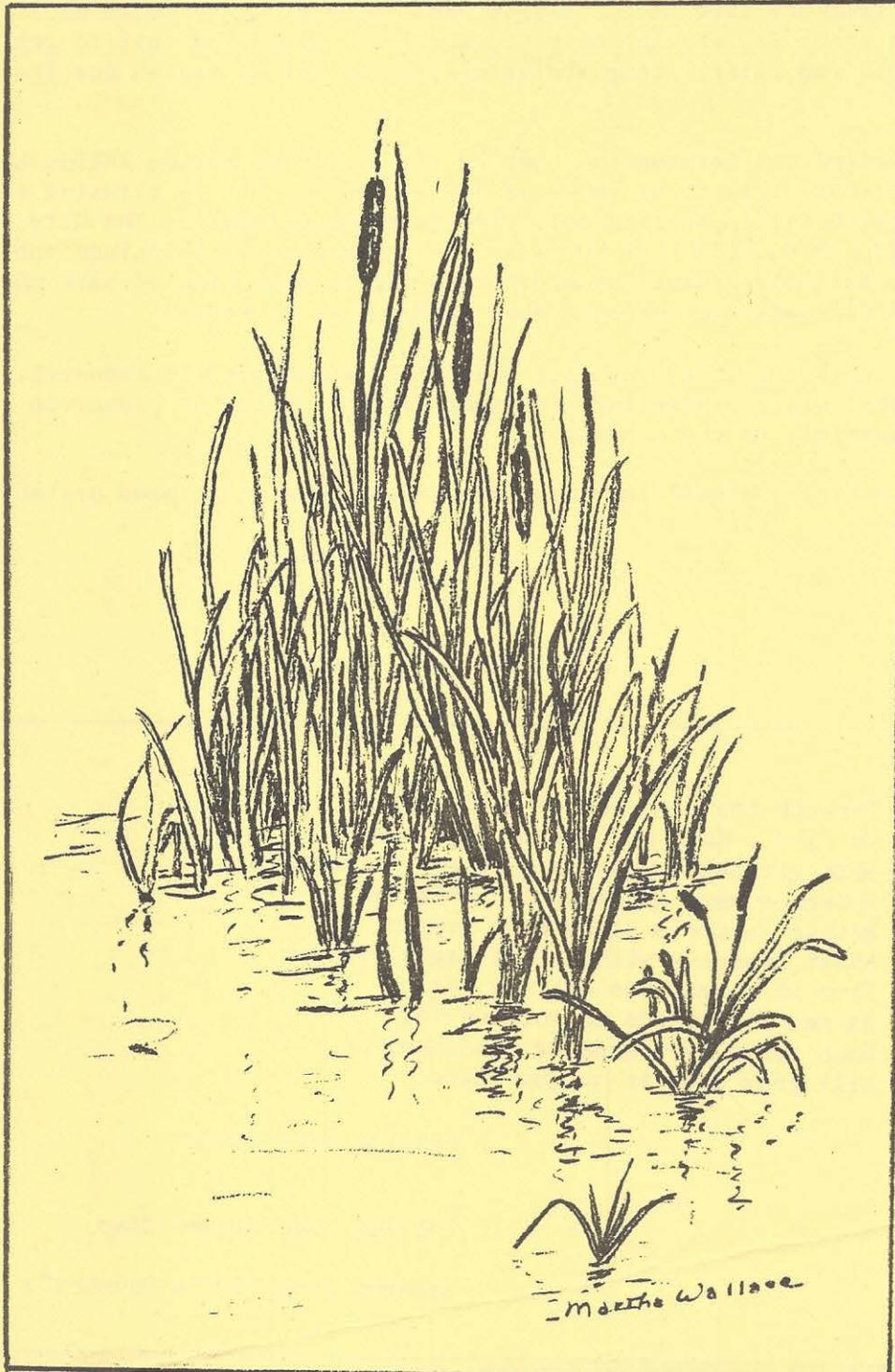


p. 11



TORONTO FIELD NATURALIST

Number 366, October 1984



Natural purifiers ...

See pages 10 and 11.

President's Report

As I write my last letter as President of the TFN, I know that you will be interested to know that something has been done about the Lake Ontario redshale cliff at Bronte that Herb and I discovered from our boat in 1983. A small gravelled pulloff has been made for parking, and a line of concrete bollards edges the road so that vehicles are visibly discouraged from approaching the edge of the cliff, and dumping should not occur.

What a big difference such small changes make! The property LOOKS as if someone cares about it, and the easy access allows people on foot to get to know the scenic red cliff. Congratulations to the Halton Region for its timely action.

Inquiries elicited the information that in the past year Halton Region bought the site and that it is to be known as Burloak Park. (It is situated at the foot of Burloak Drive in Burlington). The Parks Department of the City of Burlington will maintain the area. A masterplan will include public input so that Halton residents should have a say in what kind of park they get. The TFN will also be informed when the process starts.

We think that this one last tiny, but beautiful, and naturally armoured, section of Lake Ontario shoreline (red shale cliff) should be preserved and should be accessible to the public.

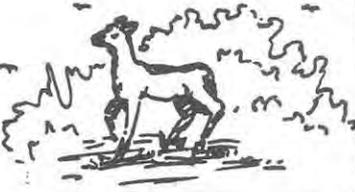
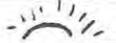
It does pay to alert authorities about natural features that need protecting.

Mary Smith

Through the deep woods' shady cool
 We find a dark and mystic pool
 With witches' brooms and hungry pitchers,
 Sphagnum moss and secret creatures.
 Mother Nature's plans will happen
 Midst Grampa's withies and magic bracken:
 Time will heal the quaking bog
 As new life feeds on rotting log.
 Soon sorrel and dancing maidenhair
 Will grow deep in shadow there.

Heather Mary Harris

(Billie Bear Nature Camp,
 excerpt from "God's Country")

	Upcoming OUTINGS	TFN 
RAIN 	or  SHINE	Everybody Welcome!

Leaf colours begin to change with the first cold weather by the end of Sept. In early October the flowers of goldenrods are the best places to look for insects. The large amounts of pollen and nectar produced by these flowers attract honeybees, long-horned and soldier beetles, ambush bugs, leafhoppers, white and sulphur butterflies, just to name a few. Amphibians and reptiles are seen more frequently as they move toward their winter quarters. In early fall some southern herons wander north. Keep a sharp eye out for them at the lakeshore marshes. The first cool weather accompanied by fall rain can result in an explosion of mushrooms such as chanterelles, teeth fungi, puffballs, coral fungi and stinkhorns. Throughout October late shorebirds such as common snipe, dunlin and pectoral sandpipers can still be seen; yellow-rumped, palm and orange-crowned warblers are also still migrating; and Canada geese are moving south. Check the lake for common loons, horned grebes, and diving ducks. Red-tailed and rough-legged hawks are still moving west along the lakeshore. This is a good time to see golden eagles as well. Watch the lakeshore and open country for lapland longspurs, water pipits and horned larks.

Monday October 1 -- TFN GENERAL MEETING (see page 29)

Wednesday HUMBER VALLEY 18 - Black Creek - Eglinton south

Oct. 3 Leader: Volunteer requested

11 am Meet on Eglinton Avenue West where it crosses Black Creek to walk south. Bring lunch. (between Keele St. and Eglinton Ave. West) *Black Creek Dr.*

Saturday October 6 -- JUNIOR MEETING (see page 29)

Monday TORONTO ISLAND - birds

Oct. 8 Leader: George Fairfield

9 am Meet at the ferry docks at the foot of Bay St. Bring lunch and membership card.

○ FULL MOON -- Tuesday Oct. 9

Thursday October 11 BOTANY GROUP MEETING (see page 29)

Saturday RIVERDALE PARK - sketching

Oct. 13 Leader: Mary Cumming

10 am Meet at Broadview subway station to walk to park on east side of valley. Bring stool. Lunch optional.

also

WINDSOR, ONTARIO - trees and southern vegetation

Leader: Bill Morsink

Call Mary Smith (231-5302) or Emily Hamilton (484-0487) if you are interested in this weekend outing.

Sunday LESLIE STREET SPIT - birds

Oct. 14 Leader: Lise Anglin

10 am Meet at the foot of Leslie Street. Walk south from corner of Queen Street East and Leslie to parking lot.

UPCOMING OUTINGS cont'd ...

Oct. 15 - 19 Time to reserve a place for the outing to Mountsberg on Saturday, October 27 by phoning Emily Hamilton at 484-0487. Confirm by sending your cheque for \$16.00 payable to Toronto Field Naturalists outing to Miss Emily Hamilton, #407 - 3110 Yonge St., Toronto, M4N 2K6. Cheques must be received by Monday Oct. 22.

Wednesday ST. LAWRENCE MARKET - sketching

Oct. 17 Leader: Betty Paul

10:30 am Meet at the southwest corner of King and Jarvis. Bring stool.
Lunch optional.

also BIRD GROUP MEETING (see page 29)

Sunday HUMBER BAY PARK EAST - waterfowl

Oct. 21 Leader: Beth Jefferson

1:30 pm Meet in the parking lot. Entrance to parking lot from intersection of Lakeshore Blvd. and Park Lawn Rd.



DARK OF THE MOON Wednesday October 24 -- a good time to watch stars

Thursday October 25 ENVIRONMENT GROUP MEETING (see page 29)

Saturday MOUNTSBERG WILDLIFE CENTRE - bus outing

Oct. 27 Leader: Ann Reynolds

10 am to You must have reserved a place on the bus between Oct. 15 and 19.

4 pm The bus will leave from the York Mills subway station (on the northeast corner of Yonge and York Mills). Raptor displays, films, nature walks. Bring lunch. Coffee etc. may be purchased there.
Bus leaves York Mills at 10 am and returns about 4 pm.

