONTO FIELD NATURALISTS
(Incorporated without share capital under the laws of the Province of Ontario)

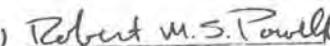
BALANCE SHEET
as at June 30, 1982

	<u>ASSETS</u>	
	1982	1981
Current Assets		
Cash - for general club purposes	\$18,558	\$12,803
Accounts Receivable	-	39
Prepaid Expenses	200	700
Accrued Interest	450	335
Short Term Investments	2,500	2,500
Inventory - at cost (Note 2)	<u>2,334</u>	<u>1,466</u>
	\$24,042	\$17,843
Other Assets (Note 1)		
Restricted for J. Baillie Reserve - Cash	10,166	8,672
- Short Term Investments	21,000	14,926
- Accrued Interest	<u>3,837</u>	<u>450</u>
	35,003	24,048
Property and Equipment		
Land	42,770	42,770
Building	\$3,050	
Less Accumulated Depreciation	<u>1,100</u>	<u>2,150</u>
	44,720	44,920
	<u>\$103,765</u>	<u>\$86,811</u>
	<u>LIABILITIES AND EQUITY</u>	
Current Liabilities		
Accounts Payable	\$ 3,218	\$ 1,928
Membership Fees received in advance	6,617	5,340
Unexpired Subscriptions	<u>1,346</u>	<u>1,378</u>
	11,181	8,646
	<u>EQUITY</u>	
Reserve for future expenditures re J. Baillie Reserve (Note 1)	<u>35,003</u>	<u>24,048</u>
Retained Earnings		
Balance at beginning of year	54,117	53,108
Income for year	<u>3,464</u>	<u>1,009</u>
	57,581	54,117
	<u>92,584</u>	<u>78,165</u>
	<u>\$103,765</u>	<u>\$86,811</u>
Working Capital: Dollars	<u>\$12,861</u>	<u>\$ 9,197</u>
Ratio	2.15:1	2.06:1

APPROVED ON BEHALF OF THE BOARD



(Director)



(Director)

The attached notes are an integral part of these financial statements.

TORONTO FIELD NATURALISTS
COMPARATIVE INCOME STATEMENT
for the year ended June 30, 1982

	<u>1982</u>	<u>1981</u>	<u>1980</u>
REVENUE			
Membership Fees	\$13,080	\$11,900	\$13,449
Income earning programmes:-			
Audubon Wild Life Films	525	1,059	1,082
Publications	415	15	478
Outings	534	908	237
	<u>\$14,554</u>	<u>\$13,882</u>	<u>\$15,246</u>
EXPENSES			
Subsidized programmes:-			
Ontario Field Biologist Publications	\$ 611	\$ 1,084	\$ 2,256
Junior Club	250	--	400
Meetings expenses	1,985	1,293	1,451
Newsletters, printing and mailing	11,244	8,374	8,636
Other printing expenses	924	129	115
Other mailing expenses	1,031	392	339
Honoraria	1,300	820	980
Advertising and publicity	292	403	779
Donations and affiliation fees	75	510	610
Liability Insurance	535	535	535
Office supplies	156	281	96
Telephone	317	279	249
	<u>\$18,720</u>	<u>\$14,100</u>	<u>\$16,446</u>
Operating Income (loss)	\$(4,166)	\$ (218)	\$(1,200)
Interest Income	1,610	1,119	1,052
Cash Flow (loss)	\$(2,556)	\$ 901	\$ (148)
Depreciation	200	200	200
Net Income (loss) before donations	\$(2,756)	\$ 701	\$ (348)
Donations	6,220	308	346
Net Income (loss)	<u>\$ 3,464</u>	<u>\$ 1,009</u>	<u>\$ (2)</u>

The attached notes are an integral part of these financial statements.

TORONTO FIELD NATURALISTS
NOTES TO FINANCIAL STATEMENTS
as at June 30, 1982

NOTE 1 - ACCOUNTINGS POLICIES

PROPERTY VALUATION

The Land and Shelter at the Baillie Nature Reserve are recorded at cost.

The cost of the Shelter is being amortized on a straight line basis over its estimated useful life of 15 years.

JAMES BAILLIE NATURE RESERVE

Donations received for the James Baillie Nature Reserve are segregated on the financial statements, and are to be used solely for Reserve purposes.

The interest earned on these funds is sufficient to cover the normal operating costs of the Reserve.

NOTE 2 - INVENTORY

A Wintario Grant of \$2,870 was received in 1978/79 to partially finance the cost of production and publication of a Toronto Bird Finding Guide Book. The total cost amounted to \$6,347. Sales of the book have reduced the Toronto Field Naturalists' share to \$414 at June 30, 1982 and this amount is included in Inventory.

TORONTO FIELD NATURALISTS
DEPARTMENTAL INCOME STATEMENT
for the year ended June 30, 1982

	Total	Regular Club Activities	Outings	Publications	Ontario Field Biologist	Audubon Films
REVENUE	\$21,928	\$13,080	\$2,310	\$469	\$2,258	\$3,811
COSTS						
Meetings expenses	2,957	1,985				972
Newsletters - printing	6,873	6,873				
- mailing	4,371	4,371				
Other printing expense	3,340	924		54	2,362	
Other mailing expense	1,538	1,031			507	
Honoraria	1,300	1,300				
Advertising & publicity	292	292				
Donations & affiliation fees	75	75				
Liability insurance	535	535				
Office supplies	156	156				
Telephone	317	317				
Outings expense	1,776		1,776			
Audubon Films expense	2,314					2,314
Junior Club contribution	250	250				
	26,094	18,109	1,776	54	2,869	3,286
Operating Margin (loss)	(4,166)	(5,029)	534	415	(611)	525
Interest Income	1,610	1,610	-	-	-	-
Cash Flow (loss)	(2,556)	(3,419)	534	415	(611)	525
Depreciation on Shelter at Reserve	200	200	-	-	-	-
Net Income (Loss) - Regular Operations	(2,756)	(3,619)	534	415	(611)	525
Donations received	6,220	6,220	-	-	-	-
Net Income (Loss)	\$ 3,464	\$ 2,601	\$ 534	\$415	\$ (611)	\$ 525

The attached notes are an integral part of these financial statements.

TORONTO FIELD NATURALISTS* EXECUTIVE 1982-1983

Past President: Helen Juhola (924-5806) 112-51 Alexander St., Toronto M4Y 1E3

President: Mary Smith (231-5302) 49 Thorncrest Rd., Islington M9A 1S6

Vice President: Jean Macdonald (425-6596) 88 Parklea Dr., Toronto M4G 2J8

Directors:

Dave Broughton (489-7444) 4 Heddington Ave., Toronto M5N 2K5

June Hocey (842-1427) 307 William St., Oakville L6J 1E5

Beth Jefferson (251-2998) 41 Lakeshore Dr., Apt. 404, New Toronto M8V 1Z3

Bruce Parker (449-0994) 109 Valley Woods Rd., Don Mills M3A 2R8 (TH 66)

Robin Powell (928-9493) 169 St. George St., Apt. 402, Toronto M5R 2M4

Roger Powley (535-4740) 25 Indian Rd. Cres., Toronto M6P 2E9

Winifred Smith (923-9015) 145 St. George St. Apt. 509, Toronto M5R 2M1

Steve Varga (223-4151) 5900 Yonge St., Apt. 403, Willowdale M2M 3T8

Jim Woodford (444-7939) 116 Three Valleys Dr., Don Mills M3A 3B9

OUR PUBLICITY (PROMOTION/PUBLIC RELATIONS) PROGRAMME

Can you help? (That is: Volunteers welcome!)



OUR "GINGERBREAD" DISPLAY UNIT

This is set up in libraries or other public places (such as Harbourfront) to let the public know about us (membership folders, our other publications) and to tell our message through pictures.

We wish to place it in SCARBOROUGH libraries for the next two or three months. Would any couple with a fairly spacious car (each panel is about 40" wide) be willing to handle this? You would have to

(a) transport the unit (disassembled) to the library, (b) assemble it, (c) arrange the pictures and pamphlets, (d) check occasionally that it is still in good condition and (e) disassemble it and transport to another location.



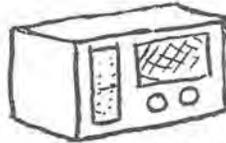
PHOTOGRAPHS.

We have a file of slides donated by various people but sometimes these do not supply a complete message. Would anyone be interested in taking photographs to complete a specific theme - say, for example, "The West Don in All Seasons".

THE MEDIA



Newspapers



Radio



Television

We often use the phrase "join us" when speaking to the public, but we have not any way of telling the public what we are doing (meetings, outings). People have to become members. We need to develop a relationship with the media to encourage them to carry our message on a regular basis.

We need someone to develop this relationship and then reliably supply copy or script regularly and on time. This might be a good commitment for a young, imaginative person who is interested in a career in one of the above. It would enable him/her to make contacts which might later prove valuable. Anyone out there?

Thanks to Jean Macdonald, Anne Thompson, Tom Gough, Sheila McCoy, Audrey Sillick, Herb and Mary Smith, Beth Jefferson, and Helen Juhola who have handled some of these tasks during the past year. We need new ideas and more help. If you are willing to help, please call Jean Macdonald (425-6596) or Helen Juhola (924-5806).

The following item appeared in Science '82 - March 1982 issue:

"The Taxonomist's Prayer was written recently by Donald Fisher, a technical editor at the Smithsonian Institution and faithful follower of the International Code of Zoological Nomenclature:

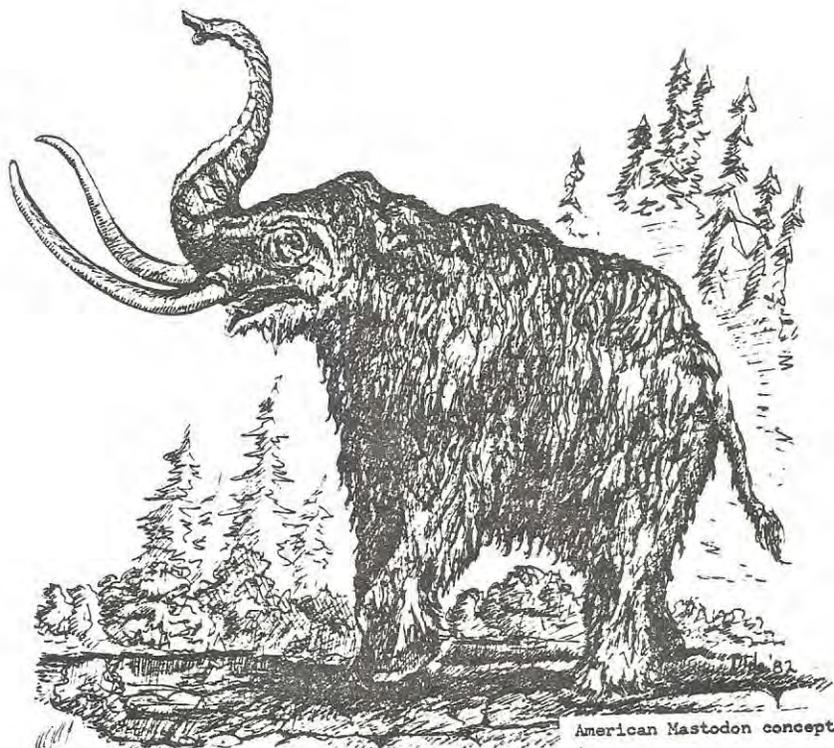
Our Linnaeus, who art in homonymy,
available be thy name,
thy kingdom taxonomic,
thy will be done in accordance
with the ICZN,
on earth as it is in synonymy.

