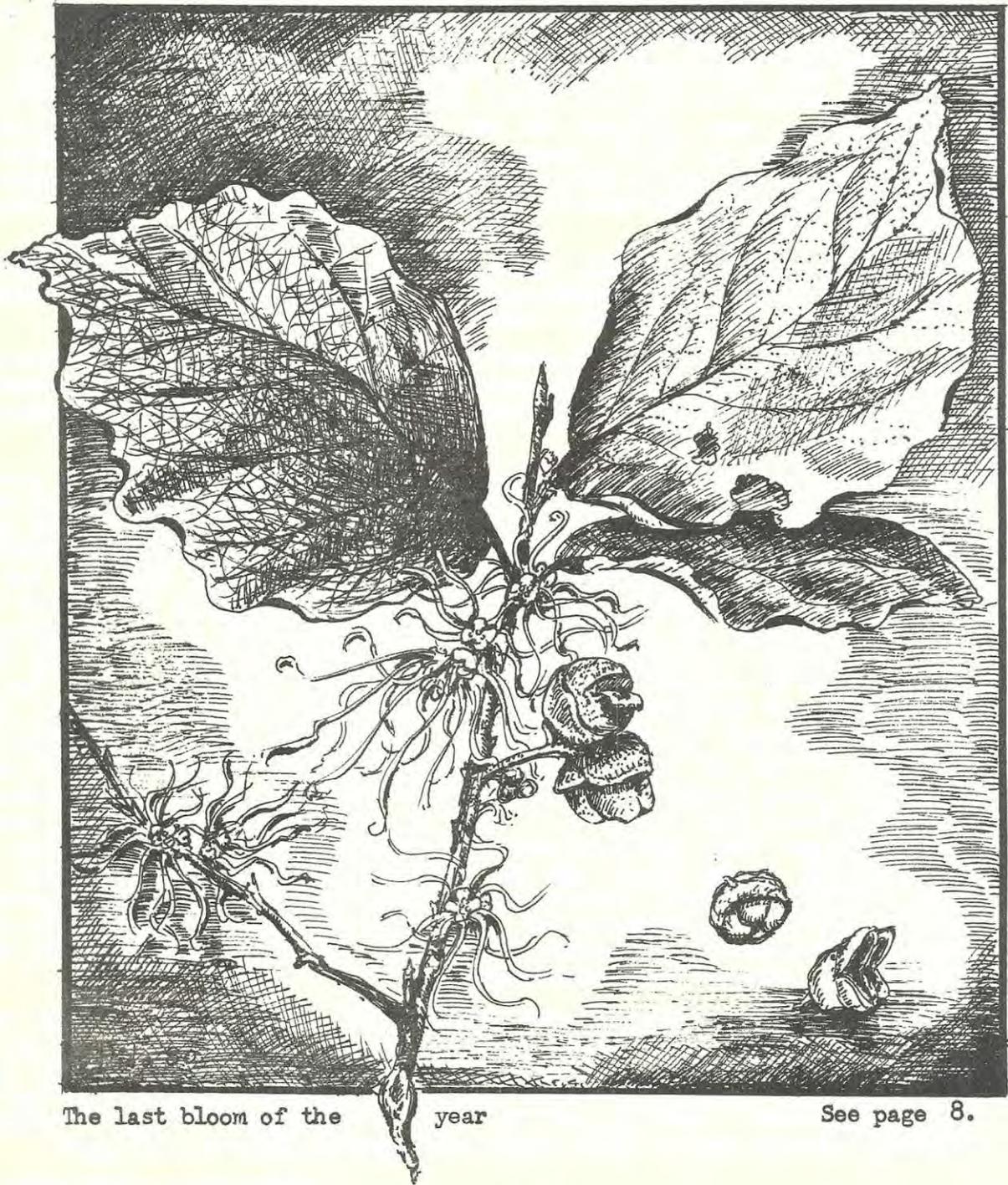




TORONTO FIELD NATURALIST

Number 335, November, 1980



The last bloom of the year

See page 8.

MEMBERSHIP INFORMATION

&

PUBLICATION SALES

83 Joicey Blvd., Toronto, Ont., M5M 2T4
or call: 488-7304

President's Report

After much thought and discussion the Board of Directors has decided to change the financial year-end of the Toronto Field Naturalists to correspond with our activities (meetings, Audubon Film Series, and newsletters) and their expenses which run from September to May. On pages 6 and 7 is the financial statement for TFN as at June 30, 1980 prepared by Wally Platts, our treasurer, typed by Alison Knauf (who has also typed a number of other reports and letters for TFN), and audited by Al Kennedy, our auditor. The new year-end gives the treasurer and auditor the summer to prepare the financial statements so that we should know just where we stand financially at the beginning of each season. This also means that the next annual general meeting will be held in September 1981. This, I hope, explains why you were all asked in May, 1980, to pay your memberships for the 1980-81 season, and why final notices were sent with the September newsletters to those who had not paid by August 1. We welcome new members at any time and anyone joining after March 1 is enrolled for the following season.

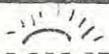
I am pleased to announce that the Board of Directors has a new secretary who volunteered after the September meeting. Agnes Klassen has already taken and typed a set of minutes for us. Thank you Agnes.

In giving credit to those who worked on the TFN display at the CNE in my last report I omitted the name of Margaret Briggs who along with Jean Macdonald created our prize-winning banner which we hope to be able to use at many displays. Sorry Margaret.

In pursuing our primary purpose which is "to acquire and disseminate knowledge of natural history", TFN has been sponsoring the Audubon Wildlife Film Series in Toronto since 1946. To quote from Dr. R.M. Saunder's Toronto Field Naturalists Club: its history and constitution: "... beginning in the season of 1946, a very important new development occurred when the Royal Canadian Institute and the Toronto Field Naturalist's Club joined together in bringing the Audubon Screen Tours to Toronto. The holding of these fine movie-talks in Eaton Auditorium made it possible to reach the largest public audiences the naturalists have ever enjoyed in Toronto. ... There can be no doubt that this project has been one of the most successful undertaken by this club for the furtherance of interest in nature in this community". Although the movies are now shown in the OISE theatre and do not reach as large an audience, they are still enjoyed by a great many people who appreciate an evening out with an opportunity to meet the film makers in person — which is something that television cannot offer. So how about giving a subscription to the Audubon Wildlife Film series to a friend? Better still, buy two subscriptions, use one for yourself and take a different friend to each movie. That way you will be learning more natural history and revealing the delights of our favourite subject to someone else. This season all the work of bringing this program to Toronto is being done by Fred Barrett and Jack Gingrich.

Today white-throated sparrows are clicking and warblers are peeping as they hurry past my windows on their way south. Leaves rustle and the air has a mushroomy smell, and every person who passes picks up a shiny, smooth, brown horse-chestnut, its prickly outer covering removed by passing cars. The season is changing fast. What does one do with the non-migrating fauna — flies, spiders, and who else — that invade our homes at this time of year?

Helen Juhola (924-5806)
112-51 Alexander St.
Toronto, Ont. M4Y 1B3

	Upcoming OUTINGS	TFN 
RAIN <small>6.11</small>	or  SHINE	Everybody Welcome!

Saturday GRENADE POND AND SUNNYSIDE - Birds, Insects
 Nov. 1 Leader: Roger Powley
 8.30 a.m. Meet outside the Keele subway station.

Wednesday MOORE PARK RAVINE - Nature Walk
 Nov. 5 Leader: Mary Suddon
 10.00 a.m. Meet at the ravine entrance just east of Welland on Moore Avenue.
 (South Leaside #88 or #88A bus from St. Clair subway station.)
 Cars. Go east from Moore and Mt. Pleasant or west from Bayview
 and Moore. Parking is usually possible at the roadside.

Saturday BIRDING FOR "RANK" BEGINNERS
 Nov. 8 Leader: Wally Platts
 9.30 a.m. Meet in the lobby of 111 St. Clair Avenue West (east of Avenue Road).
 Walk west from St. Clair subway station or take #512 (St. Clair)
 street car and get off at Avenue Road. After a brief lecture the
 group will walk about 2 miles, dipping into Nordheimer Ravine, and
 ending up at St. Clair West subway station.
 This walk is for genuine beginners who are not sure whether
 that black bird is a starling or a crow and are afraid to ask.

Wednesday WILKET CREEK PARK - Skywatch
 Nov. 12 Leader: Cathy Drake
 8.00 p.m. Meet in the first parking lot inside the entrance off Leslie Street
 just north of Eglinton Avenue East. (Leslie #51 bus or Lawrence East
 #54 bus from Eglinton subway station.) Get off at the first stop
 immediately after the turn on to Leslie. If you find crossing Leslie
 difficult you could use an Eglinton East #34 bus from Eglinton
 subway station to Leslie. Cross the difficult T-intersection with
 the lights.