Saturday November 3 JUNIOR CLUB MEETING

Monday November 5 TFN GENERAL MEETING (see page 29)

Did you know that TTC travel on Sundays and holidays need not cost you more than \$2.75? Yes, from any subway station you may purchase a pass allowing you unlimited travel on the date for which the pass is valid. The pass is good between 5 am and 2 am the next day for a group of up to five people as follows: one adult and up to four children under 18; two adults and up to three children under 18; and one or two adults without children.

For information on further outings of interest, see pages 27 and 28.

ON WALKING...

I have two doctors, my left leg and my right. When a body and mind are out of gear (and these twin parts of me live at such close quarters that the one always catches melancholy from the other) I know that I have only to call in my doctors and I shall be well again...I never knew a man go for an honest day's walk, for whatever distance, great or small, his pair of compasses could measure out in the time, and not have his reward in the repossession of his own accord.

from George Macaulay Trevelyan's essay "Walking" as quoted in "In the Country" edited by Peter Crawford, Macmillan London Td. 1987

 TFN LIBRARY report

 BOOKS IN TFN LIBRARY - PART IV - U.S.A. and ABROAD

Summit Lake - Four Seasons in the Sierras by Carl Heintze, Thomas Nelson Inc. NY 1976; 154 pages plus index and bibliography, photos by Richard Heintze. Describes life in an area still wild though poised on the edge of civilization in Sierra Nevada Mts., California. (See review TFN (349) 23, S 82.)

Sanctuary - produced for MAN & NATURE, the yearbook of the Massachusetts Audubon Society 1977. 120 pages about the system of sanctuaries throughout the State maintained by the Society as well as those maintained by government; illustrated with many photographs and drawings in black-and-white and colour.

The American Years - do. 1976. 116 pages published by the Society to mark the U.S. bi-centenary. Early American life, nature, change. B&W and colour.

Everglades National Park and the Nearby Florida Keys, A guide to - by H. Zim, a Golden Regional Guide. 78 pages plus index. Animal, plant species described and illustrated in colour, maps.

Book of Nature - Vermont Life - by Ronald Rood et al., Stephen Greene Press 1947/1967. Flora and fauna of the Green Mts., B&W illustrations. 187 pages.

The Outer Lands - by Dorothy Sterling. A natural history guide to Cape Cod, Martha's Vineyards, Nantucket, Block Island, Long Island. Anchor Press/Doubleday. 191 pages, liberally illustrated with wash drawings by Winifred Lubell, maps, checklists, index. 1974.

Nature's Year - by John Hay. An Audubon/Ballantine Book, NY 1961. 239 pages. Scratchboard drawings by David Grose. The Seasons of Cape Cod described in poetic style.

Travel Guide - A Pictorial Encyclopaedia of Scenic America - by E. L. Jordan C. S. Hammond & Co. 1957. 201 pages plus index; photos, maps.

The Island - by Ronald Lockley, Penguin Books 1969, 1980. Illustrated by C.F. Tunnicliffe. 176 pages. See reviews TFN (337) 12, F 81; (350) 22, O 82.

Around the Bush by V. Serventy; Australian Broadcasting Commission. (See TFN Library Report (363) 13, A 84.)

Darwin and the Galapagos by John Livingstone and Lister Sinclair, published by CBC Toronto, 1966, illustrated in colour with photos, 57 pages plus short bibliography, contents page, no index. A history and ecology of the Galapagos, status of its animal and plant life. Extent of text about equal to that of illus.

In our resource files we have a little material on the U.S.A. - some birding aids for Texas, New Mex., Everglades, Smokies, Hawaii, San Francisco Bay; wildflowers of Hawaii, Colorado, Arizona, Rockies; literature about arboretums and public gardens, Central Arizona Project, New York City green- ing projects. In the "Abroad" category we have some material on Australia, New Zealand, Britain, southern and southwestern Africa, Zimbabwe, Japan, Kuwait, Pakistan, Siberia.

 FIRST CLASS ALL THE WAY

If you have any complaints about the delivery or condition of your newsletter (for which TFN must pay first class postal rates), please make them known to the Canada Post Corporation: Customer Service 369-4702.

TFN LIBRARY cont'd ...

ACQUISITIONS - July/August 1984 - Our thanks to the donors!

Margaret Cook - newspaper clippings

Jacques Gravel - Clippings and pamphlets on birdlife, including bibliographies on the common crow (7 pages), Clark's nutcracker (3 pages), bluebirds and bluebird trails (4 pages)

Ida Hanson - *The Birdwatchers' Anthology* by Roger Tory Peterson. Harcourt, Brace and Company, NY, 1957. 401 pages. Excerpts from the work of over 80 famous naturalists on every aspect of birdlife, with comments on each by Peterson. Illustrated with small drawings. Coloured frontispiece.

Orris Hull - THE CONSERVATIONIST periodical. NY State Department of Environmental Conservation. Articles on salamanders, voles, snow, among others.

Beth Jefferson - DISCOVER periodical. Articles on insects, the Antarctic.

Robin Powell - CANADIAN GEOGRAPHIC periodical. Toronto Ravines article.

Walter Muma has kindly donated a collection of books on a variety of subjects including deer, wild horses, whooping crane, salt marsh ecology, humour, killer bees, camping, travel (including the 6th and 7th & 8th in the list of U.S.A. books on previous page), pamphlets on birds of prey and coyotes.

The following books received from Walter can be added to previous lists:

Category "NATURAL ENVIRONMENT" - TFN (363) 15, A 84.

The Pursuit of Wilderness - by Paul Brooks. Houghton Mifflin 1971. 212 pages. "In this second American Revolution, we are fighting for the rights of the land itself." A definition of wilderness and status of areas in the U. S. - North Cascades range, Glacier Peak, Alaska, The Everglades, The Oklawaha River in Florida, and with a chapter on Tanzania and discussion of status of the African and Indian rhinos.

Voices for the Wilderness edited by William Schwartz, Ballantine Books, NY, 1969. 366 pages. Each chapter is an excerpt from a book on some phase of wilderness preservation - "the problem...the values...the program and outlook".

Category "NATURAL AREAS - CANADA" - TFN (365) 16, S 84.

Kosoy's Travel Guide to Canada - by Ted Kosoy. St. Martin's Press NY 1976. 321 pages. Though activity and sport oriented, travel tips should be useful to the wandering naturalist.

Category "NATURAL AREAS - CANADA NORTH" - TFN (365) 16, S 84.

Northern Frontier, Northern Homeland - The Report of the Mackenzie Valley Pipeline Inquiry Vols. I and II. Mr. Justice Thomas R. Berger, published by Supply & Services Canada, 1977, 268 pages, including 12-page bibliography.

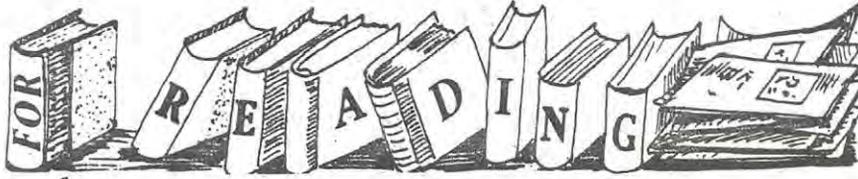
These two books in Walter's collection will be the first in the category "NATURAL AREAS - CANADA - MARITIMES":

The Nova Scotia Traveller - by William B. Hamilton - MacMillan Toronto 1981. 246 pages plus 2-page proper-name index. Oriented toward sightseeing and history; maps and directions useful to travelling naturalist.

Cape Breton Harbour - by Edna Staebler. McClelland & Stewart 1972. 176 pages. Illustrated with wash drawings by Tom Anthes. People-oriented true-life narrative.

DB

If you wish to arrange to borrow any TFN library material, call 690-1963.



Trilliums of Ontario by James S. Pringle. Royal Botanical Gardens, Hamilton, Ontario. 1984. 27 pp. \$2.50 (from Ontario Government Bookshop)

This is the third edition of Technical Bulletin No. 5 which has been expanded and updated, and now beautifully illustrated with colour photographs, in honour of Ontario's Bicentennial. The four species of Trillium found in Ontario are described, and there are also sections dealing with the botany and distribution of Trillium species throughout the world, traditional and historic uses of trilliums, their cultivation and conservation and a complete review of the events that led to the selection of the White Trillium as the floral emblem of Ontario. Seven pages of colour photographs illustrate the species and forms that may be seen throughout this province.

EH

Prevention and Control of Wildlife Damage edited by Robert Timm, Great Plains Agricultural Council, Wildlife Resources Committee, Cooperative Extension Service, University of Nebraska, Lincoln NE, 1984, 600 pages.

This looseleaf tome gives life history, habitat and range of many rodents, carnivores, and other mammals, birds, reptiles and amphibians, with details of diseases, damage, and damage-control economics, methods, materials, supplies and sources.

Supplies and materials include chemical and non-chemical controls:

Non-chemical: Metal wires; electric wires, netting; electronic alarms (not recommended), exploders; kites, balloons, raptor and human effigies; fireworks, shell crackers, whistle bombs and other sounding devices; tanglefoot and other sticky substances; traps; wetting agents; bait boxes; exclusion materials; frightening devices; glue and glue-boards; predator calls; probes and snares.

Chemical: Sterilants, repellents (oral and tactile); toxicants like toxic perches and strychnine; deodorants; fumigants; gas cartridges and chemical compounds.

The preponderance of chemicals in use today is shown by the details of over forty which require medical aid for "the patient" who comes in contact with one. Descriptions of toxicity and antidotes are usually long and complicated. Treatment such as "Wash area affected lightly with soap and water" or "If irritation persists, get medical attention" is prescribed for exposure to only a few repellents (e.g. bone tar oil, capsaicin, putrescent whole egg solids; ammonia soaps of higher fatty acids, and tobacco dusts).