Give us this day our binomial bread
and forgive us our nomen nudums
as we forgive those who misidentify us.

Lead us not into invalidation
but deliver us from syntypification,
for thine is the Kingdom and the Phylum,
and thy name be abbreviated forever.

Amen."

Contributed by Jane Gardner



American Mastodon concept

OF MASTODONS AND MEN

If one were to conduct a survey to select the one animal characteristic of the ice age, the chances are that the mastodon would be one of the more common responses, along with the woolly mammoth and sabre-tooth cat. Part of the mastodon's popularity is no doubt the result of its presence in many museums throughout North America. Its large size certainly permits it to compete with the perennial favorite, the earlier dinosaur. Widespread distribution of the mastodon from coast to coast, and from the Yukon to Mexico, enhances its chances of remains being seen; at least nineteen skeletons have been mounted in various museums across the continent.

The idea of having a mastodon on display in a museum is as old as the first museum in North America. Charles Willson Peale, better known as a painter than as a paleontologist, collected and reconstructed a mastodon for his museum in Philadelphia as early as 1801. Peale's mastodon has the distinction of being the first fossil skeleton to be reconstructed in North America. His excavation of the skeleton was immortalized by his son Rembrandt in a painting entitled, "Exhuming the Mastodon".

Peale's mastodon was not the first record of the animal for the continent. Many isolated teeth and other bits of mastodon were collected by early explorers and sent back to European museums. The earliest published record of the North American mastodon was in 1739. These remains were collected by Charles Le Moyne, Baron de Longueuil, on a trip from Montreal down the Ohio River to the Mississippi. Mastodon remains were popular in Europe and many specimens were sent back to wealthy patrons or members of royalty. Benjamin Franklin sent some bones to the Margrave of Anspach and these specimens were duly described in the Transactions of the Royal Society of London.

Many of the finds sparked further interest in the animal and a fair amount of controversy as to the nature and habits of this large beast. Some scholars, religiously inclined but with little training in anatomy, cited the immense bones as evidence of a former race of giants drowned in the Universal Flood. Other scholars recognized that the bones were not those of a human, but were still at a loss to explain what type of animal they did represent. Their large size suggested an elephant but this animal's teeth were of the wrong type. The teeth of a mastodon are very distinctive and quite different from those of a modern elephant or even of a woolly mammoth. The chewing surface of a mastodon's tooth is formed by two or three pairs of rounded cusps, hence the origin of the name "mastodon" or "breast-tooth" in reference to these pairs of conical cusps. An elephant's or mammoth's tooth, in contrast, is composed of a series of narrow plates.

Because of the unique construction of the tooth and the large size of the animal, many theories were proposed regarding the supposed habits of this extinct beast. William Hunter, a noted anatomist of the late 1700's, argued that the shape of the teeth indicated that the animal had to be carnivorous and therefore not related to the elephants at all; he preferred to call it a "pseudelephant" or "animal incognitum". By the more imaginative, it was described as armed with "great claws, fierce disposition, and the ability to catch other animals by mighty leaps" or "cruel as the bloody panther, swift as the descending eagle, terrible as the angel of right". By the end of the

century, however, the question of the mastodon's identity was essentially settled by the father of comparative anatomy, Cuvier, who demonstrated that, yes, it was indeed herbivorous, and related (although different in many respects) to the elephant. It was Cuvier who coined the name that is still used today as the common or popular name of the animal, "mastodon".

The scientific name of the mastodon is Mammuth americanum. Mammuth is an older term than mastodon and means "earth burrower", a name used by farmers of the Middle Ages in eastern Europe to account for the gigantic bones they sometimes found in their fields; the local superstition was that these were the remains of gigantic burrowing beasts which turned to stone if they came to the surface and were exposed to the light of day. Our North American form is related to and was derived from the European forms. However, it is the only representative of this group which entered North America and it has many characteristics which distinguish it from its European relations.

Interest in the mastodon didn't lag in North America. George Washington had a tooth of one as a curio and Thomas Jefferson even set aside a room in the White House as a museum to house his many objects of natural history including mastodon bones. Jefferson's interest in the mastodon led him to hire William Clark to conduct an expedition to Big Bone Lick, Kentucky, to secure some mastodon remains; it was to be essentially the first scientific expedition funded by the United States Government. Later when Jefferson outfitted the Lewis and Clark expedition to explore the Louisiana Purchase, he specifically instructed them to watch for living mastodons.

As previously mentioned, the mastodon had a widespread distribution in North America during the Pleistocene; so it was just a matter of time before its remains were discovered in Canada. The earliest known discovery was in 1834 when a femur or thigh bone was found at Cape Breton, Nova Scotia. Other finds followed, but like the femur, were confined to single specimens or isolated teeth. Not until 1912 was a partial skeleton uncovered. This specimen, found near Welland, is the mastodon on display in the Royal Ontario Museum. Like many other specimens found in eastern North America, the Welland mastodon had been preserved in a peat bog.

One never knows where mastodon bones or teeth are likely to turn up. Scallop fishermen have hauled up mastodon teeth in their dredges from the floor of the continental shelf, miles from the current coastline. Such finds provide dramatic evidence for the amount of drop in sea-level during a glacial advance. Another underwater mastodon was recovered from Wakulla Springs, near Tallahassee, Florida, during the 1930's. The recovery of this almost complete skeleton from thirty-five feet of water, using a primitive hardhat and hand-pump system, marked the first underwater recovery of fossils in the state - an event that has become commonplace since the invention of scuba gear.

Even the famous tar pits in Los Angeles have produced mastodons. The museum at the pits has two mounted skeletons on display, a young female and a juvenile. It is one of the few museums in the United States to have two individuals on display. Other specimens of mastodon have been recovered from more conventional deposits across the continent, that is outcrops of sediments exposed in badlands.

Despite the large numbers of mastodon specimens already found, much remains

to be learned about the animal. The many isolated finds provide a clear indication of its distribution but not much more. Good data regarding preferred environment or habitat, food preferences and causes of its extinction are elusive. Rather than merely picking up its bones as has been done in the past, refined techniques are now being employed to study the sediments in which the bones are found. Associated plants, pollen and snails are being collected, all of which provide us with information concerning the climate at the time the mastodon lived. Armed with this additional data, we'll be able to learn and understand more about this ancient beast which has intrigued man for so long.

H. Gregory McDonald

FOR FURTHER READING ON MAMMOTHS AND MASTODONS...

The Mastodon by L. S. Russell, published by Royal Ontario Museum and University of Toronto, 1965. Illustrated. 16 pages. Bibliography.

"Mastodons of the Hudson Highlands" by Henry Fairfield Osborn, reprinted from Natural History Jan./Feb. 1923. Illustrated.

"New Records of Mastodons and Mammoths in Canada" by C. M. Sternberg, Geological Survey of Canada, reprinted from The Canadian Field Naturalist, March, 1930.

"Post-Glacial Occurrence of Mastodon Remains in Southwestern Ontario" by Loris S. Russell, Royal Ontario Museum, reprinted from Transactions of the Royal Canadian Institute, No. 57, Vol. XXVII, 1948.

"Additional Records of Mastodons and Mammoths in Canada", by C. M. Sternberg, Natural History Papers, National Museum of Canada, No. 19, Sept. 30, 1963.

"Mastodons, Their Geologic Age and Extinction in Ontario, Canada", by A. Dreimanis, reprinted from Canadian Journal of Earth Sciences, Volume 4, 1967.

"Extinction of Mastodons in Eastern North America: Testing a New Climatic-Environmental Hypothesis", by A. Dreimanis, Dept. of Geol., U. of Western Ont. reprinted from The Ohio Journal of Science 68(6) - November, 1968

The Illustrated Encyclopedia of the Animal Kingdom, Volume 4, Danbury Press 1970.

Le Livre des Mammouths by Josef Augusta, published by Nouvel Office d'Edition, Paris. 1966 (French edition). Orig. pub. 1962. Illustrated by Z. Burian.

Fast in the limestone,
Somehow creatures of the past
Come alive again.

(haiku by Diana Banville)

This Month's Cover

"The Woolly Mammoth - *Mammuthus primigenius primigenius*" - by Paul Harpley

While walking the concrete and asphalt ways of Toronto, do you ever stop to think of the possibility that mammoths once walked here too? Take Eloor and Sherbourne, for example (Royal Ontario Museum Specimen #69, tooth). If you happen to live on Shaw Street, so did a mammoth perhaps (ROM Specimen #1163, tusk). Was there once a North Yorker who wore tusk specimen #1197? From one side of town to the other, indications are, the mammoths wandered (Scarlett Road and north of West Hill, specimens #1195 and #1973, teeth).

Mastodon teeth, on the other hand, are almost as scarce as hens' in Toronto. However, next time you're on the beach below Scarborough Bluffs you may be lucky enough to spot one to match ROM Specimen #4681.

The Woolly Mammoth belonged to a species which ranged across the northern hemisphere some hundreds of thousands of years ago until (some say) as recently as a thousand years ago. It crossed the land-bridge and was common in North America. The American Mastodon's beginnings as a species go back some millions of years, yet it survived through the Pleistocene too - at least till about 9000 years ago. Its ancestors, however, crossed into this continent via the land-bridge from the Old World. But did a mammoth ever meet a mastodon on some Toronto trail? Well, that's another question...

As its name implies, the Woolly Mammoth was adapted to severe arctic-like conditions and could live in grassy tundra or taiga, much closer to the glaciers than could the American Mastodon which had a hairy coat without the dense woolly undercoat of the mammoth. Boreal-like spruce-bog was the favourite habitat of the American Mastodon in our general area. (Most mastodon remains found in Canada, coast to coast, have been in southwestern Ontario.) Both boreal- and arctic-like conditions have prevailed in the Toronto area at different times within the life-spans of these two species.