Saturday TAYLOR CREEK (EAST DON) - Nature Walk
 Nov. 15 Leaders: Steve Varga and others
 10.00 a.m. Meet in the supermarket parking lot at Woodbine and O'Connor.
 (Either Woodbine #91 bus from Woodbine subway station, or O'Connor
 #70 bus between Coxwell and Warden subway stations.) This will be
 a low key walk to discover what nature offers in mid-November.
 Leaders will be on hand to offer help and answer questions on
 various topics.

Wednesday SHERWOOD PARK - Nature Walk
 Nov. 19 Leader: Emily Hamilton
 10.00 a.m. Meet at the park entrance. (Take Nortown Eastbound #61 trolley from
 Eglinton subway station. Bus turns north on Mount Pleasant Road.
 Get off at Sherwood and walk east one block to park entrance.)

UPCOMING OUTINGS - Continued

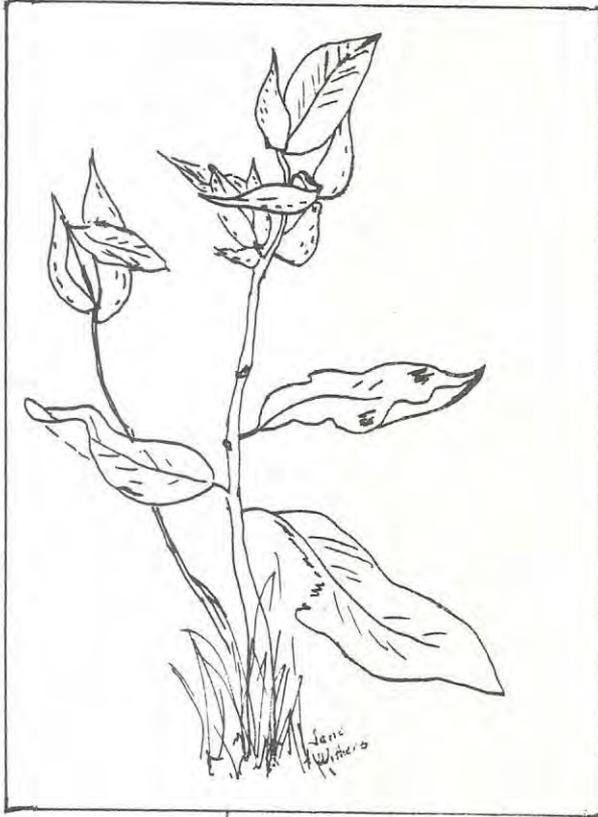
- Saturday LESLIE STREET SPIT - Winter Waterfowl
 Nov. 22 Leader: Steven Price
 10.00 a.m. Meet in the parking area just inside the gates at the south end of Leslie Street. (#501 (Queen) car to Leslie, walk south about $\frac{1}{2}$ mile.)
- Sunday VALE OF AVOCA - Nature Walk
 Nov. 30 Leader: Helen Juhola
 2.00 p.m. Meet on the south side of St. Clair Avenue, east of Yonge, at Avoca (first street east of St. Clair subway station). Walk will end on Moore Avenue at Moore Park Ravine, just east of Welland. You can catch a South Leaside #88 or #88A bus here to go home.
- Wednesday TODMORDEN MILLS - Nature Walk and Christmas Festivities
 Dec. 3 Leader: Mel Whiteside
 10.00 a.m. Meet at Todmorden Mills sign. (Broadview #8 bus from Broadview subway station, or Mortimer #62 bus between Broadview and Main subway stations. Get off at Mortimer and Broadview and walk down Pottery Road.)
Cars. Enter the side from Pottery Road at the Todmorden Mills sign and continue on to the parking lot. Walk back. (Reach Pottery Road via Broadview or from the Bayview Extension.)

Changes to the street car numbers. 511 is Bathurst. 512 is St. Clair

<p>Nature Art Show</p> <p>Paintings by Paul Harpley will be on display from the evening of November 28 to the afternoon of December 6, at the Christel Gallery of Fine Arts, Parkway Plaza, Victoria Park and Ellesmere.</p>
--

HAVE YOU A PET PROJECT?

If you are trying to organize a volunteer naturalists' project, you may well attract some participants by publishing it in the 1981 Edition of the Directory to Co-Operative Naturalists' Projects in Ontario which is now being compiled by the Long Point Bird Observatory. Non-bird projects are particularly invited. As well as the popular bird-count and bird-census projects and other bird studies, county plant checklists and inventories of natural areas are being published and the compilers would like to widen the range of subjects still further. Some of the project descriptions will also be published in Seasons, the FON magazine. If interested, write David J. T. Hussell, Editor, Directory to Co-Operative Naturalists' Projects, Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ont. NOE 1M0, and ask for a project description form.



TFN
NATURE ART
GROUP

Three concepts of
Common Milkweed
Sept. 8, 1979

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, 1980 and the income statement for the four months 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.

Memberships, 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, 1980 and the results of its operations for the four months then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.



ALISTAIR J. KENNEDY
Chartered Accountant

TORONTO, CANADA
September 10, 1980

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

BALANCE SHEET
as at June 30, 1980

	ASSETS	
	June 30 1980	Feb. 29 1980
Current Assets		
Cash - for general club purposes	\$ 9,492	\$ 11,666
Accounts Receivable	211	703
Accrued Interest	275	400
Short Term Investments	2,500	2,500
Inventory - at cost (Note 2)	2,136	4,178
	<u>14,614</u>	<u>19,447</u>
Other Assets (Note 1)		
Restricted for J. Baillie Reserve - Cash	8,104	7,794
- Investment	5,500	5,500
- Accrued Interest	300	-
	<u>13,904</u>	<u>13,294</u>
Property and Equipment		
Land	42,770	42,770
Building	3,050	
Less Accumulated Depreciation	<u>700</u>	<u>2,400</u>
	<u>45,120</u>	<u>45,170</u>
Total Assets	\$ 73,638	\$ 77,911
	LIABILITIES AND EQUITY	
Current Liabilities		
Accounts Payable	\$ 1,094	\$ 2,852
Membership Fees received in advance	4,108	-
Unexpired Subscriptions	1,424	938
	<u>6,626</u>	<u>3,790</u>
EQUITY		
Reserve for future expenditures re J. Baillie Reserve (Note 1)	13,904	13,294
Retained Earnings		
Balance at beginning of year	60,827	57,776
Income (loss) for period	(7,719)	3,051
	<u>53,108</u>	<u>60,827</u>
	<u>67,012</u>	<u>74,121</u>
Total Liabilities and Equity	\$ 73,638	\$ 77,911
Working Capital: Dollars	\$ 7,988	\$ 15,657
Ratio:	2.21	5.13

APPROVED ON BEHALF OF THE BOARD

Jelen Ann Judd

(Director)

Brian W Gray

(Director)

The attached notes are an integral part of these financial statements

TORONTO FIELD NATURALISTS
COMPARATIVE INCOME STATEMENT
For the 4 months ended June 30, 1980

REVENUE	4 months June 30 1980	Year June 30 1980	Year Feb. 29 1980	Year Feb. 29 1979
Membership Fees	\$ -	\$ 13,449	\$ 13,449	\$ 12,120
Income earning programmes:				
Audubon Wild Life Films	-	1,082	1,092	1,130
Publications	133	478	459	68
Outings	237	237	(37)	(1,724)
	<u>370</u>	<u>15,246</u>	<u>14,963</u>	<u>11,594</u>
EXPENSES				
Subsidized programmes:				
Ontario Field Biologist publications	2,192	2,256	(131)	38
Meetings expenses	598	1,451	1,257	1,376
Newsletters, printing and mailing	2,593	8,636	8,059	6,428
Other printing expense	115	115	586	109
Other mailing expense	133	339	360	348
Honoraria	410	980	1,282	1,762
Advertising and publicity	779	779	303	91
Donations and affiliation fees	1,010	1,010	765	685
Legal	-	-	-	90
Liability insurance	535	535	-	-
Office Supplies	20	96	142	237
Telephone	83	249	249	234
Ravine Preservation - O.M.B. costs	-	-	-	373
	<u>8,468</u>	<u>16,446</u>	<u>12,872</u>	<u>11,771</u>
Operating Income (loss)	(8,098)	(1,200)	2,091	(177)
Interest Income	429	1,052	825	570
Cash Flow (loss)	(7,669)	(148)	2,916	393
Depreciation	50	200	200	200
Net Income (loss) before donations	(7,719)	(348)	2,716	193
Donations	-	346	335	621
Net Income (loss)	<u>\$ (7,719)</u>	<u>\$ (2)</u>	<u>\$ 3,051</u>	<u>\$ 814</u>

The attached notes are an integral part of these financial statements

TORONTO FIELD NATURALISTS
NOTES TO FINANCIAL STATEMENTS
as at June 30, 1980

NOTE 1 - ACCOUNTING 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 (insurance, taxes, maintenance, etc.,) of the Reserve.