An exhaustive treatment of the subject. It took me six months to read it. I would like to see the non-pollutants organized together so that the intention to have a clean environment is clear and easily carried out.

Mary Smith

Non-polluting products are advertised by a new mail order business called Renaissance Organics, P.O. Box 309, Station 'O', Toronto, Ont. M1A 2N9. (759-3505)

MS

FOR READING cont'd ...

Have you ever really read a field guide? The following quotation is from one of my favourites: Field Book of Insects by Frank E. Lutz, G.P. Putnam's Sons, New York, 1948.

"Many of us have quoted: 'Lady-bird, lady-bird! Fly away home. Your house is on fire. Your children do roam.' Some of us add: 'Except little Nan, who sits in a pan weaving gold laces as fast as she can.' What is it all about? Many Lady-bird larva eat Aphids and this rhyme started in the Old Country, where they burn the hop-vines after the harvests. These vines are usually full of Aphids and lady-bird 'children'. A Nan who can not roam but sits in a pan weaving gold laces is the yellow pupa. Why 'Lady-bird' or 'Lady Beetles'? That goes back still further to the Middle Ages when these beneficial insects were dedicated to the Virgin and were the 'Beetles of Our Lady'."

So next time you find yourself alone on a rainy day without a mystery to absorb you, try reading one of your field guides...particularly one you haven't actually bothered to read for a long time.

Helen Juhola

MINISTRY OF NATURAL RESOURCES MAILING LIST

If you would like to be placed on a mailing list for information on a variety of subjects - e.g. forestry, fisheries, mining, wildlife - at no cost - call 965-1281 and speak to Patti Scribek.

Strange Sightings

Yes, a horsechestnut tree flowering on August 25! It is one of a number of trees I had been watching dying during the past year following construction of a heating tunnel under Queen's Park and part of the University grounds during the winter of 1983-84. Suddenly in late August I realized that the white tufts among the sparse yellow-green leaves remaining on the tree were flowers. Is this the tree's last fling? Will it be alive in the spring? I will be watching! The tree is located on the northeast corner of College St. and Taddle Creek Rd.

Helen Juhola

Invertebrates are excellent indicators of habitat destruction, and "habitats" can be thought of simply as local ecosystems. The assault on invertebrates, like the assaults on all our living companions on earth, in the end amounts to assaults on ourselves. (From NATURAL HISTORY, October 1983, "Save Thermosphaeroma thermophilum." by Paul R. Ehrlich.)

IN THE NEWS

LEAVES

While some of the most basic steps in the changing of leaf colour are not yet understood, recent research by two professors of biology (Kenneth V. Thimann, U. of California in Santa Cruz, and Eduardo Zeiger, Stanford U.) uncovers possible clues to aging, not only in plants, but in animals - including man.

It has long been known that autumnal colour changes result from a breakdown of chlorophyll, the green substance in leaves. It now appears that this occurs when proteins to which the chlorophyll molecules are bound break up into the amino acids of which they are formed. When the chlorophyll is no longer bound to a protein, it disintegrates, losing its green colour. The amino acids resulting from breakup of the proteins are transported through tiny "sieve tubes" into the stems and roots, where their nitrogen is conserved for use in the next season. A similar breakdown of proteins is characteristic in elderly people, who tend to lose protein faster than they can replace it.

Plants store sufficient nitrogen for regrowth in the spring. To produce new leaves through photosynthesis, they get plenty of carbon from carbon dioxide in the air and hydrogen from water taken up through their roots. Though gaseous nitrogen makes up almost 80% of air, it cannot be used directly by plants. It must first be "fixed" by incorporation into compounds, such as nitrates, which the plants then derive from the soil or, in the case of legumes, from nitrogen-fixing bacteria on their roots. Healthy chlorophyll absorbs light of all colours but green, which is reflected; thus leaves are green until the chlorophyll breaks down and the yellow or brown colour of the remaining leaf-tissue appears. Even in summer months there is a partial breakdown of chlorophyll in sunlight, but it is restored during the darkness; leaves are imperceptibly greener in the morning than at sundown. Another factor, rather than chlorophyll breakdown, is responsible for the brilliant reds of autumn, as seen in maple and sumac. Cool fall nights inhibit the flow of sugar out of the leaves. At the same time brilliant sunshine promotes sugar synthesis and its transformation into the red pigment anthocyanin. An early clue was the observation that water plants, such as duckweeds, turn red when placed in sugary water and exposed to bright light. Maples transplanted to Europe often do not become as brilliantly red, because of the cloudier, milder fall weather there.

Whatever initiates aging in a leaf affects only some of its chlorophyll. It breaks down steadily in the inner tissue, sandwiched between the leaf's top and bottom layers. On the leaf's surface, however, chlorophyll in guard cells controlling the entrances to leaf pores continues chemically active until the leaf dies by drying out.

Scientists have tried to explore the action of substances that retard aging. Such slowing is produced by a group of growth hormones, known as cytokinins, that stimulate various forms of plant development. Their mode of action, however, is unknown. Aging in some plants can be turned off; as they become taller, their lower leaves are first shaded, then die and are shed, permitting vigorous growth in the upper part of the plant.

(condensed from an article by Walter Sullivan in THE INTERNATIONAL HERALD TRIBUNE, October 7, 1983 - New York Times Service).

IN THE NEWS cont'd ...

CREATING MARSHES TO CLEAN WASTE

Biotechnology is making it possible to create artificial marshes to treat wastewater from small communities at low cost. The marshes, which can be built almost anywhere, produce high-quality outflowing water and require little attention. The first experimental artificial marsh was constructed at Listowel in 1981 and paid for by the Ontario Lottery. After two years, it has attracted attention from Australia, Sri Lanka and the United States. At Cobalt, an experimental marsh was built on a basin of abandoned mine tailings. Studies done at Bradford measured the breaking down of sewage in natural conditions. In purification, the entire marsh ecosystem has a role to play. The chief problem nutrients in domestic wastewater are nitrogen and phosphorus. These are taken up by the marsh plants as they grow. The plants, particularly cattails, also provide a stable environment for the micro-organisms which are essential for treatment. The soil and organic litter also remove the nutrients. Thus there are physical, chemical and biological mechanisms at work. Tested at Listowel, serpentine or channelled marshes have proved to be more efficient than marshes with square or rectangular shapes. Research to date shows a community of 20,000 people would need about 60 acres of marsh for treatment, as compared with 100 acres of conventional, seasonal discharge lagoon. Marshes are very productive ecosystems for the creation of organic mass. In Texas and California, and at the Disney World and EPCOT Centre demonstration projects in Florida, water hyacinths have been used instead of cattails for purification and energy production. by Richard Hall.

extracted from an article in The Globe and Mail, September 29, 1983.

HAIL TAKES HEAVY TOLL ON HOUSE FINCH COLONY

A hailstorm on the weekend killed ten house finches near birder Marvin Smout's house in London, Ontario. Smout and his neighbours also found the bodies of a blue jay, a chickadee, a mourning dove and a robin. Bird deaths in such cases usually total many times the number of bodies found.

London's first house finches began nesting near Smout's house several years ago and had grown to a colony of thirty before the storm.

Two of the five adults seen daily before the storm returned to Smout's sunflower feeder by Monday. Nearby foliage was badly shredded and a hummingbird fed on the only flower left in sight, a Fuchsia on Smout's protected porch.

from The Globe and Mail, August 8, 1984.

<p>Having lost its trees, The railway bank has become A long, long meadow.</p>
--

haiku by Diana Banville

issues---

Further comments on the Don Valley Brickyards - Letter in the Globe & Mail of July 28, 1984:

Those who have taken students to the Toronto Brick Company's quarry in the Don Valley know the exposures there are priceless. If this were an archaeological site there would be no question of saving it from development. But because the public is unaware of its value the location will, it appears, be destroyed. In the northern and northeastern exposures of the topmost layers - the unconsolidated material that lies above the bedrock shale - one can see where stream courses and channels have been overrun by glacial ice and buried by boulder tills. Often these buried valleys extend below the glacial deposits into flat-lying layers which hold fossil records of a far warmer climate. These lower layers date from beyond 100,000 years to an interglacial period that lasted at least another 100,000 years.

Within a depth of about 30 feet above the shale there is thus a record that takes us through a worldwide mean annual change in temperature about 6 Celsius degrees. This record has played a major part in deciphering the history of the great ice age, the Pleistocene epoch - and it continues to do so not just for Canadian scientists, but for others from all over the world. Protecting the Don Valley site, for science and for general interest, does not mean taking the whole quarry; we are concerned only with the topmost material at the back. Set this small area aside; make it a "working museum" with displays and artwork to tell its story; make it a satellite of the Science Centre, or of the Royal Ontario Museum. All this could be done easily for the \$4.5 million raised.

J. Robert Janes, St. Catharines, Ont.

This Month's Cover

"Cattails in a Pond" - conte and pencil drawing by Martha Wallace

The artist, when visiting her sister in the country, noticed the cattails in the adjacent ditch and wondered when they would turn up in Grace's pond. One day on her arrival she discovered them there and immediately sketched them.

This plant is sometimes called "bulrush", a name also used for the stouter sedges of genus *Scirpus*. Botanists hereabouts try to distinguish the two by always referring to genus *Typha* as "cattail". Our two species of cattail grow throughout the northern hemisphere. The male spike of the common or broad-leaved, *T. latifolia*, is located just above the thicker female spike, but in the narrow-leaved, *T. angustifolia*, there is usually a gap between the two. This latter is salt-tolerant and is becoming more common along roadsides. Perhaps this feature also accounts in part for the fact that it turns up again on the Patagonian Peninsula.

DB

ON OPTIMISM...