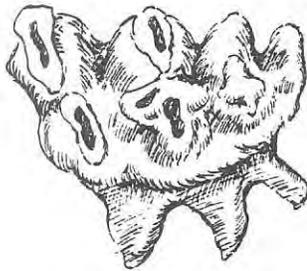
Both these animals belong to the well-named order "Proboscidea" along with the elephants of today. Which brings us to the question "Were they really elephants?" The Woolly Mammoth belongs to the family Elephantidae so it qualifies easily. The more primitive American Mastodon belongs to a separate family but the two share a common ancestor. Both have been grouped by some systematists in the "Elephantidae", a handy, all-inclusive category to cover the twenty or so genera with their dozens of species which have evolved in the last few tens of millions of years in the Old and New Worlds. The near-hairless forms resembled, in this respect at least, the present-day African and Asian elephants; preferring warmer climes, they had no need of thick coats. Evidence of only one of these, the Columbian Elephant, has turned up in Ontario, where the climate at some time, in the southwest, was apparently moderate enough. All the other forms apparently occurred to the south and west of Ontario.

Take a look at the teeth illustrated.

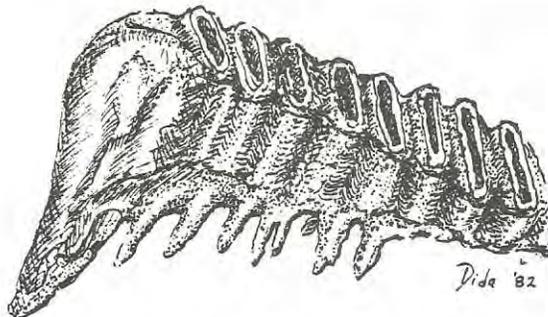
You never know what you might find while shuffling through the gravel!

DB

Have you seen one of these around?



Mastodon Tooth



Elephant Tooth
(Mammoth's is similar.)

from sketches made at Royal Ontario Museum from specimens on display.

COMMENTS ON "Why Bother Learning The Scientific Names?"*

This was a fascinating article, especially to a reader who has long been interested in the individuals after whom, and by whom, plants and animals have been named. Such a study takes one into the highways and byways of the literature on natural history; it also teaches the need for accuracy. The apparent explanation is not necessarily the correct one. Roger Powley's choice of the Canvasback Duck is a good example. An alternative explanation to that offered by Powley for the specific name *valisineria* was given in 1928 by T.S. Palmer, in an article in *The Condor* and this was repeated by E. S. Gruson, in 1972, in his book *Words for Birds*. This explanation is confirmed by reference to Alexander Wilson, who introduced the Latin name *Aythya valisineria* in his *American Ornithology* in 1814. Wilson wrote that the birds arrive in mid-October and spend the winter in the mouths of rivers in the neighbourhood of Chesapeake Bay. "At the Susquehannah they are called Canvas-backs..." They are found "in that particular part of the tide water where a certain grass-like plant grows, on the roots of which they feed. This plant, which is said to be a species of *Valisineria*, grows on fresh water shoals of from seven to nine feet..." Wilson makes no reference to the derivation of the English name Canvasback, nor is there a mention of the valise.

The *Shorter Oxford Dictionary* gives two meanings for the word 'Canvasback', stating that its use for the duck is a figurative derivative of "a back of a garment made of canvas" and that this meaning of the word came into the English language in 1605. Gruson expands on this idea, noting that 17th century courtiers who could not afford expensive doublets had garments made with less expensive cloth, or canvas, in the back. This explanation certainly fits the contrasting appearances of the back and belly of the duck rather well. The word "valise", which corresponds to the medieval Latin "*valisia*" is of doubtful origin.

In his reference to the genus *Valisineria* Wilson undoubtedly meant *Vallisneria spiralis*, known variously as wild celery, tape-grass and eel-grass. Wilson, himself, mentions that the plant that the ducks ate resembled celery. This genus was named by Linnaeus after Antonio Vallisneri de Vallisnera (1661-1730) who was a professor of medicine in the University of Padua. Palmer makes the interesting, and probably valid, comment that the volume of *American Ornithology* containing the description of the Canvasback Duck was not published until a year after Wilson's death, so that he may not have had a chance to correct the spelling in proof had he been aware of the error.

Bruce Cruikshank

References

- Gruson, Edward S., 1972, *Words for Birds*, p 53
 Palmer, T.S., 1928, *The Condor*, 30, p 300
 Wilson, Alexander, 1814, *American Ornithology*, 8, p 103

* See TFN 346, page 11, March 1982

IT'S BEEN A LONG TIME

Do you realize that with this issue we're starting our 45th year of publication of the newsletter? The first issue (which Ott Devitt saved for us all those years!) is dated September, 1938. Reading over the back-issues one can see the changes in emphasis reflecting the times. Nobly, single editors of the past have struggled to make the content informative, entertaining and stimulating. Nowadays, with burgeoning membership and extending activities, it takes a sizable committee to "cover" the whole scene of involvement.

This season, Helen Juhola has agreed to rejoin our Editorial Committee. Florence Preston is still editing program material - the TFN meetings, "Coming Events", group meeting reports, and notices, as well as her other specialties - "A Naturalist's Code of Ethics" and "People". Emily Hamilton is continuing editing outings listings and reports, and TFN checklists. Jean Macdonald handles the current affairs aspect, editing "Issues" and the book reviews. Mildred Easto is still news editor, looking after "In The News" and "In Exchange" and will be keeping up to date her lists of periodicals and nature organizations of interest to naturalists. Bruce Parker is still concerned with records, gathering in species sightings and nesting information. (Remember Bruce is interested in mammals, reptiles and amphibians as well as birds). He'll continue to publish his Ontario bird species bibliography. Diana Banville will still be doing the editing involved with artwork and poetry.

All of us are "corresponding editors": send us your letters expressing your views and observations. Any of us may be involved in editing your feature articles and studies; do continue to send them along.

The editors often prepare their own copy - especially the last-minute material. However, we appreciate so much the beautiful work of four members who prepare the bulk of it...Agnes Klassen, Muriel Miville, Jeff Nadir, and Betty Paul. We're glad they're on our team.

During 1981 seventy-two people (mostly members) contributed material for the newsletter. This includes the eight illustrators. Such participation is what gives our publication its special flavour. WE THANK YOU ALL!

Editorial Committee

TFN LIBRARY REPORT

Interest has not waned during the summer in our TFN Library. The list of donors is rather lengthy - Reta McWhinnie, Peggy Love, Margaret Cook, Freda Slichter, Emily Hamilton, Jim Hodgins, Jack Gingrich, and Mildred Easto. Gradually we'll be reviewing and listing titles.

By the way, two books reviewed in the May issue are in our library - Shrubs of Ontario by J. H. Soper, and Biology of Plants by Peter C. Raven. Call 690-1963 if you are interested in examining any material in our library.

DB

NATURE FESTIVAL REPORT

It took most of the morning to set up the work of TFN members for display at the TFN Nature Festival, June 12, 1982. The number of people coming to view and participate was smaller than expected. However, it did not dampen our enthusiasm. Some boys from the district around Northwood Community Centre where the festival was held came to enjoy lunch with us on the porch overlooking the ravine.

In the large ballroom Sally Sturgeon was demonstrating nature-crafts, a very popular activity. Mary and Herb Smith were assisting people in making their own stained-glass hangings. Mary and Herb showed large stained-glass windows of designs from nature and a needlepoint of a native magnolia. Emily Hamilton displayed her beautifully-arranged collections of shells, and of wild plants bearing the name "canadense" or "canadensis". Jean Macdonald, Isabel Smith, May Staples, and Emily Hamilton showed knitted and sewn garments decorated with nature themes. (Of course, Jean's award-winning TFN banner was effectively utilized.) Margaret Briggs showed craft items such as a book-cover and glasses-case with natural motifs. Molly McEwen displayed her hooked rugs, painted stones, and needlework of seal-designs. Mildred Easto brought along a selection of her antique china collection with bird and floral motifs.

On the wood-panelled wall, Joyce Cave showed some oil paintings of subjects such as marsh marigolds, trilliums, and a view in Presqu'ile Park. A painting by Martha Wallace, "The Edge of the Woods", and some small watercolour scenes by Rowena Grant were shown, and a Chinese-brush style painting by Margaret Bentley, along with embroidered pictures of birds and roses by Bessie Romano. A wall-plaque made of materials from the forest-floor was displayed by Karin Fawthrop, among other smaller craft items. Paintings hung included many watercolour floral studies by Mary Cumming. Some oversize nature cartoons by Diana Banville hung in the lounge.

The TFN Nature Sketching Group was represented by dozens of ink and pencil sketches, as well as some colour work, arranged on sheets of bristol-board. Those headed "Around Toronto" included sketches and drawings by Sheila McCoy, Martha Wallace, Irene Nippa, Betty Paul, and Anne Van Egmond. "At the Zoo" showed animal impressions and studies by Diana Banville and Mary Cumming and their notions of humans came out in the panels headed "People Being Natural". Two of these were headed "Children Resting", nursery-school drawings by Mary Cumming. "Naturalists Go Wild" was the heading of a display of masks and other items made from discarded materials - a message to discourage excess packaging.

Reproductions of newsletter artwork were being sold at one table and at another cards made from pressed garden-flowers by Frances Sturgeon and Ottelyn Addison. All proceeds were passed on to TFN (thanks to the artists!)

There was tea and coffee, which Florence Mason organized. There were slide-shows in the projection room; "Toronto the Green" was shown a number of times. Many also enjoyed walks in the ravine for nature-study. Alan Greenbaum and Jeff Nadir were kept busy as guides and commentators that day. Many other members rallied round Florence Preston, the co-ordinator, to help the Nature Festival run smoothly. Its success was evident in the obvious enjoyment and enthusiasm of all who came.

Mary Cumming

A FLYING VISIT TO BROWNSVILLE

Deciding on a three-day birding trip to southern Texas before Christmas, we made our bookings on American Airlines in order to hook up with Texas International from Houston to Brownsville; this involved a plane change at Chicago as well. We chose Brownsville because it is about midway between two important wildlife refuges at the southernmost point in Texas, where the boundary dips deeply into a countryside typically Mexican and subtropical.

We left Toronto International Airport at 1 P.M. on Sunday, December 13. As the plane taxied into the airport at 9:45 P.M. Texas time, we saw several hares, in the bright landing lights, scudding away into the sparse grass on the left of the runway. On disembarking, we were struck by the balmy atmosphere, at this late hour around 70°F. At the terminal, our luck deserted us temporarily as we failed to contact our car-rental agent and found that the bag containing our telescope (among other things) was missing. So we hired a Mexican taxi-driver to take us about seven miles to our motel, the Valley Inn and Country Club. We found our unit at the edge of a golf-course lined with palm trees on a courtyard full of flowering shrubs. The only birds seen here the next day were great-tailed grackles which were numerous and vocal.

The next morning at 8:30 the genial car-rental man brought the car to our door (and later that day our missing bag was delivered at the motel office). We left at about 9 A.M. for the Santa Ana Wildlife Refuge. A very light rain was falling, scarcely more than a "Scotch mist", but the air was mild, about 68°F. The Santa Ana is said to be 45 miles from Brownsville, but our local advisers must have sent us by the longest possible route as our odometer registered 67 miles on arrival.