NOTE 2 - INVENTORY

A Wintario Grant of \$2,870 was received in 1978/9 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 \$1,321 at June 30, 1980, and this amount is included in Inventory.

NOTE 3 - YEAR END

The fiscal year end has been changed from February 29 to June 30 to more closely parallel the activity year of the Toronto Field Naturalists.

ENVIRONMENTAL GROUP REPORT

At the September 18th meeting, we discussed progress with the ESA Program and made plans for fall and winter activities. The primary objective of the ESA Program is to pursue and promote the study and protection of environmentally significant natural areas in Metro Toronto. This will be achieved by:

- (i) the preparation of a preliminary, but comprehensive, summary of Metro's ESAs, their significant natural features and recommendations for their protection (by some time in 1982, we hope) and
- (ii) promoting these recommendations by working closely with politicians, ratepayers' associations and government staff.

A preliminary list of candidate ESAs has been prepared by Steve Varga; Ralph Baehre (633-2841) is coordinating a review of literature and data available on these areas. If you would like some background information on conducting ESA studies, you might like to refer to the following:

- Barrett, S. (ed.) 1980. The Protection of Natural Areas in Ontario Conference Proceedings. Faculty of Environmental Studies, York University;
- Eagles, P. G., and Adindu, G. 1978. A Manual for Environmentally Sensitive Area Planning and Management. University of Waterloo, Faculty of Environmental Studies, 2nd ed., 116 pp.
- Hilts, S.G., and Parker, M. (eds.) 1980. Environmentally Significant Areas of Southern Bruce County. Walkerton, Ontario: Saugeen Field Naturalists; and Centre for Resources Development, University of Guelph, 229 pp.
- Kirk, M., 1978. Techniques for the Preservation of Natural Areas. Guelph, Ontario: Outdoor Art & Science School, 38 pp.

At Environmental Group meetings, 1980-81, there will be guest speakers discussing topics of interest to the ESA program, as well as opportunities for TFN members to become involved with specific projects. We hope you will join us.

Suzanne Barrett (537-9056)
(667-3012)

THIS MONTH'S COVER

The yellow flowers of witch-hazel (Hamamelis virginiana), blooming at eye-level, often linger on to cheer the sombre November scene. Look for this large shrub (the only representative of its family in our area) in its favourite ravine habitats, in Sherwood Park, High Park and here and there in the valleys of the Humber and the Don. Along with the flowers, you will see the maturing fruit from last year still adhering and perhaps even the empty woody pod of the year-before-last - after having ejected its two seeds. Even the lop-sided leaf is interesting. The name "witch-hazel" was inspired by the former use of its forked twig for divining water sources, the fruit superficially resembling a hazel-nut.

TORONTO REGION BIRD RECORDS, SEPTEMBER, 1980

Red-throated Loon	2	Aug. 27	off Cranberry Marsh	Bruce White
Black-crowned Night Heron	10	Sept. 7	Toronto Islands	Herb Elliott*
Brant	13	May 25	Weston	Ron Scovell
Northern Shoveler		Sept. 7	Toronto Islands	Herb Elliott*
Redhead		Aug. 23	Eastern Headland	Brian Gibson
Lesser Scaup		Sept. 8	Mimico	Roger Powley
Common Goldeneye		Sept. 1	Whitby harbour	Brian Gibson
Bufflehead		Sept. 7	Cranberry Marsh	TOC Outing
		Sept. 8	Mimico	Roger Powley
Oldsquaw		Sept. 7	Toronto Islands	Herb Elliott*
		Sept. 7	Eastern Headland	Brian Gibson
White-winged Scoter		Sept. 7	Eastern Headland	Brian Gibson
Black Scoter		Sept. 7	Pickering	TOC Outing
Harlequin Duck		Sept. 7	off Cranberry Marsh	TOC Outing
Ruddy Duck		Sept. 7	Cranberry Marsh	TOC Outing
Hooded Merganser		Sept. 7	Toronto Island	Herb Elliott*
Cooper's Hawk		Sept. 3	Mimico Creek	Reg. Smith, R. Powley
Red-shouldered Hawk		Aug. 23	Scarborough	Brian Gibson
Broad-winged Hawk		Aug. 9	Toronto Islands	TBO
Bald Eagle	(adult)	Sept. 7	Pickering	TOC Outing
Marsh Hawk	7	Sept. 7	Toronto Islands	Herb Elliott*
Peregrine Falcon		Sept. 7	Ajax	R. Nisbet
Black-bellied Plover	2	Sept. 10	Woodbine Beach	Roger Powley
Red Knot	3	Aug. 31	Eastern Headland	Brian Gibson
	2	Sept. 10	Woodbine Beach	Laura Greer*
Baird's Sandpiper		Sept. 1	Whitby	Brian Gibson
	6	Sept. 7	Eastern Headland	Brian Gibson
Western Sandpiper		Aug. 31	Eastern Headland	Brian Gibson
Stilt Sandpiper	3	July 27	Whitby	Murray Speirs
		Sept. 21	Frenchman's Bay	Brian Gibson
Short-billed Dowitcher	7	Aug. 31	Eastern Headland	Brian Gibson
Hudsonian Godwit		Sept. 7	Corner Marsh	TOC Outing
Wilson's Phalarope		Sept. 7	Eastern Headland	Brian Gibson
Glaucous Gull		Sept. 21	Frenchman's Bay	Brian Gibson
Yellow-billed Cuckoo		Aug. 4, 6, 8	Pickering	Murray Speirs
Whip-poor-will		Aug. 20	Toronto Islands	TBO
Red-headed Woodpecker		Sept. 7	Toronto Islands	Herb Elliott*
Olive-sided Flycatcher		Aug. 5, 9	Toronto Islands	TBO
Blue Jay	700	Sept. 22	Scarborough	Brian Gibson
Gray-cheeked Thrush		Sept. 7	Toronto Islands	R. Powley
Blue-gray Gnatcatcher		Sept. 7	Corbett Creek	TOC Outing
Ruby-crowned Kinglet		Sept. 7	Toronto Islands	Herb Elliott*
Loggerhead Shrike		Aug. 17	Squire's Beach	Bruce White
		Aug. 23	Mimico	Clive Goodwin
Golden-winged Warbler		Aug. 16, 17	Toronto Islands (banded)	TBO
Orange-crowned Warbler		Sept. 10	Woodbine Beach	Roger Powley
Pine Warbler		Sept. 3	Scarborough	Brian Gibson
Hooded Warbler		Sept. 6	Pickering Twp.	Murray Speirs
Connecticut Warbler		Sept. 6	Toronto Islands	TBO
Purple Finch (feeding young)		July 18	Pickering	Murray Speirs
House Finch		Aug. 30	Willowdale	Bruce Parker
Dark-eyed Junco		Sept. 7	Pickering	TOC Outing

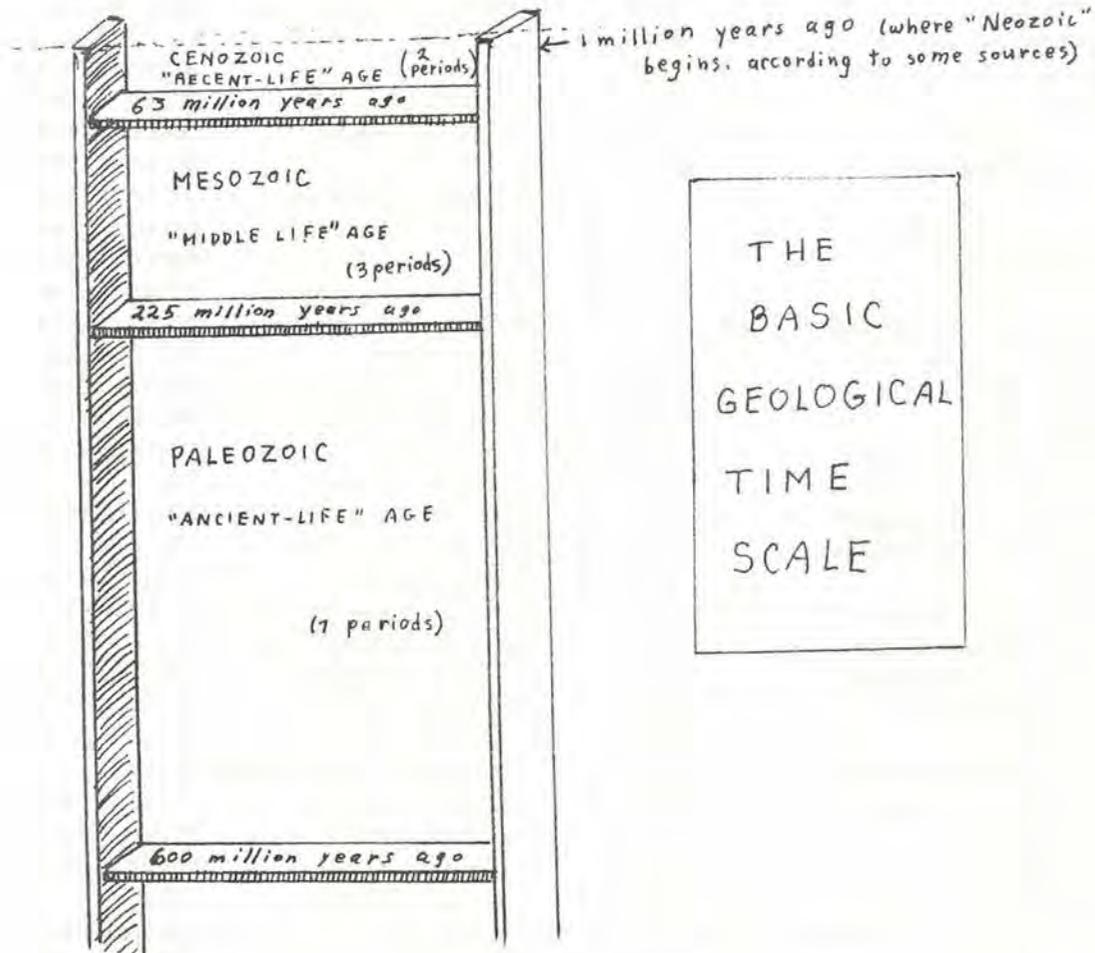
*TFN Outing TOC = Toronto Ornithological Club; TBO = Toronto Bird Observatory