... Survival depends on both repairing damage to ourselves and making changes in the environment to prevent a recurrence of the event that caused the damage.

We have plenty of evidence of human ability to destroy the environment, but we tend to overlook what we have done to restore areas once made uninhabitable. One of the most dramatic examples is found in the history of London, England, where in 1952 thousands of people died of air pollutants generated by mining and burning coal for power and heat. As a result of the great disaster of the London smog, the population lobbied for legislation to clean up both the mining industries and the use of coal. The lobbying effort was successful, as were the reforms. London now has the best air quality of any European city. Not only was human health improved, but birds, insects, and trees returned in vast numbers. Even some species of birds once described by Shakespeare but thought to be extinct, made their return to the biosphere.

Similarly, there is the reclamation of Jamaica Bay, near New York's Kennedy Airport. For decades garbage and industrial wastes had been dumped into the bay, destroying all forms of life. It was virtually a dead region until a single person, Herbert Johnson, saw what was happening and decided to do something about it. Completely on his own at first, he began planting trees, shrubs, and grasses. Soon he was alerting other people living in the area to what he was doing, and encouraging them to participate in the reclamation process. Today Jamaica Bay has come back to life, and is one of the largest nesting places for migratory birds on their north/south route.

from "Well Body, Well Earth - the Sierra Club environmental health sourcebook" by Mike Samuels and Hal Zina Bennett, Sierra Club Books, San Francisco, 1983

There is perhaps, a very human tendency to feel overwhelmed and defeated by the number and extent of the problems we face today, and so tell ourselves that nothing a single person does could possibly matter. However, a great deal has been accomplished by individuals, in the past decade alone, to solve pollution problems. The reclamation of New York's Jamaica Bay and a successful program to clean up the air in national parks were both initiated by individuals.

Having the facts at one's disposal -- regardless of how distressing those facts may be -- is the first step toward positive change. The diseases that now threaten the living Earth are, for the most part, our own creations. And as their creators, we are now in the process of learning to control our creations.

from "Well Body, Well Earth - the Sierra Club environmental health sourcebook" by Mike Samuels and Hal Zina Bennett, Sierra Club Books, San Francisco, 1983

MEMBRES FRANCOPHONES

Si vous avez besoin d'aide avec l'interprétation des passages dans le newsletter ou d'autre littérature des Toronto Field Naturalists, veuillez téléphoner à Jacques Gravel, 482-3266, le soir.

Toronto Region BIRD RECORDS

The Toronto Field Naturalists should be maintaining records of birds observed within Metro Toronto. This will help us determine migration trends as well as rare or unusual birds. Please send your sightings to one of the following:

▷ Beth Jefferson, 41 Lake Shore Dr., Apt. 404, New Toronto M8V 1Z3
or call 251-2998 between 6 and 10 pm

or

Bruce Parker, TH 66, 109 Valley Woods Rd., Don Mills, Ont. M3A 2R8
or call 449-0994

or

Lise Anglin or Howard Battae at the Bird Group Meetings.

We will try to coordinate your reports and publish summaries periodically.

GULL, TERN AND HERON NESTINGS AT THE LESLIE STREET SPIT, Summer 1984

The Canadian Wildlife Service has been surveying the nesting of gulls and terns on the Leslie Street Spit for a number of years. In a conversation of August 31, 1984, Gaston Tessier of the CWS reported the following results of the summer 1984 survey, including some data about herons as well.

Caspian Terns: Early nests (May 3) were successful this year. Two hundred nests with young were counted, for a total of about 500-600 birds by late summer, a definite increase from 1976, when there were only three nests and seven adults.

Common Terns: An island on which they usually nested in past summers was wiped out this year by an early spring storm, but 1200 nests were found in a new area. Tethered European falcons placed there to scare off gulls (successfully) did not affect the terns. On August 21 the Common Terns disappeared from the Spit and had not been seen again by August 31, the date of this report. It is not known where they went or why.

Herring Gulls: One hundred nests were counted, the same as last year.

Ring-billed Gulls: An actual count of nests was made this year, which took nine days of arduous labour. The result was 76,000 nests, no increase over last year's estimate.

Black-crowned Night Herons: Forty-five nests and 150 herons were counted at one site on the Spit. Many more were seen at Mugg's Island.

Great Blue Herons: More birds were seen than in past years, but still no nests. We are asked to keep an eye out for nesting of these birds in years to come.

Beth Jefferson.

<p>The heron cries no more Across the bay - First snow of winter.</p>

haiku by Christine Hanrahan

TORONTO REGION MAMMAL RECORDS

HAVE YOU SEEN ANY BATS THIS YEAR?

This past summer, I am sorry to say, I neither heard nor saw a single bat. In the summer of 1983 I observed them downtown (on Church Street south of Bloor Street and in the Rosedale ravine) as well as in northern Ontario. Summer of 1984 - none! What about you?

Then there are the grey squirrels. When we moved to our present address twenty years ago there were no squirrels on our street. Now I often watch as many as eight playing tag on the lawn and in the ailanthus tree outside my windows. At first we saw only black (and a few grey); now we have squirrels of this species that are black-and-grey, black-and-red, and totally red.

Leaders on outings have reported very few mammals. Since December, 1983, the following observations have been made on TFN outings:

HUMBER BAY PARK. December 28. Beth Jefferson reported that members watched a MUSKRAT feeding on plants gathered underwater along the icy shore.

ETOBICOKE WOODLOT (west of greenhouse). January 8. Bruce Wilkinson reported the sighting of two COTTONTAILS, one five feet up a tree (See TFN (364) 27, Ma 84.)

ROWNTREE MILLS PARK. January 11. Billie Bridgman saw GREY SQUIRRELS (blacks and greys) and RABBIT-tracks.

KORTRIGHT CENTRE GROUNDS. January 15. Muriel Miville reports that members observed tracks of WHITE-TAILED DEER and RABBIT, as well as scats of RABBIT and RED FOX.

SMYTHE PARK, BLACK CREEK. January 22. Aarne and Helen Juhola report seeing 3 GREY SQUIRRELS, and the head of a dead MUSKRAT. They also report what looked like the work of PORCUPINES - tree-bark which had been gnawed.

GARTHDALE RAVINE. March 7. Sandy Cappell reports tracks of RACCOON by the stream, and tracks of SQUIRREL and RED FOX.

LAMBTON WOODS. May 3. Ilmar Talvila spent some time watching a MUSKRAT swimming.

HUMBER VALLEY (north of Albion Road). July 4. Eileen Mayo saw tracks of WHITE-TAILED DEER and RACCOON,

Other mammal reports from members follow:

WEST HUMBER (near Albion and Islington). March 8. At 2 AM we saw a RED FOX from our bedroom window. It was the first time we saw one in our yard. It wandered through and ate something from under the snow below the suet log feeder. (We live overlooking the west branch of the Humber...) The next day I saw its prints in the snow and also down near the river. Joan O'Donnell

ROUGE VALLEY VICINITY. April 15. At 1 PM Lois James saw 9 WHITE-TAILED DEER galloping across a field adjacent to the Rouge Valley.

DON VALLEY PARKWAY south of Eglinton East. April 21. Aarne Juhola saw a RED FOX beside the parkway about 10:30 AM.

RATTRAY MARSH VICINITY. May 19. At 6:20 AM my mother, Mrs. A.J.C. Anglin, saw a RED FOX just outside the window of my parents' little cottage on Lorne Park Estates, less than a mile east of the Rattray Marsh, within 200 yards of the lake. She said the fox looked unhealthy, thin, and scraggly. It bolted as it noticed her. She wondered if anyone else saw this animal in the same area. Lise Anglin

NEW TORONTO. June 6. At 12:40 PM Beth Jefferson saw a BAT flying east over the yard of the James S. Bell School.

TORONTO REGION MAMMAL RECORDS - continued

HUMBER MARSHES and ROUGE VALLEY south of Twyn River Drive. I have also been told that BEAVERS are still at work in these two locations.

POTTAGEVILLE SWAMP. June 2. On a sedge outing the Botany Group saw a PORCUPINE "playing possum" twenty feet up a tree.

HIGHLAND CREEK WEST BRANCH. July 7. On a TFN outing some members of the group noted a GROUNDHOG on the mowed lawns of the park, as well as at least two GREY SQUIRRELS, one of which was black with a brownish tail.

TORONTO/UXBRIDGE. May 12. En route to Jim Baillie Nature Reserve some members noted at least three GROUNDHOGS on the banks of the road, one emerging from a hole.

Do send your mammal reports to any member of the editorial committee. It is only by reporting what we see that we can discover what changes are taking place and that, after all, is one of the things that naturalists are supposed to do.

Helen Juhola

TORONTO REGION Amphibian & Reptile REPORT

It's time once again for amphibians and reptiles to be on the move seeking winter hibernation sites. As these are often some distance from summer feeding and breeding areas, amphibians and reptiles are frequently encountered at this time of year. In addition an increased rainfall and cool nights stimulate movement during daylight hours. I would like to hear from you if you have seen any amphibians and reptiles in the Metro Toronto area. Please include exact location of sighting and any unusual behaviour. Last year they remained active up to November 24 and you can consider yourself fortunate to have seen some of our most secretive wildlife species. I would like to thank all those who have contributed to this study so far. "Good frogging".

Bob Johnson (evgs.) 839-7139
 (days) 284-8181
 c/o Metro Zoo,
 P.O. Box 280, West Hill, Ont. M1E 4R5

projects

DO YOU FEED THE BIRDS IN WINTER?

If so, would you like to take part in the Ontario Bird Feeder Survey?

The purpose is to record numbers and kinds of birds taking food at feeders. It takes an hour or so of a volunteer's time every two weeks from November to March.