The countryside was a great, flat plain with seemingly endless ploughed fields and a few plantations of sugar cane and cabbages, but the drive was saved from monotony by the many kestrels and loggerhead shrikes which were dotted along the hydro wires. We saw both bronzed and brown-headed cowbirds feeding in the fields along with many great-tailed grackles and a few red-winged blackbirds. At a pond we saw a couple of great egrets and a white-faced ibis; two white-tailed kites were disporting quite close to the road. Turkey vultures were often seen circling, often a dozen or more together, over some distant pasture; at least one black vulture was identified.

On our arrival at the Santa Ana Refuge, the sun obligingly appeared. We stopped at the Visitors' Center to pick up a couple of check-lists and have a word with the ranger on desk duty who enumerated for us the birds that were specialties of this sub-tropical forest of 2,000 acres on the Rio Grande. One of the rarities he had told us to watch for was the white-tailed hawk, and almost as soon as we left the building we spotted one of these striking buteos on a utility pole right out in the open, before we entered the Refuge proper. It was an immature bird with a pure white tail. A cattle egret was standing on the levee which runs along the north side of the Refuge, the only one we were to see in Texas.

Along the first trail behind the Visitors' Center we were greeted by a kiskadee flycatcher, a bird of unexpected brilliance and size. It flew across the path twenty feet in front of us and flashed among the trees to our left, while

on our right we spotted a ladder-backed woodpecker, and only a few yards away a golden-fronted woodpecker at eye-level among the branches. The leaves had fallen from some of the trees, but others had kept their foliage and were quite green. Soon we came to a small group of about six blue-grey gnatcatchers along with three or four ruby-crowned kinglets.

This trail led to a pond of about ten acres' extent with a thickly wooded shoreline. At one end several black-bellied tree-ducks were floating placidly, and at the other an anhinga was perched on a large bird-house erected in the water. On another such structure were four or five cormorants--we were hoping for olivaceous cormorants (a Mexican species), but we had to settle for double-crested. Then a ringed kingfisher flew the length of the pond; it looked like a giant belted kingfisher, except that the entire breast and belly were chestnut-coloured.

Following the loop around the refuge, we tried another trail upon which I caught a distinct glimpse of a Lichtenstein's oriole, recognizable by its large size and brilliant orange plumage. Two smaller orioles darted across our path--either Baltimore or Bullock's. Then we came upon a couple of green jays in their gorgeous green, blue and yellow plumage. They were feeding on the ground in the thicket, and with them were two red-billed pigeons. In another thicket we spotted a couple of white-winged doves. This trail was also well supplied with the curious, elfin, black-crested titmice. We encountered our first chachalacas standing at the edge of the path like long-tailed grey-brown chickens; they scuttled off as we approached, cackling as they went. A little farther on we saw fifty of them at a feeding station where they were joined by a long-billed thrasher, a mockingbird, a green jay, and a number of titmice. We created a near riot by tossing a handful of peanuts among the chachalacas.

We poked into three or four more trails, but failed to come up with anything new, except a couple of unidentified vireos (probably white-eyes). By now it was five o'clock and, as sunset is about 5:15 at this time of year in Texas, we started back to Brownsville, finding by our own devices a shorter route which was indeed 45 miles. Along this road we came upon a little stream with mudflats where there were about 75 long and short-billed dowitchers, along with dunlin and small peeps.

The next morning we left Brownsville at 9 A.M. for Laguna Atascosa National Wildlife Refuge, a drive of about 35 miles. The weather was mild and sunny, the temperature being in the low seventies around noon. This was a very different landscape from Santa Ana, being a flat coastal plain with semi-desert (cactus, mesquite, yucca) vegetation. The Bayside Tour which we took is 18 miles long and took about 3 hours to cover with many stops. It follows the coast along Laguna Madre Bay, and here we saw great numbers and varieties of waterbirds. Hundreds of white pelicans, redheads, pintails and wigeons; dozens of willets and long-billed curlews among the multitudes of shorebirds; about a dozen white-faced ibis, another dozen Louisiana herons, and smaller groups of great egrets, snowy egrets, little blue and great blue herons. There were also goodly numbers of Caspian terns, Forster's terns and laughing gulls.

On the land side of the road, a little band of six pyrrhuloxias flew along beside the car for about half a mile; they made it a kind of game. (They

are a lot like female cardinals but greyer and larger, and the males have a bright rosy-red streak spilling down throat and breast.) On the road, where it turned inland, we saw two roadrunners, one of them quite close (30 yds.) --these quick, fierce creatures seem the very symbol of this desert landscape. Having completed the tour, we found a pond on a very poorly marked spur trail off the Paisano Trail, a rough track, lined with scrubby, thorny bushes alive with mockingbirds (at least 30). On the pond we saw three least grebes, four pied-billed grebes, and a pair of black and white ducks which we were unable to identify (they looked a bit like oversized buffleheads). There was a yellowthroat in the sedge. On the way back to the car we spotted some yellow-rumped warblers, but we couldn't get close enough to say "Audubon" or "myrtle".

We were unable to take the Lakeside Tour because a controlled deer hunt was taking place on that side of the Refuge; we heard no shooting but we did see two rather tame white-tailed deer which may have just vacated the danger zone. We were also a bit surprised to see a*cottontail grazing in such a desert-like setting.

On our third day we set off from Brownsville at 9 A.M. for Copano Bay to take the boat-trip to the Aransas Refuge, the winter home of the whooping cranes. This was a 200-mile trip and the boat was scheduled to depart at 1:30 P.M. sharp. At about 10:30 we stopped to look at an extraordinary hawk perched in a tree in the median boulevard of the highway. It appeared to be all black with a touch of white at forehead and throat and a white under-tail. We were confident that we had the rare dark-phase Swainson's hawk. A few miles farther west we came to a field where three caracaras were circling and wheeling, showing off their brilliant white wing- and tail-patches. Our next stop was at a large slough not far from the highway where we saw 30 white-face ibis come down in the shallow water. There were also about 50 fulvous tree ducks which spooked at our approach and settled down again farther on. A snowy egret was standing at the edge of the pond very close to the road with three great egrets in the background, while 60 coots were placidly floating around and among them.

As we made the turn for Rockport, John spotted a tiny green kingfisher on a hydro wire over a shallow pool. At this stage we could not stop as we were afraid we might miss the departure of the boat from the Sea Gun Hotel about nine miles north of Rockport. As it was, we reached the dock with less than five minutes to spare, and scrambled aboard "The Whooping Crane" in the nick of time, joining the 40 other birders already aboard.

The tour is 32 miles long and takes about 4 hours. We set out across the bay followed by a big gang of laughing gulls (some of which took bread from our hands as they wheeled laughing above our heads) and by a few Royal terns. The skipper, Brownie, who gave a running commentary on the scene over the P.A., called up three dolphins with a sonar device; they followed us until we reached the intercoastal waterway containing the winter feeding grounds of the cranes, which are present at Aransas from mid-October to mid-April. Soon we saw a distant pair of great white birds, but did not slow down till the feeding birds

*Ed. note : The desert cottontail (*Sylvilagus auduboni*) is the common species of the valleys in the arid southwest, according to W.H. Burt, A Field Guide to the Mammals (Peterson series).

were to be seen at much closer quarters. Then the skipper edged the boat into the shallows until we were aground in the mud. From this position we viewed a pair of these magnificent birds at a distance of about 50 yards for about ten minutes. The cranes continued feeding unconcernedly while cameras and telescopes thronged the prow of the boat. In the course of the day we saw 32 whoopers--perhaps a third of the existing population. We also had excellent views of black skimmers, American oystercatchers and sandhill cranes, among scads of other waterbirds, and of six turkey vultures eating a dead dolphin.

After a delectable and exhausting day of bright sun and stiff breeze, we motored the 200 miles back to Brownsville (missing our way and getting lost in Corpus Christi), and tumbled into bed in a state of happy collapse at 11:30 P.M. The following day we bade fond farewell to Brownsville in bright sunshine and 75°F warmth. We arrived in Toronto at 8 P.M. to a bitter wind and 10°F cold but with visions of cactus flowers and roadrunners dancing in our heads.

Naomi LeVay

"BIRDS NOT OBSERVED"

From Miss Katie Burkhardt, we have received a note reminiscing about a visit to Grand Manan Island several years ago, when she met the late Dr. Healey Willan. On one occasion during the visit, the group went on a boat trip and had a picnic on one of the islands nearby. Dr. Willan did not appear to be watching the birds very carefully, but the next morning the following item appeared on the notice board at the lodge:

Birds Not Observed on Picnic to Kent Is., New Brunswick, July 14, 1954.

List compiled by Healey Willan, and friends.

Good Tern	Midnight Lark	Left Tern
Wrong Tern	Wolfe Owl	Toylet's Piper
Noo's Piper	Slightly Cuckoo	Cheep Petrel
Note Piper	Broken Rail	(or Poor Gass)
Working Gull	Bad Tern	Goode Gull
Hasty Swallow	Perpetual Grouse	Extra-Marital Lark
Open Mouthed Gnatcatcher		Brass' Rail

A Naturalist's Code of Ethics

The following item was noticed in Lamington Park, Australia, by Ellen Freeman:

Let no one say,
And say it to your shame,
That all was beauty here
Before you came.



A Cottager's Guide to the Birds of Muskoka and Parry Sound by Alex Mills.
Published by the author, 1981, 209 pages.

TFN member J. M. Griffiths sent us the Guide and this brief review: "A well researched book, well organized and containing a wealth of information on the arrival and departure dates. It reports the number of birds found in different places, the degree of commonness or rarity - apparently all derived from reliable records going back to the turn of the century or earlier. If a reader has a cottage in Muskoka or Parry Sound or holidays there, it is a wonderful reference to what you are seeing or can expect to see."

Each of the 265 species is given a narrative section containing miscellaneous information, ranging from a note on a Black-billed Cuckoo (killed on a window) which "contained an egg at the yolk stage", to comments on the varieties of trees in a stand. The names of many well-known birders can be found as contributors to the "reliable records" noted by Mr. Griffiths. As well as cottagers, birders who are interested in records will find this an intriguing book.

There are maps showing the areas covered and reference lists indicating in which township the places mentioned are located. There is also a bibliography and an index. There are three line drawings of birds and a cover illustration. Last but not least there is a photograph of the author at the back!

Alex Mills is a resident of Barrie and a biology student at the University of Guelph, who undertook this project in 1979. He corresponded with many of Ontario's birders as well as examining records at the National Museum of Canada the Royal Ontario Museum and other places.

Biotic Contents of Spooky Hollow Sanctuary and Short Hills Wilderness Area Nature Reserves owned by Hamilton Naturalists' Club 1982.