Toronto Region Bird Records - continued

The following were omitted from previous reports; all are earlier than previously reported records:

Osprey	April 14	Cranberry Marsh	Linda Nickerson
Common Gallinule	2 April 26	Cranberry Marsh	Stephen Head, L. Nickerson
Virginia Rail	May 6	Cranberry Marsh	S. Head
Solitary Sandpiper	May 7	Cranberry Marsh	S. Head, L. Nickerson
Gray Catbird	May 7	Cranberry Marsh	S. Head, L. Nickerson
Bobolink	May 5	near Toronto Inter-national Airport	S. Head

Everyone is invited to contribute his/her observations of birds in the Toronto Region. Please send your reports to Bruce D. Parker, TH 66, 109 Valley Woods Road, Don Mills M3A 2R8, or phone: 449-0994.



"SCALING THE DEPTHS"Geologic Time-scale Terms
- Part I

Often when I'm reading a book on botany, birds or other animals, I come across a sentence such as - "This species dates back to the Upper Oligocene." My reaction is to lapse into sarcasm, murmuring, "Oh, yes, the Upper Oligocene; I remember it well. Now the LOWER Oligocene - that was before my time." So many popular books include tables of geologic time, but even after studying them, when I again come across one of the terms, it is still inclined to leave in my mind only the vaguest of impressions - something in the order of "yea, those eons past". I've started to ask myself if associating each term with some familiar word could be a memory aid.

As you know, the forms of life of the past are dated largely through means of the estimated age of the strata of rock in which the fossils are found. At one time the major strata (corresponding to the "eras") were called THE PRIMARY, THE SECONDARY, THE TERTIARY and THE QUATERNARY - all very straightforward words. Long since, the first two terms appear to have fallen into disuse; they are not usually found in new tables of geologic time; yet one may come across a term such as "secondary rocks", especially in older books, many of which have great research value still...But now let's go down the time-scale.

THE NEOZOIC ERA could be called the first rung - though it's usually missing as this is an apparently new term, not generally in use; yet you may encounter it. We're familiar with "neo" (from Greek "neos" meaning "new") and with "zoic" (from Greek "zoe" meaning "life"). The NEW-LIFE AGE is, therefore, an easy one to remember. It applies to the last million years or so with evolving Man. The eras are divided into "periods" (or "systems"). The "Neozoic" would have but one period, THE QUATERNARY.

THE CENOZOIC ERA, however, is the one found at the top of most tables - originally spelled "Cainozoic". (The Greek "kainos" means "recent"; it's easy to associate "ceno" with the second syllable of the word "re-cent", though it's doubtful if that is the correct root.) The RECENT-LIFE AGE is split, by most scientists, into two periods. The term TERTIARY is retained for the name of one of them and the later QUATERNARY is usually included as well. The Cenozoic dates from about 63 million years ago with mammals dominating and modern birds evolving.

THE MESOZOIC ERA, at the next step down, corresponds to the "secondary strata". (The Greek "mesos" for "middle" brings to mind "mezzo soprano".) Extending from about 63 million to 225 million years ago, this MIDDLE-LIFE AGE is divided into three periods which we'll go into in a later article. In this time reptiles dominated and primitive birds and mammals evolved.

THE PALEOZOIC ERA, still further down, corresponds to the "primary strata". We are used to the prefix "paleo" (from Greek "palaios" meaning "ancient"). Extending from about 225 million to 600 million years ago (give or take 20 to 50 million years) this ANCIENT-LIFE AGE is divided into seven periods during which invertebrates, primitive fishes, amphibians and earliest reptiles were evolving.

These are the eras most commonly encountered in reading - because familiar forms of life originated within them. Yet they represent only fifteen per cent of the Earth's history.

Diana Banville

(We are grateful to Dr. S. B. Lumbers, curator of Geology, ROM, for reading and correcting this article.)

OUTINGS REPORT

SEPTEMBER, 1980

Six outings, from September 3 to September 17, were attended by 122 members and friends. The weather failed to cooperate for two of the outings which were held in spite of it being "windy with rain" and "rain most of the time".

Observations on birds included "5 Marsh Hawks and several Sharp-shinned Hawks over the islands and 10 more Black-crowned Night Herons", Olive-sided Fly-catcher, Red-headed Woodpecker and Scarlet Tanagers (Sept. 7, H. Elliot). The walk along Woodbine Beach (Sept. 10, Laura Greer) produced a pair of Knots, 2 Semipalmated Plovers, an Orange-crowned Warbler, as well as "a number of small plants (around the bay formed by the Woodbine Park landfill) which are considered rare on Toronto Island and are not known elsewhere in the Toronto district."

The uniqueness of Echo Valley is evident from Emily Hamilton's comments (Sept. 3): "A pleasant walk was spent in examining the trees in Echo Valley Park. Unfortunately the labels on most of the trees have been vandalized so there was some guess-work. Many of the trees are hybrids and some are grafted so that there are two species of hickories on the same trunk. A large Turkish tree-hazel was admired but neither it nor the filberts showed signs of bearing any nuts this year. There were a few fruits on the persimmon, but none on the pawpaw. There is little undergrowth among the trees as it has been grassed, but an unusual umbellifer in fruit was identified as Torilis japonicus - European hedge parsley."

The Guildwood Park now provides an interesting area for outings. On Sept. 17 Charley Crosgrey noted that "Because this 90-acre park had been in private hands for 50 years it is relatively unspoiled. Also for this reason it probably has one of the widest varieties of plants in Metro. ...95 species of plants were observed.."

The following list shows the date, location and leader of each outing with the number of participants in brackets:

Sept. 3	Echo Valley	Emily Hamilton (14)
Sept. 7	Toronto Islands	Herb Elliot (42)
Sept. 10	Woodbine Beach	Laura Greer (27)
Sept. 13	Sunnybrook	Diana Banville (9)
Sept. 14	High Park	Al Valiunas (20)
Sept. 17	Guildwood Park	Charlie Crosgrey (10)

Bruce D. Parker

GRANTS AVAILABLE FOR BIRD PROJECTS

The James L. Baillie Memorial Fund for Bird Research and Preservation invites applications for grants to support projects on Ontario Birds in 1981. Priority will be given to projects which involve volunteer naturalists in research or fieldwork and to applicants who do not have access to other sources of support. Research, distributional surveys, bird counts, publication of local guides to and checklists of birds of the area are only some examples of eligible projects. If interested, obtain application form from Secretary of the Fund c/o Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ont., NOE 1M0. Applications due Dec. 31, 1980. (Donations to the Fund may be sent to same address and are tax deductible.)

A (BIASED) GUIDE TO BEGINNING AN ORNITHOLOGICAL LIBRARY

Over the years I've been asked by many beginning birdwatchers to recommend various field guides and other sources of information on birds. What follows is a listing drawn largely from experience (I was a beginner myself not too long ago and still am far from being an "expert"). There are three basic criteria that a book must meet for inclusion in this list: It must be a useful reference, reasonably priced (most are under \$10) and comprehensible to the non-scientist. The following books should answer 95% of the average Ontario birdwatcher's questions about birds, without putting him or her in the poorhouse. This listing is not an exhaustive one; however, it will get you off on an excellent start, not only on watching birds but thinking about what you've seen. Total cost is about \$90, not bad for a "wealth" of information...