For information on how to take part, write:

Ontario Bird Feeder Survey,
 c/o Long Point Bird Observatory, P.O. Box 160, Port Rowan, Ontario. NOE 1M0.

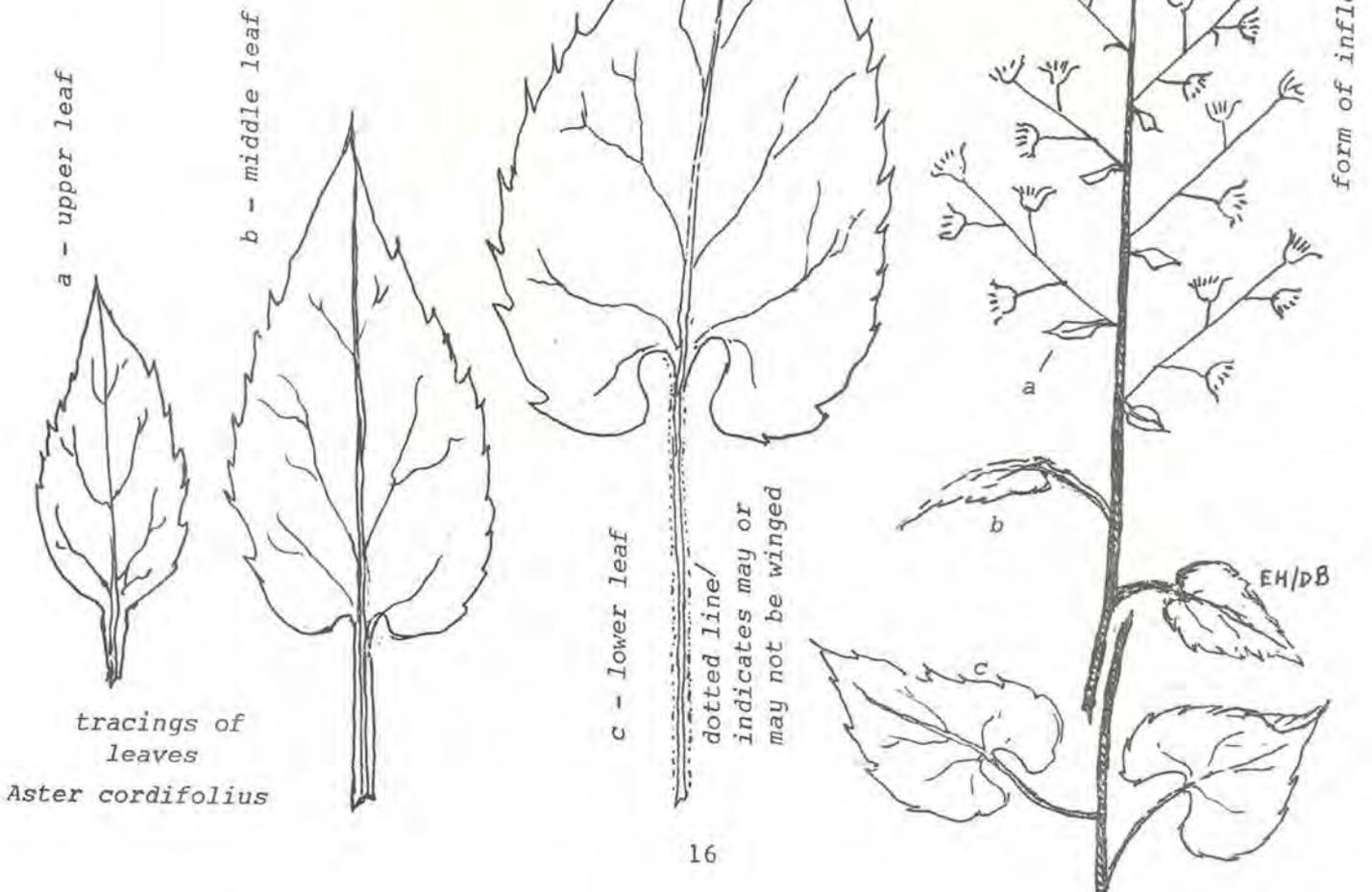
THE HEART-LEAVED ASTER

It has come to our notice that, in A FIELD GUIDE TO WILDFLOWERS by Peterson and McKenny, the description of the heart-leaved aster (*Aster cordifolius*) is misleading and is confusing some of us who would like to identify this plant. The general leaf-shape given is descriptive of the lowest leaves. However, the words "most leafstalks slender" are quite misleading as the stalks of the upper leaves have a conspicuous wing, those of the middle leaves are winged, and in some plants examined even the lowest leaves' stalks have a slight wing, though they certainly are slender. We examined many herbarium specimens and found little variation in the winged leafstalks in the plants from locations in Ontario. Then we examined specimens from Michigan, Ohio, and New York, and found that indeed the stalks of the upper leaves are winged, though less so than those of our local plants, and on the middle leaves the stalks were only slightly winged if at all. Peterson's isn't the only culprit as most manuals and keys we consulted say "petiole not winged". However the Gleason & Cronquist manual states that the leafstalks are "slightly if at all winged".

In our area, the aster with which the heart-leaved could be confused is the large-leaved, which also has wings on the stalks of the middle leaves, though the upper ones are sessile (not stalked); the basal leaves are very large and are a conspicuous ground-cover in the woods from June till the flowers appear in mid-August. However, this species has a flat-topped inflorescence, as pictured by Peterson, while the heart-leaved bears its flower-heads in a panicle (see our diagram).

Ref.: MANUAL OF VASCULAR PLANTS
OF NORTHEASTERN UNITED STATES
AND ADJACENT CANADA
by H. Gleason and A. Cronquist, 1980.

Emily Hamilton



A Naturalist's Code of Ethics

WHAT CAN YOU DO TO HELP THE GREAT LAKES?

Many household, car and garden products are harmful if used or disposed of improperly. They contain chemicals which are toxic (poisonous) and/or caustic (causing burns) to people, plants and animals.

Toxicants often accumulate in the environment and can be poisonous in small quantities. It is the continuous release of small amounts of toxic substances that can with time create big problems.

Toxic chemicals enter waterways in many ways:

- air pollutants such as lead from gasoline returns to us in rain and surface runoff
- spilled oil and grease, pesticides, fertilizers and other products wash off yards and gardens into storm drains and streams
- chemicals in trash disposed in improperly designed or managed landfills seep out into groundwater and other nearby waterways.

General tips

Use

Be aware of the uses and dangers of products. If directions are unclear, contact the manufacturer or dealer before using.

Keep unused products in their original containers for directions to follow and a list of contents for reference in the case of accidental poisonings. Store in a safe place.

Do not overuse a product; twice as much does not mean twice the results. Follow directions.

Never mix different products; explosive or poisonous chemical reactions may occur.

Buy only what you need. If you don't buy an excess, you won't have to get rid of it.

Disposal

Never dispose of products containing harmful chemicals down the drain unless you know they can be treated. Many toxic substances disturb septic tanks or pass right through the treatment system. If you are unsure, call the Ontario Ministry of the Environment.

Automotive wastes

Examples of toxicants in waste oil: petroleum hydrocarbons and heavy metals like lead and zinc.

Toxic effects: Waste oil is toxic to people, fish and wildlife.

Special warnings and precautions: Dumping waste oil into the sewers, storm (street) drains or any body of water is illegal.

Disposal

Drain waste oil into a container with a tight-fitting lid, and take it to a local service station to be recycled.

Example of toxicant in antifreeze: ethylene glycol.

Toxic effects: Antifreeze is poisonous to people, fish and wildlife. Many pets die after they drink from sweet tasting puddles of antifreeze on driveways and sidewalks.

A NATURALISTS'S CODE OF ETHICS cont'd ...

Disposal

Do not dump or wash antifreeze into street drains. Most of these drains connect directly to nearby streams.

If possible, pour antifreeze onto a porous surface, like gravel, away from water. Do not pour antifreeze down the drain into a septic tank system.

Pesticides and Herbicides

Examples of products in this category: rat poison, slug bait, malathion, parathion, weed-and-feed, 2,4-D

Toxic effects: All pesticides are designed to kill or inhibit specific plants and animals; they are also poisonous to people, pets, and wildlife including trees.

Use

Consider alternatives to pesticide use whenever possible.

After use, be careful not to over-water. The pesticide or fertilizer will run off with the excess water into a nearby stream or storm drain.

Disposal

All pesticides and herbicides are toxic to some degree. They should never be dumped into sewers, storm drains or septic tanks.

Paint Products and Preservatives

Examples of products in this category: paints, lacquers, paint thinners and strippers, brush cleaners, wood preservatives and turpentine.

Examples of toxicants in these products: toluene, lead (in old paint), methylchloride, pentachlorophenol, trichloroethane.

Toxic effects: Many of these toxic substances are suspected carcinogens, poisonous to people and animals, or capable of accumulating to toxic levels in the environment.

Disposal

Solvents, paint thinners and wood preservatives, in particular, should not be dumped in the sewer system.

Let used turpentine or brush cleaner sit in a closed jar until paint particles settle out. Then strain and reuse; wrap the waste material and discard in the trash.

Cleaners

Examples of products in this category: deodorizers, car cleaners, polishes, spot removers and many household cleaners.

Examples of toxicants in these products: lye, petroleum distillates, naphthas, trichloroethane, phenols, dichlorobenzene.

Toxic effects: Many of these are immediately poisonous or accumulate to toxic levels in people, fish and wildlife.

Use

Consider the use of non-toxic products as alternatives.

1. For clogged drains: boiling water, "snaking" with a metal line and/or using a plunger;
2. For general cleaning: baking soda;

Use biodegradable and low phosphate products when possible.

A NATURALIST'S CODE OF ETHICS cont'd ...