In effect, this paper covered booklet is a check list of the "biotic contents" of the two nature reserves owned by Hamilton Naturalists' Club. The two areas are treated separately in the one volume. It is well arranged beginning with policy guidelines for the reserves, and acknowledgments. The policy guidelines are really behaviour requirements for visitors, who enter the areas for "education" and "tranquil relaxation". Each property is described, a map is supplied as well as directions for getting there. (Helen Juhola feels watershed maps of both areas would enhance the information.) An index at the back of each section seems more of a glossary since it is listed by page numbers. However, the table of contents at the front will direct you to the flora or fauna in which you are interested. A "summary" in each section discusses species which could be expected but which have not yet been found. Book donated to TFN by Dave Bradley.

Plants of Essex County, A Preliminary List by Wilfred Botham. Essex Region Conservation Authority, 360 Fairview Avenue, West, Essex, Ontario, N8M 1Y6. 236 pages. \$5.95 plus \$2.55 postage.

The use of the term "a preliminary list" discredits this contribution to the botanical literature and knowledge of Ontario. A list which is 200 pages long

with seven or eight species on each page is hardly preliminary. Mr. Botham has thoroughly listed all of the plants which have been found in Canada's southernmost county along with notations on status, distribution and flowering periods. Flowering dates, the result of 15 years of personal note-taking, are given for most species. A list of mosses, liverworts and fungi is also included.

Botham explains an urgent need for this list: "the accelerating rate of change in the habitat that is manifested day by day.....less than three percent of the Essex Region is wooded". During the past 30 years many of the small woodlots and hedgerows of Essex have disappeared. As many as 254 of the 616 plant species which are considered rare in Ontario have been reported in the Essex Region.

- Bruce D. Parker

Peterborough. Woodlots Water Wildlife and Wilderness. Edited by G. S. Berry and B. F. O'Higgins. Produced by Peterborough Field Naturalists.

This small booklet is described on the cover as "A brief guide to areas of special interest for their natural beauty, geology, plant or animal life". In the list of contents we find "Warsaw Caves", "Orchids of Cavan Bog", "Tree Quiz" and more. It briefly deals with provincial parks in the area, and lands of the Otonabee Region Conservation Authority.

The following books have been donated to the TFN library.

The Walker's Guide to Nature by Connie Crochmal and Arnold Crochmal. Drake Publishers Inc., New York, 1977. 160 pages. (Donated by Emily Hamilton.)

This small soft-covered book covers almost every aspect of the world of nature and was written mainly to develop appreciation. It is a narrative rather than a scientific book, although elementary scientific facts are discussed, such as the divisions of the body of an insect. For general information this would be an interesting book for a Junior Naturalist.

Summit Lake. Four Seasons in the Sierras by Carl Heintze with photographs by Richard Heintze. Thomas Nelson Inc., Publishers 1976. 154 pages. (Donated by Emily Hamilton.)

This is a narrative describing four seasons at Summit Lake in the Sierra Nevada Mountains in California, as observed by the author. Two quotations from the Prologue will show the tone of the book - "Summit Lake remains a place where nature has not been completely compromised by the hand and foot of man"; "Summit Lake is alive. It is a living lake. Its life includes man. Man may never own it but he may share it and, in so doing, learn lessons for his own survival".

Animal Camouflage by E.M. Stephenson M.Sc., F.Z.S., in collaboration with Charles Stewart. Penguin Books 1946. 160 pages. (Donated by Peggy Love.)

Although entitled "Animal Camouflage" this book deals with creatures we might not immediately think of as animals - fish, insects, crabs, amphibians - as well as with the warm blooded "furry" mammals. The text contains a wealth of information of a scientific nature such as how camouflage contributes to survival, and how what a creature sees can change its colour. There are 13 black and white photos, a glossary and 3 appendices.

JM

REPORT ON BOTANICAL ART SHOW

Wild plants are becoming more and more popular as subjects among botanical artists. This was apparent at the show held in the tea room of the Civic Garden Centre last April (as part of the Spring Flower and Garden Show of the Garden Club of Toronto). Such subjects, in watercolour, as chicory (with luna moth), by Marjorie Dickenson; three species of trillium by Heather McClure; marsh marigold by Mary Anne Miller; and goldenrod by Margaret Roseman were all as effective as those of cultivated flowers. Mary Anne Miller's admirable style is strong, while retaining the beauty of the paper and freshness of colour. I was drawn to the work of Margaret Roseman but should have immediately recognized the technique of this Central Tech teacher, in which she employs, to a degree, a resist method. (Makes me want to try again, Margaret). A watercolour on gray paper by Anne Rich showed magnolia blossoms, a subject which lent itself to the opaque technique reminiscent of pastel work, and very striking. She also showed limited edition reproductions of good quality. Other fine watercolorists were Doris Allen with her "Four for a Dollar" (immense hybrid tea roses of delicate texture), and Elizabeth Berry, using flower shapes for effective bold patterns. Watercolour was by far the most popular medium, but there was at least one oil shown, some intaglio prints by Jacke Phillips, an etching in black, white and gray in triptych form by Janice Neal, and other prints. A mixed media entry by Marjorie Pepper was a floral with cherries. Even appliqué was represented. Photos shown included colour work by Burkhard Nowak, combined in one treatment of daisies to create a fantasy.

All of the work displayed was of a calibre to convince enthusiasts that botanical art is flourishing in the Toronto area.

DB

Keeping in touch . . .

This is the first time we have had a letter from a bird!

Dear Helen:

Just a note to let you know about the successful hatching of all my eggs this weekend.

I enjoyed seeing such a large number of city naturalists on May 8. I ended up with 13 eggs so I felt I better sit close and was so glad nobody came too close that I felt I had to get off my nest.

I will have my hands full looking after such a large bunch that I better get back to this task at hand.

Wishing you and your club all the success and a good summer of birds and plants.

Mrs. Grouse and family.
R.R. #0, Woodstock.

 ONTARIO'S FIRST HERITAGE TREE

In 1981 the Binbrook Historical Society decided that the history of one of their local trees should be preserved for future generations. Research was started and a grant applied for through the Ministry of Citizenship and Culture. This step led to the forming of the Local Architectural Conservation Advisory Committee to advise Council on sites or properties of Historical Significance.

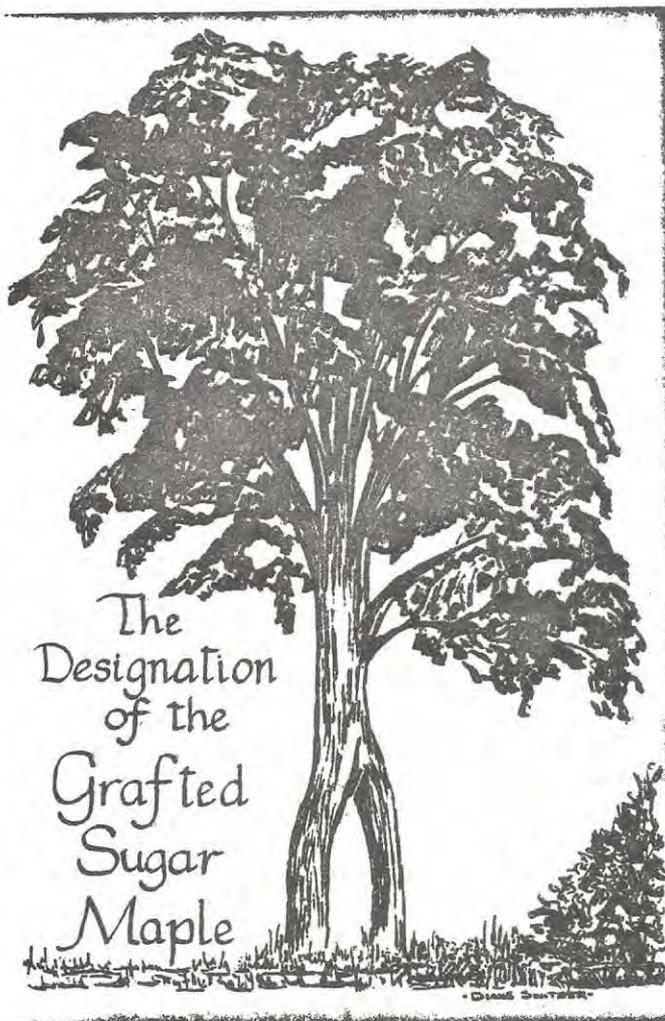
At a ceremony south of Hamilton on June 13, 1982, a plaque containing the following words was erected near the base of the tree:

"The plaque is erected to mark this rare Tree on the bank of Chippewa Creek. The tree was likely a territorial marker of the Cayuga Indian Band, according to Robert Mt. Pleasant, Tuscarora Band, Six Nations Ohsweken. It is over 150 years old, according to Dr. Peter Rice, Royal Botanical Gardens. The tree is 23.8 m (78'1") tall with an average crown spread of 15.5 m (51'). It is on the Honour Roll of Ontario Trees, Ontario Forestry Association."

Members of TFN attending the ceremony would have to agree that the cooperation was marvelous among the citizens, the Regional Government, the Municipal Government, the Royal Botanical Gardens, the Ontario Forestry Association and even the hereditary Indian Chief. However, in the rush to get ready for the ceremony, no one considered the environmental sensitivity of the tree and its surroundings. To prepare for the ceremony which required three benches, a microphone, and the erection of the Heritage plaque, the local works department ran a bulldozer from the road through the riverine forest (over the roots of valuable shagbark hickory trees) and levelled the area around the tree that was to be honoured, damaging its vital root system and pushing the brush and soil into the river. Only time will tell if the special maple tree will survive the treatment and the traffic invited by the newly created access from the road. (What was needed was a flight of three steps and a small gate leading to a woodchip path two hundred feet long.)

Mary Smith and Helen Juhola

(On examination by Emily Hamilton the tree was identified as Black Maple.)





ALONG THE WHEELCHAIR TRAIL

On one of the first spring-like days of this year, a friend and I visited the Toronto Garden Club Flower Show at the Civic Garden Centre. It was a true joy to the heart to see so many flowers and ferns, after viewing nothing but snow and ice during the long winter months. We stopped at the T.F.N. booth, and saw our interesting display. There I met a few members of whom I had only heard by name. I am one of the few T.F.N. members who is in a wheelchair. Consequently I am unable to join in the planned outings, but I share a love for nature and a concern for the preservation of the environment. I look forward to receiving the T.F.N. Newsletter each month.

We thoroughly enjoyed the Flower Display, and I was particularly pleased to find that the Civic Garden Centre building is fairly accessible for wheelchairs. A ramp, which isn't too steep, leads to the upper level. There is also a wash-room designed for handicapped persons.

After we left the exhibits we decided to take advantage of the warm afternoon and walk around outside. We weren't certain how far we could go until we spotted a sign which read "Wheelchair Trail". The entrance, south of the greenhouses, winds downwards into the Gardens and eventually leads to Wilket Creek Park.

It was a very beautiful walk that late April afternoon. The trees were beginning to show signs of life, hepaticas were in bloom and the grackles were very colourful in the brilliant sunshine. Along the way we saw an unusual sight. In one of the ponds a male mallard was putting on a mating ritual for a female close by. Suddenly he completely submerged! My friend informed me that this particular phenomenon in the mallard's "love-making" is not seen too often by humans. It made us feel we were intruding on a private love affair!