1. A Field Guide to the Birds by Roger Tory Peterson. This is the best field guide for beginners as it clearly points out the essential characteristics which separate one species from another. It's main drawback is that the names (and to a lesser extent the status and distribution) of many species have changed since it was written. However, a new, up-dated edition is scheduled for release this fall. (Get the up-dated version.)
2. Birds of North America by C.S. Robbins et al. What's this? Another field guide!! While I don't want to weaken the case I made above for the Peterson guide, this work does complement it nicely. Since bird species sometimes show a good deal of variation in plumage, it's a good idea to have several artists' impressions. Carrying both guides has helped me identify many confusing individuals over the years. (Golden Press)
3. Birds of Canada by W. E. Godfrey. An excellent reference. Notes on each species include a thorough description, measurements, field marks, habitat, nesting information, range (both worldwide and in Canada), a map of the breeding distribution, information on subspecies and many useful drawings. This book is getting more expensive (\$22 plus) but it's worth it. Should be the first reference book you buy. (Queen's Printer)
4. A Bird Finding Guide to the Toronto Region by C. E. Goodwin. Toronto birders are fortunate to have what I consider one of the best local bird-finding books in North America. It is complete, up-to-date and will give you the information necessary to get to the best birding areas and tell you what to expect. All this and reasonably priced! (TFN publication)
5. Annotated Checklist of the Birds of Ontario by James et al. An inexpensive (\$2.50) summary of the current status of Ontario's birds. Has information on range, extreme dates and nesting status. (Available from ROM.)
6. Watching Birds (An Introduction to Ornithology) by R. F. Pasquier. A fascinating book which will give you some insight into the "how and why" of bird life. Pasquier is able to communicate a great deal of scientific information in an easy, non-technical fashion. Covers such topics as evolution, anatomy, voice, behaviour, migration and bird-study. Now available in an inexpensive paperback edition. The best book of its kind for the amateur. (Houghton Mifflin publishers)

7. Birds, Scientific American. A collection of 25 articles that have been published in Scientific American. Among the best are those concerning flight and behaviour. Under \$10, well put-together.
8. The Life of Birds by J. C. Welty. Last but not least! Once you've absorbed all of the above - or are in need of a good, basic scientific reference - Welty is the book to get. It is a reasonably complete reference to the biology of birds. While somewhat heavy in spots, I much prefer it over similar volumes by Pettingill or Van Tyne and Berger. Get the second edition. Cost is about \$25 but well worth it.
 Publisher: Alfred A. Knopf, New York.

Dave Broughton

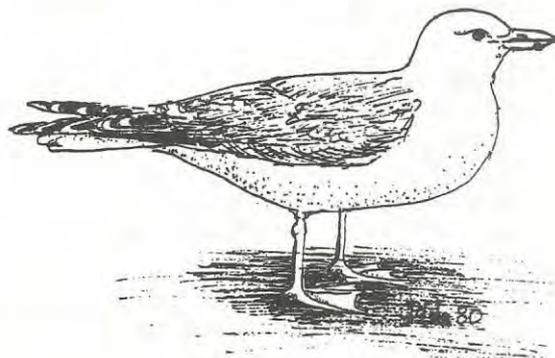
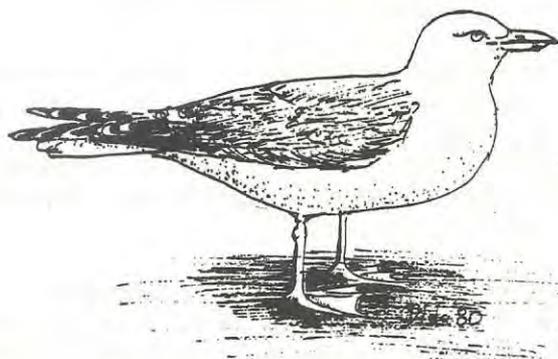
Ed. note:

For in-depth book reviews, see also: TFN #224 Dec./66, pp 8-9 (Godfrey) and TFN #310 Nov./77, pp 7-8 (Pasquier).

If you're so smart...

What's the difference between these two gulls?

See page 16.



NOW AVAILABLE

QUATERNARY GEOLOGY OF TORONTO AND SURROUNDING AREAS - Map No. 2204, compiled 1980. Copies may be obtained at Room 1640, Whitney Block (Parliament Buildings). (\$1.00 plus 7¢ tax)

BIRD-WATCHING IN PANAMA

For a dyed-in-the-wool birdwatcher like myself, the country of Panama is a bit of heaven on earth. Here, in the space of only ten days from April 4 to April 13, 1980, eight of us, very capably led by Dr. Jaime Pujals of Colon, logged an amazing 466 species. To give some idea of the magnitude of this number, my life list for Canada and continental U.S. was only 505 after 30 years of active birding.

We began at Tocumen Marsh, very close to Panama City's airport. This was the only time we were uncomfortably hot on the whole trip; perhaps we were not acclimatized as yet. Of the 135 species in this marsh, highlights were the White-throated Crake (rarely seen) and a nest of the Great Black Hawk with two chicks. In the afternoon, we drove through Panama City and over the bridge at the Pacific entrance to the Canal. We observed many open-water and shore birds in this area.

Day two took us to Pipeline Road, until recently considered the best spot in the world for birding. Unfortunately the land in this area has been turned over to the Panama Government and its end as an original jungle preserve appears nigh. Here we observed magnificent King Vultures, beautiful White Hawks, Golden-collared Manakins (making their firecracker-like noises) and many others. At night we lured the Tropical Screech Owl to our tape recordings and saw the strange Boat-billed Heron, among others. One day we spent 20 hours birding and we must have averaged 16 hours a day in the first few days.

On our third day we travelled to a jungle training centre for the U.S. Army west of Colon and we remained in this area for three days. The number and variety of birds in this area was almost beyond belief. We saw many fine South American species including Little Tinamous and oropendolas which build huge, drooping nests in colonies.

One day we discovered a large army antswarm about 100 feet long. In attendance were about fifteen species of birds which darted in and out to feast on the insects attempting to flee. At night we continued to lure owls to our tapes and finished with seven species in all.

On the fifth day (the final day in the Canal Zone) we observed a large movement of Swainson's Hawks in migration from Argentina to western North America. They travel at 10,000 feet, not pausing to eat, but this day they were forced down by low clouds.

On day six we began travelling west. Remember that the Canal is oriented north-south and that the country is mostly east-west. We travelled to Panama's only poor excuse for a park, called Cerro Campana, but recorded many species in the woodlands which have escaped the squatters' axes.

Next we travelled to some Pacific coast mudflats and arid lowland areas and finally to the Chiriqui highlands in the region of Volcan Baru near the Costa Rica border. Here we found many new species, including the Resplendent Quetzal, considered by many to be the most beautiful bird in the world. This bird is an iridescent turquoise-blue on the head, back and tail, bright red

underneath. It has a majestic six-foot tail (actually the upper-tail-coverts) and a laterally compressed crest. We watched the male and female as they took turns brooding eggs in a hole in a tall stump. At 7000 feet we found three Wattled Bellbirds which gave three tremendous gongs, audible a mile away. We hiked into the beautiful Volcano Lakes to discover our rarest bird, a Southern Lapwing, about 400 miles west of its normal range.

When the lists were finally tallied, we had found 54 species of flycatchers, 33 of tanagers, 31 of raptors, 27 hummingbirds. My own regional list was 431.

Other interesting creatures included two species of Howler Monkeys along with marmosets and capuchins. The last-mentioned were given to hurling dung at us with unnerving accuracy. There were numerous sloths of both types, vampire and fish-eating bats and an agouti. We also found an arrow-poison frog whose tiny body was formerly roasted on the tip of an arrow by the local Indians, to deadly effect.

All in all this was the most arduous but the most enjoyable holiday of my life. Scientific value? Perhaps. We observed a hummingbird courtship not described in the literature. We also found nests which may prove to be the first discovered for the species in question.

Hugh Currie

Recommended Field Guide: A Guide to the Birds of Panama, by Robert Ridgely, published by Princeton University Press.

(All profits from the sale of this field guide are used for preservation of wildlife in Panama.) H.C.

Answer: "If You're So Smart" (page 14)

Note the light (actually yellow) eyes of gull on the left -
the Herring Gull (Larus argentatus).

Note the dark (actually brown) eyes of the gull on the right -
Thayer's Gull (Larus thayeri).

It could be that we have been missing Thayer's Gull because of the seemingly minute distinguishing feature of the dark eyes. At close range, however, eye colour can create quite a distinctive impression in a bird.

This fall and winter look the gulls in the eye and let's see if we can come up with some Thayer's Gull sightings around Toronto. If you see one, call Bruce Parker, 449-0994.

See also: Annotated Checklist of the Birds of Ontario (ROM) and
A Bird Finding Guide to the Toronto Region (TFN)

SKETCHING ON VANCOUVER ISLAND



Travelling the Canadian West this year, I reached Vancouver Island in July and noticed at once the fullness of the vegetation compared to that of the East. Arriving at Port Alberni at the centre of the Island, I found and sketched the

"yellow rose-of-Sharon" (apparently cultivated from some large species of St. John'swort). Further west I noticed the arbutus tree that

sheds its bark, the red elderberries along the winding road, the

sea vetch,

the broad-leaved

fireweed

and salal

(related to winter-green and

creeping

snowberry).