Condensed and adapted from "Toxic Substances in Your Home: water quality protection through proper handling of home and garden products" published by The Municipality of Metropolitan Seattle, Wash. and distributed by the International Joint Commission, Great Lakes Regional Office, 100 Ouellette Ave., Eighth Floor, Windsor, Ont. N9A 6T3

CHILDHOOD MEMORIES OF NATURE AT THE COTTAGE

I write this article as a tribute to my father and mother for giving our city family ten summers at a cottage on the edge of the Canadian Shield. Such union with nature is a very special gift for parents to give to their children. The experience affected us so deeply that it still determines many of our choices in life.

It is one thing for a city child to see a photograph of a bushy red fox in a book. It is quite another to come upon one sleeping in the forest so that you disturb it and it jumps up in front of you. But, instead of running away, it turns back, eyes full of curiosity, sits, and watches. Our silent communion, lasting for about a quarter of an hour, was one of the big thrills of my life.

Many times as a young teenager, I went into the forest to be part of it. Imagine my fright one day, while I was sitting quietly and half hidden, to suddenly hear a booming noise ... boom, boom, boom ... right behind me. I was very frightened, until two rabbits broke their freeze and dashed off, pausing long to drum another boom, boom, boom with their feet. Not many city children have heard that sound!

One of the benefits of spending several years in one place was to observe nature's cycles. We learned that every seventh year, for example, blueberries were plentiful. We found that a lean year followed a year of plenty.

We saw a mass migration of tiny frogs. For two nights we couldn't go out without danger of stepping on the determined little creatures, which were hop, hop, hopping from the creek in back of us into our bay.

We learned firsthand how people interrupt the environment. Our side of our small lake had electricity, but the year that the hydro company was blasting on the far side of the lake to install hydro poles we observe a noticeable increase in the number of rattlers on our side. One came to live in our woodpile just behind our cottage ... a friend. But we put on our boots and took flashlights when we went out at night.

We made other friends, such as turtles. We saw some awesome sights ... our first huge channel cat passing under the bridge below us. We felt the thrill of the loon's call, making shivers up and down our spines. We wanted to touch the pair of cuddly looking bats sleeping in our cottage louvres, but gave them a respectful distance instead. We would stop to admire "our" golden eagles (but hurried our kittens inside) ... and even respected the scavenger terns. One day we were privileged to watch a daylong war between red and black ants. The black ants fought valiantly, but the red ants were the victors by the end of the day.

All this and more has helped my sisters and me to put ourselves ... human beings ... into perspective as part of the animal world of nature ... a rare gift indeed for a city child. So I give thanks to my parents for giving us all this gift.

Janis (Higginson) Symmers

TWO VIEWS OF CONSERVATION

1

A voice crying in the wilderness?

What man did to the Dodo, and has since been doing to the Blue Whale and about 1,000 other kinds of animals, may or may not be morally wrong. But the conservation of nature is most important because of what nature does for man.

I believe something goes wrong with man when he cuts himself off from the natural world. I think he knows it, and this is why he keeps gardens and window-boxes and house plants, and dogs and cats and budgerigars. Man does not live by bread alone. I believe he should take just as great pains to look after the natural treasures which inspire him as he does to preserve his man-made treasures in art galleries and museums. This is a responsibility we have to future generations, just as we are responsible for the safe-guarding of Westminster Abbey or the Mona Lisa.

It has been argued that if the human population of the world continues to increase at its present rate, there will soon be no room for either wildlife or wild places, so why waste time, effort and money trying to conserve them now? But I believe that sooner or later man will learn to limit his own overpopulation. Then he will become much more widely concerned with optimum rather than maximum, quality rather than quantity, and will rediscover the need within himself for contact with wilderness and wild nature.

No one can tell when this will happen. I am concerned that when it does, breeding stocks of wild animals and plants should still exist, preserved perhaps mainly in nature reserves and national parks, even in zoos and botanical gardens, from which to repopulate the natural environment man will then wish to re-create and rehabilitate. These are my reasons for believing passionately in the conservation of nature.

All this calls for action of three kinds: more research in ecology, the setting aside of more land as effectively inviolate strongholds, and above all education. By calling attention to the plight of the world's wildlife, and by encouraging people to enrich their lives by the enjoyment of nature, it may be possible to accelerate both the change in outlook and the necessary action. It has been estimated that conservation all over the world needs each year two million pounds. This is no astronomical figure. It is half the price of a V bomber, less than one-twelfth the price of the new Cunarder, or the price of, say, three or four world-famous paintings. Much money is needed for relieving human suffering, but some is also needed for human fulfilment and inspiration. Conservation, like education and art, claims some proportion of the money we give to help others, including the as yet unborn.

TWO VIEWS OF CONSERVATIONS cont'd ...

Even if I am wrong about the long-term prospects - if man were to fail to solve his own overpopulation problem, and reaches the stage 530 years hence when there will be standing room only on this earth - even then the conservation effort will have been worthwhile. It will have retained, at least for a time, some of the natural wonders. Measured in man-hours of enjoyment and inspiration this alone would be worth the effort. Many will have enjoyed the pictures even if the gallery is burnt down in the end.

The community chest which seeks to make the gallery representative and maintains the fire-alarm system is the World Wildlife Fund.

(from OBSERVATIONS OF WILDLIFE by Sir Peter Scott, Phaidon Press Limited, Littlegate House, St. Ebbe's Street, Oxford, 1980, with permission.)

NATURE'S INTRINSIC VALUE

2

The following item is taken from ONTARIO CONSERVATION NEWS, published by The Conservation Council of Ontario; Vol. 10, No. 9, April 1983.

When it comes to Ontario's natural resources, most people are now accepting the principle that we have to make better use of what we have. That means we must institute better planning, to some extent multiple use, and overall take more care about development and exploitation.

Consider that wilderness is, in fact, already developed and fully exploited by the animal and plant life living there. Barry Kent MacKay of the Toronto Star adds: "We alter it (wilderness) because we have an ability, a self-perpetuating need and a desire to do so - our socio-economic structure has come to depend upon it and our awesome arrogance allows for no further justification."

As long as the environment is perceived as a resource that only attains value to the degree it benefits only one species - man - we will never be able to see any fragment of it saved in primal form.

A time is approaching when the inherent values of true wilderness and the inherent rights of the animate and inanimate components of wilderness will be widely acknowledged.

Current Ontario land use plans say the objective for wildlife management in Southern Ontario is to provide opportunities for social and economic benefits from wildlife, recreation, and fur consistent with the maintenance of healthy wildlife populations. The 99.9% of wildlife species that normally are not "viewed" or "harvested" are apparently ignored - unless they become "endangered", in which case there is a mandate to try to keep them from becoming extinct!

WINTER SOLSTICE IN ARIZONA

The temperature was a pleasant 68° F when we landed at Tucson Airport at 1:00 PM on Friday, December 19, 1983, and headed for the Sonora Desert Museum just west of the city. It was sunny and dry during our seven-day stay. The way to the Museum winds for about ten miles through Tucson Mountain Park, hilly desert country covered with endless ranks of giant saguaro cactus, up to forty feet tall. Near the tops of these spiny pillars we glimpsed the occasional gila woodpecker poking about near its nesting hole. The museum has many interesting live displays of desert birds, mammals and reptiles, and a half-acre flight-cage in which we were able to walk among Arizona birds, familiar and exotic, all as tame as chickens. We also saw a number of wild birds in the cactus gardens surrounding the enclosures. Here was the diminutive verdin popping in and out of the lower tiers of the cacti, while large and vocal cactus wrens perched on the top, as if trying to look as conspicuous as possible. Phainopeplas, like cardinals in sombre black, flitted endlessly back and forth among the bordering trees. Here we also encountered Cassin's finches (the only ones of our tour), ground doves, lesser goldfinches and Say's phoebes.

The next morning saw us heading south for the Madera Canyon in the Santa Rita Mountains. The drive through arid grasslands along Route 80 yielded a steady succession of red-tailed, rough-legged and marsh hawks, kestrels, loggerhead shrikes, and both common and white-necked ravens. We then passed through miles of leafless, nut-heavy pecan groves on the Continental Road. In one of these groves we saw a great flock of about 200 western meadowlarks, gathered as if flocking for migration. At a weedy corner near the village of Continental we came upon a gathering of several species of birds, some of them new to us. Within a stretch of 30 yards we saw a dozen Gambel's quail, a curve-billed thrasher, a Bewick's wren, a brown-throated wren (SW subspecies of the house wren), several handsome pyrrhuloxias, an orange-crowned warbler, and a yellow warbler (which should by now have been wintering in mid-Mexico). Fifty yards from this lucky weed-patch we saw the first of the many road-runners of our trip.

As our road began to ascend into the mountains, it again entered dry grasslands, and here we encountered a reddish coyote ambling across the road. When he reached the other side he sat in the long grass and took a long thoughtful look at us as we observed him. A little farther on in one of the "washes" (dry river beds) we saw our first black-throated sparrow. We stopped for lunch at the Madera Canyon Picnic Grounds by a mountain stream and here, high in the sycamores and live oaks, we spotted four acorn woodpeckers - strange, spectacled birds with a distinctly clown-like appearance - which are known to chisel holes in tree-trunks and stuff them with acorns. On to the Santa Rita cabins where we were to spend the night. After checking in we set off to try a quarter-mile of precipitous mountain trail. Here we saw an Arizona (or Strickland's) woodpecker, and a number of Mexican jays; on our way back we saw our first bridled titmouse with its sharp crest and striking black-and-white face-pattern.