Returning along the trail, we found the uphill walk rather difficult. But as luck would have it, we met another T.F.N. member who kindly helped to push my wheelchair back to the greenhouses. This was my first trip to Edwards Gardens, and I fervently hope it won't be my last! In the midst of a big city, it's nice to find a spot where one can hear only the rustle of the trees, and the ripple of the streams. However, I would definitely suggest that a person in a wheelchair who plans to use this trail be accompanied by two or more able-bodied friends. The walking gets difficult in spots, when your one companion only weighs about 95 lbs!

Patricia R. Walsh

REPRODUCTIONS OF NEWSLETTER ARTWORK will be on sale at the September General Meeting between 7:30 and 8:15 (before meeting starts). See Betty Paul. These reproductions are on 80-lb. bond, suitable for framing in standard certificate-frames. Each design is limited to an edition of 25 copies in black and white. Have you a favourite cover or illustration? Let us know. \$2.00 each. All proceeds to TFN.

A SURVEY OF ONTARIO BIRD LITERATURE - PART 12

DOVES, CUCKOOS and OWLS

Doves and pigeons.

1. Alison, R.M., 1976. Mourning Doves wintering in Ontario. Can. Field Nat. 90: 174-176.
2. Armstrong, E.R. and D.L.G. Noakes, 1977. Albino Mourning Dove sightings in Ontario. Auk 94(1): 159.
3. Dennis Keith, 1977. Ringed Turtle Dove, Streptopelia risoria, at Thunder Bay, Ontario. Newsletter 31(2) (Thunder Bay Field Naturalists).
4. Dick, James A. and Ross D. James, 1969. The Ground Dove in Canada. Can. Field Nat. 83: 405-406.
5. Freeman, Doris, 1969. Ground Dove (Columbigallina passerina) at Thunder Bay District, Ontario. Newsletter 23(2): 104 (Thunder Bay Field Nat.).
6. Ranford, R. Barry, 1974. Early nesting of a Mourning Dove. Ont. Field Biologist 28(2): 45-46.
7. Saunders, R.M., 1951. Mourning Doves increasing as a winter bird at Toronto. TFN Newsletter 98: 6-7.
8. Shortt, T.M. and C.E. Hope, 1943. White-winged Dove in Ontario. Auk 60: 449-450.
9. Sziraky, Edith, 1980. Report on winter nesting of Rock Doves (Columba livia). TFN Newsletter 336: 11-12.
10. Thompson, Stuart L., 1951. Winter Mourning Doves in High Park. TFN Newsletter 98: 6.

Passenger Pigeon.

1. Arthur, E., 1976. Passenger Pigeon? Newsletter 30(3): 65 (Th. Bay F.N.).
2. Fleming, J.H., 1903. Recent records of the Wild Pigeon. Auk 20: 66.
3. Fleming, J.H., 1907. The disappearance of the Passenger Pigeon. The Ottawa Naturalist 20: 236-237.
4. Mitchell, Margaret H., 1935. The Passenger Pigeon in Ontario. ROMZ Contribution No. 7, 181pp.
5. Preston, A.W., 1968. Passenger Pigeons, that once were. The Lotus 1968.
6. Steele, William S., 1967. The Passenger Pigeon in Wellington County, Ontario. Can. Field Nat. 81: 172-174.
7. Talbot, A.G., 1969. An account of a hunt for Passenger Pigeons near London, Ontario, about 1870. The Cardinal 64: 8.

Cuckoos.

1. Anon., 1959. Yellow-billed Cuckoo in Northwestern Ontario, 1901. Newsletter 13(1): 9 (Thunder Bay Field Naturalists).
2. Burton, Don, 1953. Black-billed Cuckoo parasitized by Cowbird. The Intermediate Naturalist 8: 26.
3. Ryder, R.A., 1958. First record of a Yellow-billed Cuckoo in the Thunder Bay District. Newsletter 12(4): 47 (Thunder Bay Field Naturalists).
4. Sheppard, R.W., 1977 (?). Our strange voiced cuckoos. Bulletin 113:28 (Niagara Falls Nature Club).

Owls.

1. Allin, A.E., 1952. Food of owls. Flicker 24(2): 92-93.
2. Bodsworth, C. Fred, 1949. The wise old owl is stupid. Maclean's 62 (10): 17, 29-31.
3. Mason, Red, 1969. What happened to the owls this year? TFN Newsletter 244: 23-24, 30.
4. Snyder, L.L., 1947. The Hawks and Owls of Ontario. ROMZ Handbook No. 2.

Barn Owl, Screech Owl, Great Horned Owl.

1. Brereton, L.L., 1949. Notes on the Screech Owl. TFN Newsletter 84: 8.
2. Brunton, D.F., 1969. Feeding habits of nesting Great Horned Owls. Trail and Landscape 3(2): 54-57.
3. Bunker, Ethel, 1959. Elvis, the Happy Nook Owl. TFN Newsletter 164: 7-13.
4. Campbell, W., 1954. An encounter with a Red Fox and two Great Horned Owls. TFN Newsletter 122: 5.
5. Field, M., 1969. The end of old 505-55649. The Cardinal 63: 13.
6. Ivor, Roy, 1950. Notes on the Screech Owl. TFN Newsletter 93: 7-8.
7. Jarman, W.R., 1964. Three young Barn Owls in a basket. The Cardinal 49: 9.
8. Smith, V.P., 1968. Observations on a Great Horned Owl. The Cardinal 62: 7.
9. Speirs, Doris H., 1950. Notes on the Screech Owl. TFN Newsletter 93: 9-10.
10. Speirs, J. Murray, 1961. Courtship of Great Horned Owls. Can. Field Nat. 75(1): 52.

Snowy Owl.

1. Ankney, C. Davison, 1977. Snowy Owl exploits duck hunters. Ont. Field Biologist 31(2): 59.
2. Baillie, J.L., 1928. Some late records of the Snowy Owl in Southern Ontario, Auk 45: 99-100.
3. Catling, Paul M., 1973. Food of Snowy Owls wintering in Southern Ontario with particular reference to the Snowy Owl hazard to aircraft. Ontario Field Biologist 27: 41-45.
4. James, Ross D., 1980. Snowy Owl food in different habitats in the Toronto Region, in the winter of 1945-46. Ont. Field Biologist 34(1): 11-16.
5. Mitchell, Margaret H., 1947. Snowy Owls in Peel County, Ontario. Canadian Field Naturalist 61: 68-69.
6. Quilliam, Helen R., 1965. Winter study of Snowy Owls on Wolfe Island, 1965. Ontario Field Biologist 19: 1-8.
7. Snyder, L.L., 1943. The Snowy Owl migration of 1941-42: a report of the Snowy Owl committee. Wilson Bulletin 55: 8-10.
8. Snyder, L.L., 1947. The Snowy Owl migration of 1945-46. Wil. Bull. 59: 74-78.
9. Snyder, L.L., 1949. The Snowy Owl migration of 1946-47. Wil. Bull. 61: 202.
10. Wallace, Roy, 1955. A call note of a Snowy Owl. TFN Newsletter 130: 5-6.
11. Weir, R.D., 1973. Snowy Owl invasion on Wolfe Island, winter 1971-72. Ontario Field Biologist 27: 3-17.

Short-eared Owl, Long-eared Owl.

1. Banfield, A.W.F., 1947. A study of the winter feeding habits of the Short-eared Owl (*Asio flammeus*) in the Toronto Region. Can. J. Res. 25: 45-65.
2. Banfield, A.W.F., 1947. Winter feeding habits of the Short-eared Owl in the vicinity of Toronto. TFN Newsletter 70: 2-3.
3. Dear, L.S., 1919. Long-eared Owl laying twice in same nest. British Birds 13(1): 30.
4. Judd, W.W., 1960. Long-eared Owls roosting in Trott's Swamp at London, Ont. The Cardinal 36: 1-2.
5. Judd, W.W., 1962. Food of the Long-eared Owl in the Byron Bog. The Cardinal 43: 4.
6. Judd, W.W., 1978. A Long-eared Owl (*Asio otus*) and its food at Carr's Bridge, St. Thomas reservoir, Elgin County, Ontario. Ont. Field Biologist 32(2): 34-36.
7. Smith, D. and A. Gordon, 1946. Breeding history of the Short-eared Owl in the Toronto area. The Intermediate Naturalist 1: 2-4.
8. Speirs, Doris H., 1957. The notes of the Long-eared Owl. Ont. Field Biol. 11: 19-20.
9. Woods, J.G. and Paul M. Catling, 1966. A pellet analysis of wintering Long-eared Owls (*Asio otus*). Ont. Field Biologist 20: 6-9.

Bruce D. Parker

COYOTE WATCHING AT YONGE AND SHEPPARD

One fall day in 1980, I saw an animal running alongside the chain-link fence which bounds the York Cemetery on the east. It was moving in an easy, level, purposeful stride of the sort I'd seen in pictures of wolves or coyotes. The size, shape, colouring, gait, bushy tail and ear-shape all made me think "coyote". As I tried to get a closer look, it crossed the cemetery-road leading out to the main road, and circled back through the cemetery, keeping close to the fence, and setting the neighbourhood dogs to barking. With a smooth, steady pace, so conservative of movement, it covered the ground with remarkable speed. The direction it took would lead it through the cemetery, across Senlac Avenue to a shallow ravine, fairly open and not built up at that time, which eventually opens into Earl Bales Park.

I enjoyed my lunchtime "encounter with the wild", only a few hundred yards from Joseph Shepard's old house (circa 1840) where more than coyotes roamed in his day.

Reta McWhinnie

(See also TFN (341) 29, S 81.)

STRANGE SIGHTINGS

On Tuesday, April 6, 1982, I was birding at Grenadier Pond and saw a snipe. Although it was my first snipe for the spring, earlier sightings had been made. The unusual aspect was watching the snipe feeding. He was probing in an unfrozen area along the shore and came too close to a mallard. The duck sneaked up from behind and promptly goosed the snipe with its beak. This was a scientific first, I'm sure. Nowhere have I encountered in literature any mention of ducks poking snipes. I can see it now in all the field guides: "Mallard: A common duck of small ponds and shorelines. Drake has green head and likes to poke at snipes that come too close." This is only a small sample of some great scientific data that should be recorded for the advancement of mankind.

I have also seen squirrels swimming in the Humber, groundhogs up in trees, stoned blue jays, and wrens fighting like cats, - to mention a few. I'd really appreciate a column for this sort of thing, so that I could send in my unusual sightings. Send all your unusual sightings to the Editorial Committee. Who knows? If there's enough input, we could have a regular column in our newsletter. Please do not make up things; what you actually see is often stranger than fiction.

Roger Powley

Ed. Note:

You've got it, Roger!