It was a

thrill to

see Steller's

Jay perched

on tree-

branches at

Long Beach

on the west

coast where

grows the

Ocean Spray

or wild

spirea bush.

Off the shore I spotted sea lions playing in the waves. In the cathedral forest, MacMillan Provincial Park, some trees are thirty feet in circumference. Here the tall trees are left in their natural state. In so many mountain areas the forests are logged to the bare ground (shows in above illustration - halfway down outline of slope). Later in Stanley Park in Vancouver I noticed more large trees left in their natural state with new growth around them; it was there, while sketching, that a small squirrel came up and ate a raisin from my hand. On English Bay I noticed many female Red-winged Blackbirds. Swallows made their nests in the eaves at a dairy farm near Port Alberni. Gulls came to Beacon Hill Park in Victoria looking for food. Sitting by the roadside near Chemamus, south of Nanaimo, I enjoyed the blending colours of the meadow plants. The daisies in the foreground made a real challenge to define against a log. Fireweed in a meadow, I was thinking, makes a good flavour in the honey, when bees visit the plant. The lighting on English Bay shoreline changed all the time and every few hours the stones and the algae were revealed when the tide went out.

Mary Cumming

"Yellow
Rose-of-Sharon"
(*Hypericum* sp)
(cultivar)
v



Hedge nettle
(*Stachys ciliata*)



Ocean
Spray →
(*Spiraea
discolor*)

Broad-leaved Fireweed →
(*Epilobium latifolium*)

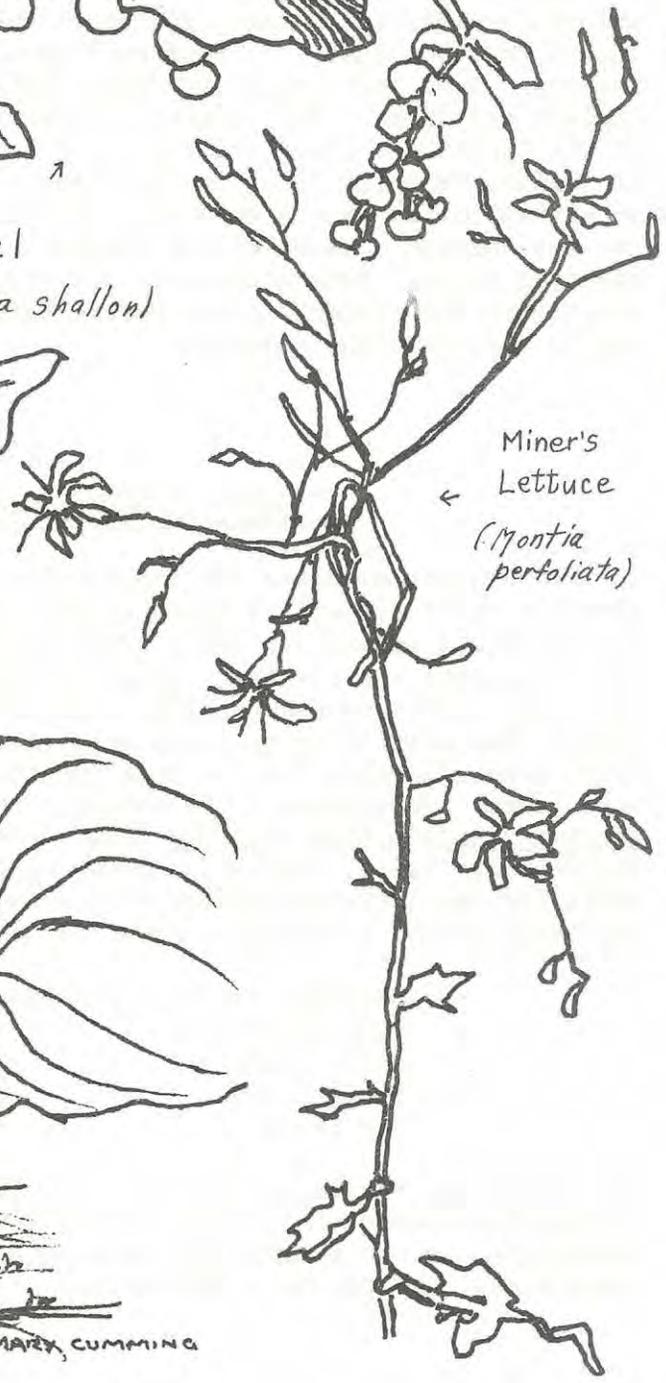


MARY EUMING



↑ Salal
(*Gaultheria shallon*)

Note: All plants depicted are different from our eastern species but have counterparts here.



← Miner's Lettuce
(*Montia perfoliata*)



↑ Wild Lily-of-the-Valley
(*Maianthemum unifolium dilatatum*)

MARY CUMMING

\$27,000 RAISED IN BAILLIE BIRDATHON

The fourth Jim Baillie Memorial Bird Count held throughout Ontario (and elsewhere) last spring raised about \$27,000 to aid bird conservation and research. The main event of the "Birdathon" was held at Long Point on May 2-3. There, about 40 birders recorded 165 species while raising \$16,000. A birdathon works like a walkathon, but the sponsor pledges so much per species identified rather than per mile walked. Bruce Falls was the most heavily sponsored participant, with pledges totalling over \$53 per species. He worked hard over a full 24 hours, even listening for owls, woodcock and whip-poor-wills after dark, and ended the day with 112 species to bring in \$6,000 for the cause. "Birdathons" were also organized at Toronto and other regions. Some individualists chose their own time and place - for example England and Texas! Participating naturalists' clubs share in the proceeds of the birdathons along with the Long Point Bird Observatory and the James L. Baillie Memorial Fund for Bird Research and Preservation; this Fund supported in its grants this year the Owl Rehabilitation Research Foundation in Vineland and a study of the feasibility of producing an atlas of Ontario's breeding birds. Congratulations are extended by David Hussell of the Long Point Bird Observatory to all participants - and to their sponsors for making their success possible.

DEADLINES FOR NEWSLETTER MATERIAL

In the past the deadline for the receipt of material for the newsletter has been the first day of the month prior to the date of issue. Our newsletter is now mailed within two weeks after the first of the month. This means only two weeks for planning, editing, typing, proof-reading, retyping, layout, printing, collating and mailing. We find we need two additional weeks to produce the newsletter, to avoid pressure. As we are dependent on voluntary help, some allowance must be made for time for other activities of the volunteers. We therefore are changing the deadline dates to approximately six weeks before date of issue (four weeks before mailing). In the case of the February issue, this will be two months before date of issue to allow two weeks for the Christmas period when no work will be done on the newsletter. Following is the schedule of deadlines for the balance of the TFN year:

December issue:	deadline	October 15
February issue:	"	December 1
March issue:	"	January 15
April issue:	"	February 13
May issue:	"	March 16

If members who regularly schedule activities will send in their information by the above dates, it will be very helpful. If plans by then are still incomplete, we can publish the telephone number of the organiser so that members may call for more information on the activity in question.

Editorial Committee

} THE BARN SWALLOW }

When potters devised the colour scheme for Crown Derby traditional china, I imagine that they were inspired by the Barn Swallow for it is the same combination of glossy deep blue and rusty orange. These passerines, in the family Hirundinidae, are known as Hirundo rustica. They occur all over Europe, throughout Russia and extend to China and Taiwan. Old World birds winter in Africa, India, and Australia. Our New World races are in most of North America during the summer but winter in most of South America. We are always pleased to see them return in May.

The Barn Swallow is the most elegant of our swallows and has the deepest fork to the tail. The upper parts are a deep, glossy velvet blue; the forehead, chin, and throat are in shades of chestnut and rusty orange, with a blue band at the throat; the under parts are creamy to rufous buff. As is usual, the female bird is less striking.

In the 18th Century Gilbert White in Selborne, England (The Natural History of Selborne) documented the arrival of the swallows each year and assumed that they spent the winter in hibernation. After bird banding commenced and communications improved, it became general knowledge that they migrated south where the food supply (insects) is better in winter.

In May when I visit Point Pelee, Gus Yaki is calling out sightings of rare species, but I can't take my eyes off the Barn Swallows, so I miss all the rare ones and my list remains pitiably low. The swallows fascinate me. They skim over the water in fantastic flight patterns, taking a drink on the wing, catching insects, keeping up a musical twitter. Then they perch in pairs in the sunshine, giving their feathers a good preening. Later they go house-hunting and meticulously inspect the local structures for a suitable ledge.