On Monday morning we left Madera early and headed for Ramsay Canyon in the Huachuca Mountains, a distance of about 160 miles. We drove through some impressive mountain-scapes, encountering along the way a dozen red-tailed hawks as well as a Cooper's hawk and three turkey vultures. We arrived at the Mile-Hi cabins (Ramsay Canyon Preserve) about 1:00 PM and were surrounded by birds attracted to the many feeders maintained by the management. We were lucky

WINTER SOLSTICE IN ARIZONA cont'd ...

to see a pair of Costa's hummingbirds at the sugar-water feeder near our cabin - the male with scintillating purple crown and throat. These hummers are not expected north of the Mexican border in winter. We also saw one pygmy nuthatch along with dozens of house finches, Mexican juncos, Oregon juncos, gray-headed juncos, and Mexican jays.

On Monday morning, a cool 34°F at 7:00 AM, we set out to explore the Hereford Road in a flat valley just east of Ramsay Canyon. Before leaving Ramsay we met a peccary standing idly in the middle of the road as if absorbed in early morning meditation; we had an excellent view of this small, dark-haired, wild pig of the new world, before it moved off slowly and deliberately to let us pass. The Hereford Road runs for miles through the grasslands and here we found seven species of sparrow at the edge of the prairie, including Brewer's (100), Cassin's (12) and sage (8). Along the edge of a vast cotton field appeared a troupe of eight scaled quails, their cotton-tuft head-plumes bobbing in the breeze as they hurried along. We then followed a golden eagle up a sideroad for a couple of miles and were rewarded when it alighted in a bushy tree less than 100 feet away.

On the San Pedro River we found green-winged teal, water pipits, and killdeer to remind us of home. Near by, however, were black phoebe, Abert's towhee and ladder-backed woodpecker. A green-tailed towhee (very close-up) in a startled pose, with rufous crest and blackish-green tail raised, and mewing like a catbird, was only identified much later (from notes). Along a dry "draw" near the river we observed a magnificent ferruginous hawk almost overhead in a willow. On our return trip we were lucky enough to see a gray hawk swooping low. This silvery southern buteo is rare here in the winter.

We finished our day at the Sierra Vista sewage lagoons where we were surprised by 90° F desert heat. Here were shovellers, scaup, and ruddy ducks (120) along with eared grebe (2) and least sandpipers. Over the adjacent plains we saw three melanistic red-tailed hawks which appeared to be all black except for their red tails.

The next day (Tuesday, December 20) we drove north to the famous Sonoita Creek Sanctuary which we found almost birdless due to a high and quite chilly north-west wind. So we headed back to the Mexican border and got semi-lost in the Coronado Forest and the huge (30-mile) San Rafael Ranch before emerging on to the scenic route over Miller Peak (9500 feet). The precipitous road ascended in a long, gradual incline higher and higher into the mountains. There was no turning back. After reaching the peak, it descended in a series of breathtaking hairpin curves, to the valley thousands of feet below. We breathed again when we reached the gentle foothills and headed back to Ramsay Canyon. Just before the Miller Peak ordeal we had recorded our one new bird for the day, a rather unlikely female black-headed grosbeak picking gravel at roadside.

On Wednesday we left Ramsay Canyon for Portal in the Chiricahua Mountains. Near Douglas we saw two prairie falcons and a number of great-tailed grackles. A little further on the road jogged east, then north, and we were in New Mexico for 30 miles. In the afternoon (after having checked in to a sort of boarding-house in the hamlet of Portal) we made another unplanned venture into the high mountains, having taken a wrong turn somewhere northwest of Portal. Here we encountered fallen rocks, ice and snow on the narrow road to Rustler's Park (elevation 8500 feet). Luckily we found a place to turn just before the road turned into a cliff-hanger skating-rink. At these dizzy heights we glimpsed three Steller's jays flying along the sheer face of a granite cliff.

WINTER SOLSTICE IN ARIZONA cont'd ...

In the late afternoon (in less thrilling terrain) we drove along Route 10 and saw 36 lark buntings feeding in scrub prairie. At sunset several black-tailed jack-rabbits and desert cottontails darted across our path, and a small herd of mule deer passed in front of us in dignified procession. Then, in the fading light, we stopped to examine a fresh road-kill. It was a banner-tailed kangaroo-rat, a peculiar desert rodent with the long bottle-brush tail its name suggests.

Just as the sun came up on Thursday, while travelling Highway 80, we spotted a golden eagle alighting on a hydro pole, and at 75 feet were able to watch this splendid bird preening against a glowing apricot sky. A little farther on we came upon a dense flock of Brewer's blackbirds (about 500) gathered on the wires. At about 11:30 we reached Vail at the outskirts of which we discovered a delightful little church (St. Rita's of the Desert) set in the midst of a flourishing cactus garden. Hopping along the garden wall as if to greet us was a rare crissal thrasher, while inside the garden we found two curve-billed thrashers and a probable (but not listed) Bendire's thrasher. Six Inca doves were feeding on the ground behind the church, and an Anna's hummingbird was making frequent visits to a succulent shrub covered with rosy blossoms. Back in Tucson we revisited the environs of the Sonoran Museum and added a rock wren to our life list. At the end of the day we spoiled ourselves by checking into the luxurious Airport Inn Motel.

Our Arizona adventure was over. We had driven 900 miles through vast prairie grasslands, verdant upland forests, craggy mountains and boulder-strewn canyons. Having identified 92 species of birds, of which 35 were new to us, we were well satisfied with our winter solstice birding in Arizona, and entertained fond hopes of returning some day in the spring when, we are assured, the birding in these parts is "fantastic".

Naomi Le Vay

RUTH LEWIS

Ruth Lewis, who died in May, will be remembered by many for her warm smile and kind words. She had a special way of making a newcomer welcome, especially on field outings. Ruth and her husband, Eric, led many TFN outings, including the annual bus trip to Long Point to view swans and waterfowl. At one time Ruth was active with the Junior Club. During the 1960's she was a valued member of the Federation of Ontario Naturalists' staff. Ruth, among her many duties, handled inquiries about bird identification, books and equipment and where to go birding.

Ruth was an active member of the Bruce Trail Association and regularly attended Canadian Nature Federation conferences across Canada. Ruth faced a long, painful illness with great courage and unflinching good humour.

Jim Woodford

A VISIT TO ETOSHA PANS

In the north of Namibia (South West Africa) is a game reserve of more than twenty thousand square kilometers, established in 1907, formerly the haunt of big game hunters.

In the centre of this area is the main "pan". Millions of years ago it had been a large lake fed by the Kunene River which changed its course to the sea, causing the lake to dry up, leaving gravel and sand to a depth of 50 meters, with water only in the centre. In February and March each year the rains come -- 450 to 500 millimeters of it -- and the pan swells. Also, throughout the park the water-holes fill; later they dry up and the herds gravitate to the pan which is quite barren save for a few salt grasses in localized areas. The great gravel area is surrounded by grass, and beyond that acacia trees, although the park boasts many types of habitat.

No sooner had we gone through the entrance gate than we came across Leo the Lion and his latest paramour. He followed her around like a faithful swain with a gentle pussy-cat look on his face. When she got up and walked a few yards, he did likewise; when she sat, he sat. She looked very young, but he had several scars and a kink in his tail.

The road between the restcamps skirts the south side of the pan with some branching off. In the grassy areas we observed male springbok antelopes. Each stakes out a territory of roughly five to ten acres. It was the breeding season for springbok -- the time when the virile males leave the herd and take up positions on their territories. The herds must cross the territories to reach water in the pan. In crossing, the females are welcomed and serviced while the males either challenge or walk through with a submissive gait. In this way the strongest father the young. We saw the males locking horns while the gentle females waited.

On this day, though the waterholes were full in the park, we saw around the pan herds of springbok, giraffe, zebra, wildebeest, red hartebeest, impala and oryx. The concentration of game in the DRY season must be impressive! All the animals looked healthy and well-fed. The zebra were fat and we noticed how individuals had different markings --like our finger prints, variations on a theme.

The bird list that day was quite incredible and included secretary bird, martial eagle, blue crane, Kori bustard, black korhaan, and many more species (see Ed. Note 1.) On the road we met an ostrich family with chicks. The male (who has black feathers above and white below -- he sits on the eggs at night) ran off to the left spreading his wings in display to distract us. The female (who is pale brown to blend with the terrain -- she sits on the eggs by day) ran off to the right with the speckled-beige chicks. Ostrich breed in the gravel area around the pan. They do not bury their heads in the sand (that is a fallacy) but the female will lie flat on the ground when danger approaches and it is difficult to see her. The ostrich is, of course, the largest living bird and usually first in the bird books. (See Ed. Note 2.) To me, from a distance, the male birds looked like small acacia trees when standing still.

We were fortunate enough that day to see black-breasted snake-eagles, martial eagles, and tawny eagles -- all on trees in good view. Of course, everywhere are "LBB's" (little brown birds) which few bother to look at -- too busy admiring the big birds. (See Ed. Note 3.)

A VISIT TO ETOSHA PANS cont'd ...

The next day we were up early and our bird and mammal lists were even longer. We saw the gentle little dikdik, one of the smallest antelopes in Africa. Black-backed jackals skulked around. We also saw at least fourteen large Kori bustards. These huge birds are among the largest capable of flight. (See Ed. Note 4.) One delight was seeing a large white fluffy chick of the secretary bird peering over the rim of its nest of sticks in an acacia tree. The most beautiful birds in the park were the European bee-eaters (we watched them eating bees) and the lilac-breasted rollers. A fascinating horror to watch was a one-and-a-half-meter black mamba crossing the road, knowing that one bite would give you three minutes to live! It was too near the restcamp for peace of mind. (See Note 5.)

The next day, as we left the park, giraffe came to peer at us. One was chewing on a bone and had lost her whisk of a tail (in an encounter with a lion?)

Yes, I intend to visit Etosha again.