Imprints in the asphalt - Maple leaf and raccoon's paw - Modern fossils?
--

haiku by Joy Pocklington

IN THE NEWS

FURTHER NEWS ON THE GYPSY MOTH: The gypsy moth population has dropped sharply this year in New York, New Jersey and Connecticut, forestry officials say. At the time of year when the caterpillars should be at their peak in numbers and in their appetite for green leaves, there is little visible evidence that they are defoliating trees. Last year many trees were severely damaged and some died. The moths have been trapped along the eastern seaboard as far south as Florida with a major outbreak in Pennsylvania. They have also spread through Indiana, Ohio and Illinois, with spot infestations reported in Louisiana, Arkansas, Oregon and in southern California. The gypsy moth's life cycle has four stages - egg, larva or caterpillar, pupa or cocoon, and adult or moth. In early July a freshly fertilized female moth will deposit 50 to 1,000 eggs in a sack the size of a quarter on trees or houses. The eggs lie dormant for about ten months until late April or early May the next year, when they hatch and release tiny larvae. The new caterpillars devour green leaves at an enormous rate - as much as 40 square inches a caterpillar.

- The New York Times, June 27, 1982.

SOME BIRDS MAY HELP CONTROL THE WESTERN SPRUCE BUDWORM: Some northwest birds and animals may limit the populations of an insect that has defoliated millions of acres of forests in Pacific northwest. Dr. Edward O. Garton, an associate professor of wildlife resources at University of Idaho, said some birds such as the evening grosbeak and some mammals play an economically significant role in controlling the western spruce budworm. "Bird predation is sufficient to reduce timber growth losses in stands infested with budworm," said Garton. He estimated that in one research area in the Okanogan National Forest in Washington that resource managers would have to spend about \$3,800 per square mile for aerial insecticide spraying to have the same effect as the evening grosbeak. "Using economic analyses to assess the value of our wildlife resources will lead to more objective management decisions," he said. "By quantifying benefits associated with wildlife species, their significance as members of complex ecosystems may be realized.

The western spruce budworm inhabits about 90 million acres of forestland in the United States, and caused the defoliation of Douglas fir, true firs and spruce on about 1.2 million acres of Idaho forests from 1979 to 1981. Garton and other researchers are gathering information on the grosbeak and other avian predators of budworm at sites in Washington, Idaho, Montana and Oregon.

- Caribou County Sun, Soda Springs, Idaho, May 27, 1982.
(contributed by Doug Svarez)

<p>On the milkweed resting A Monarch, This autumn day.</p>
--

haiku by Christine Hanrahan

BIRD CONSERVATION - New Committee Formed....

The International Council for Bird Protection (ICBP) fills the international conservation role for birds that IUCN (International Union for Conservation of Nature and Natural Resources) fills for everything else. Canada has had an intermittent record of involvement with the ICBP since the 1920's but by the late 1970's the Canadian section had become moribund. After some groundwork a reorganizational meeting was held in May, 1981. It was decided that there were advantages to having the Canadian section of the ICBP as a committee.

Therefore, through the initiative of Eric Tull of the Canadian Nature Federation, the Bird Conservation Committee, as a committee of the CNF, has recently been formed to perform the role of the Canadian section of the ICBP. There are three tasks for a Canadian Committee, (1) to represent Canada and Canadian conservation groups on the international body of ICBP, (2) to engender support within Canada for international bird conservation programmes and (3) to encourage action in Canada on questions of Canadian bird conservation that are of international concern. The Committee will also address itself to preparing, promoting and conducting programmes of bird conservation in Canada.

Already the Committee has expressed concern on the gyrfalcon question in the N.W.T. It has answered inquiries on treatment of oiled seabirds and on the theft of the nest of the Ross' gull, and has had input to ICBP on the international trade in endangered species.

▷ If you feel Canada should be pushing other issues, Eric Tull will be happy to receive your submission. Write him at the CNF, 75 Albert St. Suite 203, Ottawa K1P 6G1.

The announcement about this new committee contains more detail than we have room to print. If you are interested you may see a copy by calling Diana Banville, 690-1963.

Members of the Nature Reserves Committee of the Federation of Ontario Naturalists (FON) are interested in learning about significant, unprotected sites they should take an interest in.

▷ Ross Davidson (TFN member) has agreed to coordinate information from TFN members. Anyone with information or wanting to know more about this project should call Ross Davidson at work (364-1459) or at home (977-2975).

COALITION ON THE NIAGARA ESCARPMENT

CONE has been fighting desperately to prevent the building of housing units in the Beaver Valley, and are in need of financial assistance for lawyers' fees. Donations are tax deductible and may be sent to--

▷ CONE, 355 Lesmill Road, Don Mills, Ontario. M3B 2W8.

Your help will be a small price to pay to prevent the Beaver Valley being turned into suburbia.

CLONES, FUNGI AND WEEDS: A SAMPLE OF BOTANY RESEARCH AT THE UNIVERSITY OF TORONTO
--

An invitation was sent to the TFN to tour the Botany laboratories of the U of T to hear about recent developments in the field of botany research. Mary Smith and Jean Macdonald went as representatives.

Professor Neil Straus discussed "Cloning Plant Genes and the Transformation of Plant Cells". The focus of the work is manipulating plant genes with the long-term goal of improving the cold temperature growth of crop plants by genetic transformation. If the plant can catch and use more light and energy from the sun it would therefore be more resistant to cold. Why not just cross-breed? The plant does not "know" what characteristics we are looking for, and success might be far away. If we could somehow rearrange genes in a plant cell we could develop these characteristics. One of the difficulties is that plants respond in different ways to cold - some genes produce an "anti-freeze" which protects the plant, others simply cause a "shut-down" during cold.

Professor Michele C. Heath and Professor Z. A. Patrick are concerned with "Finding New Ways to Control Plant Diseases". Their specific aim is to discover why some fungi cause diseases in some plant species but not others. Professor Heath and her students are concentrating on rust diseases and they have discovered that a plant resistant to a certain rust has an "anti-disease" reaction - it may produce a toxin, or send reinforcements into the cells to repel the fungus. When they discover what biochemical process generates the resistance, they will be in a better position to devise means to promote this process in non-resistant plants. Professor Patrick is working on a project to control Blue Mold of tobacco. In general this is a specific examination of the survival of the fungus from year to year, and the possible value of systemic fungicides. One interesting discovery is that certain natural micro-organisms in the soil destroy spores - it may be possible to have "biological control" of the fungus. Some may ask, "Why not just do away with tobacco?", but that argument belongs in a different forum.

Professor Spencer C. H. Barrett is conducting research on "Understanding Weeds and Why They Spread". He and his students are attempting to discover why some successful weeds are aggressive, and are concentrating on the Water Hyacinth (Eichhornia crassipes). Oddly enough crassipes is the only species in the genus Eichhornia which behaves as a weed. The reason seems to be a remarkable cloning ability, and ability to inbreed without detrimental effects. The research examines the evolution and genetic basis of self-fertilization in several weeds, since this seems to be an important factor in the evolution of colonizing ability. Work is also going ahead on Barnyard Grass (Echinochloa crus-galli) which mimics rice crops and therefore avoids being weeded out by hand weeding. This grass now infests much of the world's rice acreage. The third weed receiving attention is Turnera ulmifolia. The most widespread types are polyploid, having multiples of the basic chromosome number (5). These forms are highly variable genetically and are unusually variable ecologically and physiologically. The seeds of Turnera are dispersed by ants. The ants protect the plants against insect attacks - a fascinating example of mutualism between plants and animals.

JM

OUTINGS REPORT

FEBRUARY, 1982

The first official outing in February was really an inning. The theme was bird-art and most of the time was spent discussing the work of well-known artists. Diana Banville led the group of six. The following day I led 13 people on a nature walk in High Park. On February the tenth our President had perfect weather (-10C) for an indoor walk. We walked for about an hour without ever going outside looking at many tropical plants and window shopping. Mel Whiteside also helped lead the 18 members through our downtown core. Everyone enjoyed an excellent outing led by Dennis Barry (subbing for Jim Richards) on the 13th. Although the group drove many miles, they observed all the tracks of our common mammals and even got a look at an Oregon Junco, a new Ontario bird for some participants. Fifteen people took part. John Harris led a group to Downsview Dells, where they had a look at a Great Horned Owl, on the 14th. Twelve members found the snow very deep but all enjoyed seeing the large Hemlocks and Black Cherries in the area. Ten birders got up early on the 20th and joined me to see ducks at the waterfront. We saw 2 blue geese and some swans flew right over our heads. On Sunday, the 21st, Jim Woodford visited Glendon Campus with 27 others. They found 90 cedar waxwings and 14 robins, along with many other species, even though it was snowing. On the morning of the 28th it was quite cold and Billie Bridgman's group of 17 was glad to be inside the Etobicoke Greenhouse examining cacti, spring flowers, and palm trees. A short walk later across the road was invigorating but no owls were around. All 40 people who attended the Kortright Centre outing were pleased with the program. Sixteen species of birds were spotted by Rod Martin along with the tracks of deer, rabbits, squirrels, and foxes. The slide show during lunch was excellent. The last outing of the month was a visit to Black Creek with Isabel Smith. The regionally rare cup plant was discovered just north of Eglinton and a red-tailed hawk was perched for us all to see. This is an area which has been neglected in the past and is now a corridor for the 400 extension.

MARCH, 1982

HELEN SMITH - LAMBTON WOODS - MARCH 6 - BIRDS - 18 ATTENDING...

The Humber and several small creeks had open water which increased the bird-observations - 20 species in all. The highlights were Great Horned Owl, American Robin, and Common Merganser. Tracks in the snow were those of Ring-necked Pheasant, Eastern Cottontail, Grey Squirrel, and a possible Red Fox. Several winter weeds were identified, as well as witch-hazel. Birds singing territorial songs were Mourning Dove, Northern Cardinal, and Black-capped Chickadee.

ROGER POWLEY - HIGH PARK - MARCH 7 - NATURE WALK - 30 ATTENDING...

A talk was given on the importance of preserving our native trees in the Park, such as Black Oak. We also discussed plant regeneration by natural and artificial means. An over-wintering Green-winged Teal was seen in the Pond. A lovely sunny day for a walk in the park.

EILEEN CHOPPING - NORTH YORK GREENHOUSES - MARCH 10 - 21 ATTENDING...

The greenhouse was like a breath of spring, with all the beautiful blooms after the long winter. The manager was very helpful and delighted to show us behind the scenes - millions of seedlings, some being transplanted into flats, ready for the outdoors when weather permits. Lemon and fig trees were in fruit. Afterwards, twelve people walked along Yonge (past a row of trimmed sycamores) to Gibson House, where we sampled the home-made cooking.

MARY CUMMING - ALLAN GARDENS - SKETCHING - MARCH 13 - 5 ATTENDING...

In the first room on the south side we found large-size tulips of various colours; it was comfortable to sit in this cool room to sketch the tulips, hyacinths and daisies, in ink, pencil and pastel. Other spring flowers made the display very colourful to see. We were out of the way of the passing public when sitting on our folding stools, and worked undisturbed.