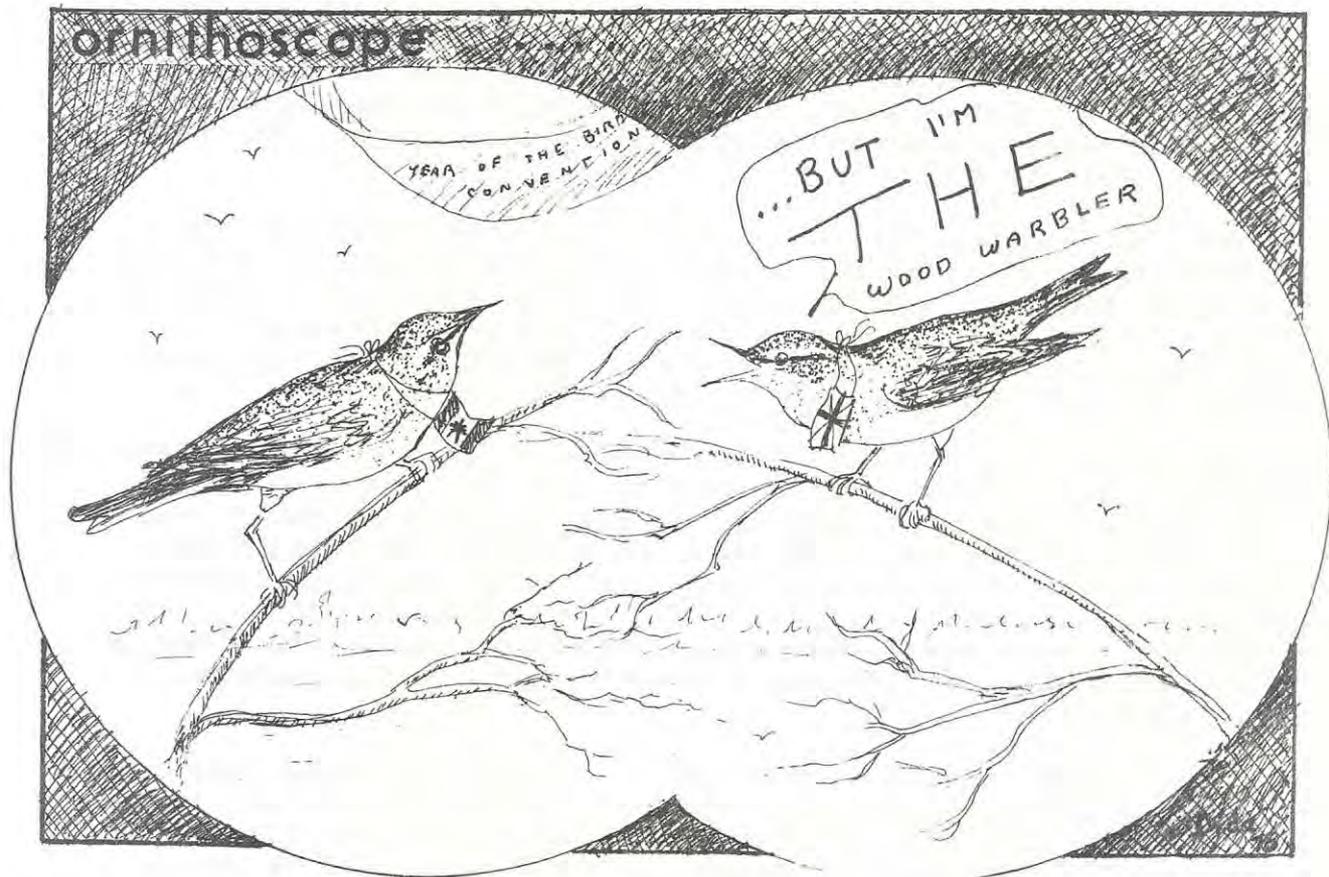
Swallows perch, but have weak feet, and land on the ground only to collect material for their nests. The nests are built of straw and mud and lined with feathers, to receive four or five eggs. Both parent birds feed the young and have two to three broods.

Of course country people have much more fun with them than we city people. There is usually at least one door that they can't use all summer because the Barn Swallows have built on the ledge above. They are able to observe the daily progress of the young. Mrs. Glover told me that she watched a nest this spring and became quite worried because the parents always fed the bird on the very left. She was concerned - thinking that just one baby bird was getting all the food. Then she noticed that the baby birds kept moving to the right; when they got to the extreme right they

evacuated the nest, then took a turn again in the feeding position. The parent birds dive-bombed the cat who had mean designs on the young.

In London I live near the flood plains by the River Thames. The Barn Swallows fly up and down these plains very fast, in twisting and turning exercises. They seem to be flying just for the joy of it. As I cross they miss me in a calculated way. In September, they congregate conspicuously on telephone wires. Suddenly they are gone.

Joy Pocklington



In the New World, the designation "Wood Warblers" has been assigned to the family Parulidae - to distinguish them from the "Warblers" of the Old World (which form part of the large family Muscicapidae). But we can't win. One species of the Old World birds is called the "wood warbler" (Phyllosopus sibilatrix). Its field marks resemble a combination of those of female and immature Tennessee, Wilson's and Yellowthroat.

ALTERNATIVES TO HERBICIDES

AUTUMN is the time of year when lawns are overhauled before winter. We aerate, cut, water and sometimes fertilize or topdress; we even weed, using herbicides - which come in a variety of packages. They all seem to smell like Canadian Tire, and my garden, for one, will have to get along without fertilizer if the only kind I can get is so contaminated that the area in which it is applied no longer smells like a garden.

Herbicides in general are now 'tarred with the Viet Nam brush'. Birth defects are suspected as being one of the possible results of their use. What the effects will be on our children's offspring no one has estimated, but some of the effects on our children from their parents' exposure has been documented. The findings have been generally discounted - conveniently (for whom?) - in favour of an approach that does not rock the boat as it sinks.

The effect of herbicides on the lawn is well known...broad-leaved weeds (including clover, the best companion of grasses) are eliminated at the 'small' cost of contaminating the air of the garden, the block and perhaps the whole neighbourhood for a few days or weeks. We all get to know the chemical-type aroma that afflicts our neighbourhoods in spring and fall, in both urban and rural areas, and indeed along roads everywhere, in parks and recreation areas and generally wherever people congregate in the outdoors!

What alternatives do we have?

We could...put up with - or find a use for - 'weedier' lawns;
 we could...make lawns small enough to weed by hand;
 we could...convert some lawn areas into paved spaces, prairies, meadows,
 forests, shrubbery, long-grass areas, etc.

Suppose we take the 'meadow' option and see how our autumn activities change from 'topdress, fertilize, weed, mow, rake, water'. After watching our favourite summer wildflowers grow, we collect a few seeds as soon as they are ripe (black-eyed susan is my favourite; what's yours?), scratch a small bare spot to plant them, or simply broadcast them and allow nature to take its course. Each year we could add a new species or two until a riot of colour becomes usual in the summer. We can arrange to cut the meadow only after wildflower-seed is ripened - or we can even pull out tree-seedlings once a year, leaving only the meadow plants to propagate themselves. A meadow would be supported by the normal rainfall in the Metro Area. Drier sites could be 'developed' as prairie. Both would be relatively maintenance-free once fully established, providing that the essential removal of woody seedlings is carried out at a reasonable time, and infrequent mowing is timed to protect the resource...rather than to support a "maritime lawn" and/or the lawn-equipment-and-supply-and-maintenance business - or (perish the thought) the proliferation of chemicals. Perhaps a new profession or two would result from such an approach. For example, where appropriate, we might be able to hire the services of livestock to eliminate the annual mowing altogether. Payment for the forage could be a share in the products (manure, wool, mohair, goosedown or even beef).

I'm sure that there are at least some acceptable answers to the herbicide dilemma. We don't need herbicides; we only think we want them to satisfy

an unnecessary yen for an unreasonable land-use...a perfect maritime lawn, with no effort, everywhere in a continental climate! There's always an environmental price to be paid for every unsuitable land-use. In this case one of the charges is birth-defects to be visited on the next generation and perhaps on every generation thereafter. Are we really intending to spawn a population to support a large number of genetic engineers who will be kept busy rectifying all these defects? Why bother?

Mary Smith

A Naturalist's Code of Ethics

A GUIDE TO GOOD CONDUCT ON FIELD-TRIPS

Use sense as well as your senses - look, listen, feel, taste, smell.

Keep on the paths where provided (they usually have been provided for a reason).

Keep off steep slopes and semi-vegetated areas (vegetation is damaged by trampling and erosion follows).

Travel by public transit or pool private transportation means (to conserve natural resources - oil, metals, etc. - and keep pollutants in the atmosphere to a minimum).

Taking of specimens depletes the area for those who follow and can even lead to a species becoming scarce or endangered. If a leader finds it necessary to pass around a sample for close examination, duplicates should not be taken.

Edible wild plants may be injurious to the health, due to wide use of pesticides and herbicides.

Litter is not only unattractive, but can destroy wildlife. (How many mice died in beer bottles last year?)

Report abuses of natural areas to proper authorities. (We are all responsible for what happens - saying nothing is condoning it.)

Editorial Committee

When the October Newsletter was published, we didn't have information about the date and location of the October meeting of the Bird Group. We now know that it will be held at the Dovercourt Public School on October 22 at 8.00 p.m.

The meetings of the Bird Group will be held at this location on the fourth Wednesday of each month until March, except for December. The school is located at 228 Bartlett Avenue, north of Bloor, two blocks east of Dufferin. By TTC, from the Dufferin subway station, take the Dufferin bus north two stops to Hallam; walk east two short blocks.

The SEX Life of Plants

Part 3 - Ferns

Ferns reproduce by SPORES in a somewhat complicated system. Fern spores may develop on the backs of the fronds or may grow on separate stems.



"Fruit dots" or SORI on a PINNULE (sub-leaflet) of regular frond.



Fruit dots develop on the surface of these separate, specialized fronds.

The fruit dots are composed of a cluster of minute cases containing spores.



When the spores ripen the cases burst open, and the spores are dispersed.

When a spore germinates it forms a small heart-shaped plant (PROTHALLIUS). The prothallus develops male and female cells which unite in the presence of moisture. From this union grows a tiny fern plant.



For reading: An excellent description of the reproductive cycle of the fern is given in A Field Guide to the Ferns by Boughton Cobb. Also, refresh your memory of fern terminology by referring to page 13 of your April Newsletter.

Jean Macdonald

ACID RAIN AND THE ATLANTIC SALMON
Conference - Portland, Maine

Nov. 22-23, 1980 - sponsored by The International Atlantic Salmon Foundation and Natural Resources Council of Maine. Among the 25 experts addressing the conference, Harold Harvey of University of Toronto will speak. \$38.00 for early registration (presumably US\$). After Oct. 30, \$45.00. Includes Saturday dinner. Accommodation can be arranged. For further information, contact International Atlantic Salmon Foundation, Box 651, Hanover, NH 03755, USA. (If you wish a registration form, phone 690-1963.)

Much too wet and steep,
Such a worthless piece of land.
There ferns are growing.

(haiku by Diana Banville)

COMING EVENTS



Civic Garden Centre

An all-day bus trip to observe water birds in the Niagara Falls area is planned for Monday, November 10, leaving at 9.00 a.m. The cost will be \$12.00 per person. Call the Civic Garden Centre, 445-1552, for further details and to reserve a place on the bus.

Royal Ontario Museum

On Thursday, November 6, an open colloquium will be held at the McLaughlin Planetarium Lecture Room, commencing at 9.30 a.m., and continuing through the day. Papers dealing with recent developments in museum disciplines ranging from archaeology to zoology will be presented by ROM curatorial staff. Admission free.

Also on November 6, at 7.30 p.m., Dr. David Pendergast of the ROM's Department of New World Archaeology will deliver the Museum's annual Vaughan Lecture on Recent Discoveries in Maya Prehistory. McLaughlin Planetarium Lecture Room. Admission free.

A series of films from the Canadian Film Institute, entitled, "The Science of the Future - The Future of Science" will be presented at the ROM Theatre at 7.30 p.m. on the dates indicated below. Regular admission \$2.00; ROM members, senior citizens and students \$1.00.

- Nov. 4 Animation Overview
- Nov. 6 Space Exploration
- Nov. 11 Science and Transportation
- Nov. 13 A Question of Energy
- Nov. 18 Scientific Research
- Nov. 20 Environment
- Nov. 25 Science and Society
- Nov. 27 Art: Past, Present and Future

The program at the Planetarium until December 7 is "Exploring the Milky Way".

Royal Canadian Institute

The following lectures will be presented at Convocation Hall, University of Toronto, at 8.15 p.m. Admission free.

- Saturday Frobisher's Arctic Exploration
- Nov. 1 - Dr. Walter Kenyon, Curator, Department of New World Archaeology, ROM
- Saturday Our Royal Ontario Museum
- Nov. 8 - Dr. James Cruise, Director, Royal Ontario Museum
- Saturday An Artist in the Arctic
- Nov. 15 - Mr. Alan Collier, wellknown artist
- Saturday The Global Environment - Fragile or Sturdy
- Nov. 22 - Dr. Kenneth Hare, Provost, Trinity College, U. of T.
- Saturday Brave New Women, the Generation of the 1960's
- Nov. 29 - Professor Lorna Marsden, Associate Dean of the School of Graduate Studies, U. of T.

COMING EVENTS (continued)

University of Guelph Arboretum

The following programs will be offered at the University of Guelph Arboretum from 1.00 to 3.00 p.m.

Sat. Nov. 1 -- Bird Feed and Feeders

Sat. Nov. 22 -- Trees without Leaves. (Dress warmly as this includes a walk along the nature trails.)

To reach the Arboretum Centre, take Highway 401, exit at Highway #6. Continue to Stone Road, turn right, continue past Brock Road to Arboretum on the left.

Kortright Centre for Conservation

The Kortright Centre for Conservation, Pine Valley Drive, Kleinburg, presents special programs of demonstrations, displays, films and walks on Sundays between 10.00 a.m. and 4.00 p.m. The following topics will be featured during November:

Nov. 2 and 9 -- Forest and Sawmill

Nov. 16, 23, 30 -- Wood Heat Show

Also on November 9 there will be a Nature Craft Show.

For further information about these activities, call Metro Region Conservation, 661-6600, extension 257.

AUDUBON WILDLIFE FILMS

Series tickets for the Audubon Wildlife Films are available at the following Bass Ticket Outlets:

Hudson Bay Co., Bloor and Yonge

Bramalea City Centre

Fairview Mall

Oshawa Shopping Centre

Scarborough Town Centre

Dominion Stores

Sherway Gardens

Yonge-Eglinton Centre

Don Mills Plaza

Centre Mall, Hamilton

777 Guelph Line, Burlington

A&A Records, 351 Yonge Street, above Dundas Street

Zounds, 2822 Eglinton Ave. East, at Danforth Rd.

Tickets for the complete series cost \$12.00. If available, individual tickets will be sold at the time of the film showing for \$3.00. For further information, please call 425-5238.

The Audubon Films are presented at the O.I.S.E. Auditorium, 252 Bloor Street West, Toronto. The first one of the 1980-81 series will be on November 6 by Steve Maslowski. His film is entitled "Barren Ground Summer" and shows the early explosion of natural beauty and wildlife in Canada's Northwest Territories.

TFN MEETINGS



GENERAL MEETINGS

252 Bloor Street West (O.I.S.E. Bldg.)
(Between Bedford Road and St. George Street)

Monday, November 3, 1980, at 8.15 p.m.

POLLUTION DETECTION FROM THE AIR

Mr. Ron Johnson, Ontario Ministry of the Environment,
Information Services Branch

December meeting - Monday, December 1, 1980, at 8.15 p.m.

GROUP MEETINGS

Bird Group

Wed. Nov. 26 NFB Movie - The Great White Bird (Whooping Crane)
8.00 p.m.

Location: Dovercourt Public School, 228 Bartlett Ave. (Dufferin
bus north from Dufferin subway station to Hallam;
walk 2 short blocks east)

: : : : : : : : : : : : : : :

Botany Group

Tue. Nov. 18 Flora of the Niagara Escarpment - Steve Varga
8.00 p.m.

Location: Hodgson Public School,
Davisville Avenue, just east of Mt. Pleasant Road

: : : : : : : : : : : : : : :

Environmental Group

Thur. Nov. 20 Contrasting Approaches to the Management of
7.30 p.m. Urban Parks in Europe and in Canada (illustrated)
- Michael Hough, Landscape architect

Location: Huron Street Public School,
541 Huron St., 1 block west of St. George subway stn.

: : : : : : : : : : : : : : :

Junior Club

Sat. Nov. 1 The Development of Toronto's Land Forms and
10.00 a.m. Their Significance to us - Ed Freeman, Ontario
Geological Survey, Ministry of Natural Resources

Location: Planetarium Auditorium (immediately south of Royal
Ontario Museum)

EDITORIAL COMMITTEE

- Ms. Diana Banville - 690-1963 #710, 7 Crescent Place, Toronto M4C 5L7
- Miss Mildred Easto - 488-0962 #416, 28 Broadway Ave., Toronto M4P 1T5
- Miss Jean Macdonald - 425-6596 - 88 Parklea Drive, Toronto M4G 2J8
- Mr. Bruce D. Parker - 449-0994 TR66, 109 Valley Woods Rd., Don Mills M3A 2R8
- Miss Florence Preston - 483-9530 #203, 368 Eglinton Ave. E., Toronto M4P 1L9

Articles and/or drawings are welcome. Articles may be anywhere from one or two sentences to 1500 words. To be eligible for inclusion in issue, material must be received by member of Editorial Committee by

Please contact us before reprinting any material in this issue.
In some cases we must obtain permission of the author or artist.