BOB YUKICH - HUMBER BAY PARK - BIRDS - MARCH 13 - 12 ATTENDING...

Saw 29 species of birds. Highlights were 20 Whistling Swans flying overhead and an Iceland Gull. It was a good day for early spring migrants. The first Killdeer on a TFN outing landed about 10 feet in front of us, a good sign of spring.

JOAN FOOTE - EARL BALES PARK - BIRDS - MARCH 14 - 32 ATTENDING...

It was a pretty wet outing, although everyone seemed to be prepared, wearing rubber boots, etc. Saw two American Robins in sumach bushes in ravine and had an excellent view of the colourful American Kestrel. Trembling aspen was identified.

ERIC AND RUTH LEWIS - LONG POINT - WHISTLING SWANS - MARCH 20 - 44 ATTENDING

We wish to express our gratitude to Emily Hamilton for organizing the outing and for her leadership, especially at St. Williams. A total of 29 species were seen, with approximately 900 Whistling Swans. Most of the area was still ice-covered but "Big Creek" was open; thus we had good observations of ducks from bridge on causeway.

BETH JEFFERSON - MARIE CURTIS PARK - MARCH 21 - WATERFOWL - 6 ATTENDING

We found a dead Horned Grebe on the beach and saw a flock of 15 American Robins feasting on sumach. Found many large owl-pellets in the woodlot with cottontail bones inside. There was a lot of evidence of cottontails in the area and we flushed an American Woodcock. An overwintering Blue Goose was among the 20 species seen.

ROBERT MUMA - INNING - MARCH 24 - MOSSES - 24 ATTENDING

Mr. Muma took everyone into his home to show us his collections of mosses and beautiful paintings. A memorable experience.

HOWARD BATTAE - LESLIE STREET SPIT - MARCH 27 - BIRDS - 17 ATTENDING

The group saw Red-breasted Mergansers, a Short-eared Owl and 21 other kinds of birds. The weather was bad but the group had the pleasure of watching a Red Fox cross one of the small bays on the ice.

MARY SMITH - PROSPECT CEMETERY - MARCH 28 - TREES - 34 ATTENDING

A large Bur Oak and a Cappadocian Maple are among the fine planted trees found here - some of the best in Metro. Certain gardening practices cause damage. Sod blankets tucked in around the bases eventually soften bark and kill trees. Continuously putting fill over the roots of the Bur Oak is an unfortunate way of avoiding a few isolated grave-locations; it is now necessary to remove the fill by hand. Turkey Oak shows forced growth, subsequently cold-damaged; was it fertilized too late? This tree is one of a kind, probably the only one in Ontario - possibly Canada.

- Roger Powley



Flower and Fruit of Jack-in-the-Pulpit

MARY CUMMING

Several sightings of Roger Tory Peterson were reported in April in Toronto - very rare for this area.

News from the Toronto Bird Observatory



MUGG'S ISLAND SPRING MIGRATION-MONITORING, 1982

The Toronto Bird Observatory banding and migration-monitoring station on Mugg's Island was in operation from April 17 to June 5, 1982. The station operated on five days in April, 13 days in May and 2 days in June. A total of 895 birds of 73 species was banded on the Island during the 1982 spring migration. Some of the more unusual of the 114 species of birds which were seen at Mugg's Island this spring were a Hooded Warbler on April 25 and another on May 9, a White-eyed Vireo on May 14 and 15, a Yellow-breasted Chat on May 21, 22 and 23, an Orchard Oriole on May 27 and a Grasshopper Sparrow on May 9.

- Bruce D. Parker

BIRD BANDING AT MUGG'S ISLAND

▶ The Toronto Bird Observatory fall banding programme at Mugg's Island begins on August 1, 1982. Anyone wishing to participate should phone Carol Griffith, 282-5528. Carol is co-ordinating the activities as participants are limited to six per day and must include at least one licensed bander. Come along and find out how different it is to identify birds in the hand rather than in the trees.

BAILLIE BIRDATHON

Bruce Parker conducted the TFN Birdathon from 5.00 p.m., Saturday May 15 to 5.00 p.m., Sunday May 16, entirely within Metro Toronto and the Don River Valley. By visiting the mouth of the Don River (the base of the Eastern Headland and Cherry Beach), Moore Park Ravine, E.T. Seton Park, Sunnybrook Park, Brookbanks Ravine, Moatfield Farms and the G. Ross Lord Reservoir, Bruce was able to identify a total of 113 different species of birds in the twenty-four hour period. The best birds of the Birdathon were a pair of Red Knots at the base of the spit, and the most memorable birds were two Red-headed Woodpeckers on the cottonwoods at Cherry Beach.

Bruce has collected \$615.33, of which 25% goes to the TFN. We will use our portion to print a new and revised Bird Migration Chart for the Toronto Region. If you have not honoured your pledge, please send your cheque payable to Long Point Bird Observatory (Birdathon) to Bruce without delay.

HOW DO YOU DEFINE CONSERVATION?

CONSERVATION: the protection, improvement and use of natural resources according to principles that will assure their highest economic or social benefits from Watershed Plan, Metropolitan Toronto and Region Conservation Authority, Dec. 1980.

CONSERVATION is man's attempt to live in harmony with his surroundings.
from The Appalachians by Maurice Brooks, Houghton Mifflin Co., Boston, 1965.

LIVE AND LEARN

SATURDAY AFTERNOONS AT THE ARBORETUM--Clive and Joy Goodwin
September 11 and 25, 2.00-4.30 p.m.

Humber Arboretum, 675-3111, Ext. 445

FALL WEEKEND AT PRESQU'ILE PARK--Clive and Joy Goodwin

September 18-19

Seneca College, 491-5050, Ext. 694

BIRDWATCHING IN FALL--Beginner's Birding Courses--Clive and Joy Goodwin; 4 classroom sessions and two field trips.

Seneca College, King Campus, commencing September 28,
7.30 p.m. 491-5050, Ext. 694.

Seneca College, Lawrence Campus, commencing September 29,
7.30 p.m. 491-5050, Ext. 694.

Civic Garden Centre, commencing September 30, 2.00 and
7.30 p.m. 445-1552

BIRD STUDY I--Rosemary Gaymer; 12 weeks and 2 field trips.

Sheridan College, Oakville Campus, commencing September 22,

7.30 p.m. This will be the first semester of the newly designed and expanded course, and will provide an introduction to birdwatching and to the study of birds in general. The second semester will begin in January 1983. 845-9430, Oakville; 823-9730, Clarkson; 632-7081, Burlington.

EDIBLE AND POISONOUS MUSHROOMS--J. Krug *

10 weeks commencing September 13, 7.00-9.30 p.m.

BOTANICAL DRAWING AND INTRODUCTION TO WATERCOLOUR--H. Moelchert *

12 weeks, commencing September 20, 7.00-9.30 p.m.

BOTANICAL WATERCOLOUR--H. Moelchert *

12 weeks, September 22, 7.00-10.00 p.m.

NATURAL SCIENCE ILLUSTRATION--C. Godkin *

10 weeks commencing October 5, 7.00-9.30 p.m.

WILDLIFE PAINTING AND DRAWING--G. Low *

10 weeks, commencing October 5, 7.00-9.30 p.m.

CRYSTALS, MINERALS AND ROCKS--D. H. Gorman *

10 weeks commencing October 7, 7.00-9.00 p.m.

FUNGI AND MAN--IN PEACE AND WAR--J. Morgan-Jones *

10 weeks commencing October 5, 7.00-9.00 p.m.

* School of Continuing Studies, University of Toronto,
158 St. George Street, Toronto. M5S 2V8. 978-2400.

Clive and Joy Goodwin are tentatively planning trips to Florida in February and Holland/England in late May. If you're interested in such a trip, give the Goodwins a call at 249-9503.

The TFN has made its third half-hour television show with Rogers Cable TV (Cable 10) in East York. If you would like to see the show (entitled "The Toronto Field Naturalists"), call Rogers Cable -- East York 752-8822, Mobile 445-9811, Downtown 864-2226, North York 446-6573.

COMING EVENTS

COMING EVENTS

Civic Garden Centre

The following courses will be offered at the Civic Garden Centre, 777 Lawrence Avenue East, at Leslie. Further details may be obtained by calling 445-1552.

Botanical Art--commencing September 27, 10.00 a.m. to 2.00 p.m.; 6 weeks.

Bird Watching in Fall--commencing September 30, 2.00 p.m. and 7.30 p.m.; 4 weeks.

Royal Ontario Museum

The following lecture series will be offered by the ROM:

The Theory of Evolution: Past, Present and Future--commencing September 22, 7.30 p.m.; 6 weeks; ROM Theatre. For information call 978-4514.

Introduction to Astronomy--commencing September 27, 7.00 p.m.; 9 weeks; McLaughlin Planetarium Lecture Room. For information call 978-8550.

Metropolitan Toronto and Region Conservation Authority

The following activities will be held at the Kortright Centre for Conservation, Pine Valley Drive, just south of Kleinburg. Telephone 661-6600 for further information.

Bee Space Program--demonstrations of bee-keeping equipment, September 18 and 25.

Honey Festival--demonstrations of bee-keeping equipment, films, crafts, September 5, 12, 19; 10.00 a.m. to 4.00 p.m.

Radio Telemetry Program--Track down raccoons using a directional radio receiver. The raccoons will have been fitted with transmitter collars. September 26, October 3, 10, 17, 10.00 a.m. to 4.00 p.m.

Black Creek Pioneer Village, Jane and Steeles, will be holding its annual Festival September 18.

Ontario Science Centre

As part of the Science Centre's current exhibition on China--7000 years of discovery, you can see silkworms eating mulberry leaves and silk threads being extracted from the cocoons.

The Science Centre is on Don Mills Road, just south of Eglinton. Telephone 429-4100.

VIA Nature Weekend

VIA Rail is sponsoring trips to the Wheels Inn, Chatham, on the weekends of September 10-12 and 24-26. Escorted nature tours by Terry Pratt will be offered to Point Pelee, Rondeau Park, Jack Miner's, Swain's Greenhouses. Call 868-7277 for further information.

Mushroom Display

On Monday, September 20, the Mycological Society of Toronto will be having a mushroom display from 1.00 at the Civic Garden Centre, 777 Lawrence Avenue East, at Leslie. The exhibit will show the results of a weekend fungi foray. Admission free.



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Material for the newsletter (notices, reports, articles up to 1500 words in length and illustrations) should be submitted at least six weeks before the month in which the event is to take place or the material is required to appear.

MEMBERSHIP FEES:	Family (Husband and Wife) -	\$20.00
	Single -	\$15.00
	Senior Family (Husband and Wife, 65+) -	\$15.00
	Senior Single -	\$10.00
	Student -	\$10.00

Send to: 83 Joicey Blvd., Toronto, Ontario M5M 2T4 (488-7304)

All TFN Publications are for sale at monthly General Meetings.