Joy Pocklington

Ed. Notes:

1. "Korhaan", a name borrowed from the Dutch for "blackcock" (a European grouse) serves as as Afrikaans name for the smaller bustards.
2. Although the ratites (birds without keels to support flight muscles) are usually listed first, they are by no means the most primitive of birds ... it took a long time for flightlessness to evolve.
3. The "LBB's" would be mostly female and non-breeding male widowbirds, whydahs, bishops, queleas, and a few of the weavers. There are also some sparrows (related to house sparrows) and some brown old world warblers and flycatchers.
4. For bird-size statistics, see TFN (324) 15, May 79: "The Great Birds of Kenya".
5. Accompanying Joy's articles is a list of species observed. Among insects listed were flying termites (in the millions) and 14-inch long millipedes of thumb thickness.

D.B.

I am myself confirmed in the view, formed during my long opposition to the Newfoundland harp-seal killing, that when it comes to wild-life slaughter, rational arguments either way seldom go to the root of the matter. Hatred or defence of wildlife slaughter is basically a "gut reaction". Either people feel emotionally that such activities are vile or they do not. It is like the white knight: "Everybody that hears me sing it - either it brings the tears into their eyes, or else - " "Or else what?" said Alice, for the Knight had made a sudden pause. "Or else it doesn't, you know."

(From VOYAGE THROUGH THE ANTARCTIC by Richard Adams and Ronald Lockley, published by Allen Lane, London, 1982.)

COMING EVENTS

COMING EVENTS

Civic Garden Centre

Botanical Drawing and Painting - 7 week course commencing Tuesday, October 9, at 10.00 a.m. The Centre is at 777 Lawrence Ave. East, at Leslie. Telephone 445-1552 for details.

Kortright Centre for Conservation

From October 6 to November 25, the Kortright Centre will feature an exhibition of wildlife paintings by Frank de Matteis.

Kortright Centre is on Pine Valley Drive, just south of Major Mackenzie Drive, west of Hwy. 400. Telephone 661-6600.

McLaughlin Planetarium

A show entitled "The Once and Future Moon" is at the McLaughlin Planetarium from September 21 to December 9. Call 978-8550 for further information.

Clive and Joy Goodwin

Saturday, October 20. Van trip to Niagara River and Falls.

8.00 a.m. - 5.30 p.m.

Thursday, November 1, 7.00 p.m. Attracting Birds to the Garden. Brentwood Library.

For information about these events, call 249-9503.

Claireville Dam Tour

Tour of the Claireville Dam, Sunday, October 14, 1.00 - 4.00 p.m.

Entrance to the Dam is on the west side of Indian Line (northern extension of Highway 427), a few hundred yards south of Steeles.

Ministry of Natural Resources - Wildlife Viewing Days

The Ministry of Natural Resources will sponsor wildlife viewing days conducted by the Goodwins. Call Angus Norman, 832-2761, extension 259, for details.

Migrating Birds - September 30, 10.00 a.m. - 4.30 p.m.

Toronto Islands. Take the ferry to Hanlan's Point.

Waterfowl - October 28, 10.00 a.m. - 4.30 p.m.

Humber Bay Park East

The Black Creek Project Fall Workday

On Saturday, October 13, a workday will be held on the Black Creek. Activities planned include shrub planting and more rock rip rap. Participants should come equipped with rubber or construction boots, work gloves, rain gear and a lunch. Any shovels, pails or wheelbarrows that can be brought along will be appreciated. Those interested in participating should come to the Agnew household, second driveway north of Steeles, west of Jane Street, on October 13 at 9.00 a.m. A raindate has been set for October 14 at the same location.

Further information may be obtained from:

The Black Creek Project, (or call John Maher at 592-5163 days; 241-3022 evenings)

Box 324, Station A, Downsview, Ontario. M3M 3A6

A meeting will be held to elect officers of the Black Creek Project on November 7 at 7.30 p.m. at the Mount Dennis Community Centre. Positions open include President, Vice-President, Secretary and Treasurer.

COMING EVENTS cont'd ...

Ontario Hiking Day

Since 1975 HIKE ONTARIO and its affiliated members have sponsored Ontario Hiking Day. This year it will be held on Sunday, September 30. For information about Ontario's Hiking Clubs (there are now 11), contact: Federation of Ontario Hiking Trail Associations, Box 422, Cambridge, Ontario. N1R 5V5.

LESLIE STREET SPIT (OUTER HARBOUR EAST HEADLAND)

Bus service to the Spit ended on Labour Day. The turnstile gate will be open until at least the end of the Thanksgiving Weekend. The specially-installed turnstile was first put into operation by the Harbour Commission last year. Parking for visitors arriving by car is provided inside the first gate at Leslie Street and Unwin Avenue.

Boaters continue to have car access.

The Spit is a construction site and visitors use it at their own risk.

The program for public use is jointly funded by the City of Toronto and the MTRCA and is administered by the THC.

Members are reminded that they may visit the Spit after the official closing by phoning the Toronto Harbour Commission (863-2035). It does not enhance the reputation of the TFN or of individual members to gain access by going around or under the fence. In the interest of good public relations we should cooperate with the THC in our use of the Spit.

THE WEATHER THIS TIME LAST YEAR

City of Toronto, October 1983.

October was a blustery month of changeable weather. It started out very warm, and reached a high of 24.7° on the third, the warmest October reading since 1971. As late as the 13th, the daily mean was 7° above normal, but much cooler weather after that brought the mean down to just below the 30-year average. Still, this was the second warmest October in the past 8 years. A low of -0.8° on the 30th was the lowest for October since 1976.

October was quite windy, wind speed averaging 18.8 km/h as opposed to the normal 17.7. High winds on the 14th and the 28th gusted to 90 km/h and more, causing damage to trees and some buildings such as greenhouses. Rain totalled 86.8 mm but there was not even a trace of snow. Total precipitation was 25.8 mm above normal but sunshine was also up at 7.7 hours above normal, the most sun since 1978. Thunderstorm activity occurred on three days and some of it was severe in southern Ontario on the 13th. The month's blusteriness can be partially attributed to very warm lake temperatures following the hot summer of 1983.

Gavin Miller

Royal Canadian Institute

FREE lecture series begins Sunday Oct. 14 at 3 pm in the Medical Sciences Auditorium. For details, please call 979-2004.

TFN MEETINGS



GENERAL MEETINGS

Board of Education Centre, 6th Floor Auditorium
155 College Street, at McCaul

Monday, October 1, 1984. 8.15 p.m. (Coffee at 7.30) *

Geography of MTRCA Watershed

- Alyson Deans, Planning Coordinator for Metropolitan Toronto and Region Conservation Authority.

We Torontonians are fortunate to live in a city containing three large river systems and many creeks. In her slide presentation, Alyson Deans will speak about these systems, show the impact of development, and explain current resource management programs.

Monday, November 5, 1984. 8.15 p.m.

Double Broods and Polyandry - the unusual mating system of the American Goldfinch - Dr. Alex L. A. Middleton, Associate Professor, Department of Zoology, University of Guelph.

* * * * *

GROUP MEETINGS

Bird Group

Wed. Oct. 17 Water Birds; Loons and Herons
7.00 p.m.

Location: 6th Floor Auditorium, Education Centre,
155 College Street at McCaul.

: : : : : : : : : : :

Botany Group

Thur. Oct. 11 Grass Identification Workshop
7.30 p.m.

Location: Room 207B, Botany Bldg., University of Toronto,
northwest corner of College and University.

: : : : : : : : : : :

Environmental Group

Thur. Oct. 25 Recycling and the Work of the North York Environmental
7.30 p.m. Control Committee - Ruth Johnson.

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

: : : : : : : : : : :

Junior Club

Sat. Oct. 6 Talk on Mammals
10.00 a.m.

Location: Planetarium Auditorium, immediately south of
Royal Ontario Museum.

* Copies of TFN publications, hasti-notes, prints of newsletter art and Christmas cards from the Federation of Ontario Naturalists will be for sale. As well, Mr. Charles Sauriol, author of "Remembering the Don" will be present with copies of his newest book "A Beeman's Journey".



TORONTO FIELD NATURALIST

published eight times a year by the Toronto Field Naturalists, a charitable, non-profit organization, the aims of which are to stimulate public interest in natural history and to encourage the preservation of our natural heritage.

Editorial Committee

- Helen Juhola (924-5806) #112 - 51 Alexander St., Toronto, Ont. M4Y 1B3
- Diana Banville (690-1963) #710 - 7 Crescent Place, Toronto, Ont. M4C 5L7
- Alexander Cappell (663-7738) #109 - 35 Cedarcroft Blvd., Willowdale, Ont. M2R 2Z4
- Mildred Easto (488-0962) #416 - 28 Broadway Ave., Toronto, Ont. M4P 1T5
- Emily Hamilton (484-0487) #407 - 3110 Yonge St., Toronto, Ont. M4N 2K6
- Florence Preston (483-9530) #203 - 368 Eglinton Ave. E., Toronto, Ont. M4P 1L9

Members are encouraged to submit notices, reports, articles up to 1500 words in length, and illustrations at least six weeks before the month in which the event is to take place or the material is required to appear.

Other Publications	
	Price
TORONTO FIELD NATURALISTS' CLUB:	
ITS HISTORY AND CONSTITUTION by R.M. Saunders, 1965	\$.50
CHECKLIST OF PLANTS IN FOUR TORONTO PARKS: WILKET CREEK, HIGH PARK, HUMBER VALLEY, LAMBTON WOODS, 1972	.50
TORONTO THE GREEN, 1976	2.50
AMPHIBIANS AND REPTILES OF METRO TORONTO, 1983	2.00
TORONTO REGION BIRD CHART, 1983	2.00
FIELD CHECKLIST OF PLANTS OF SOUTHERN ONTARIO, 1977	.25 ea. 5/\$1.00 or
TORONTO FIELD NATURALISTS' RAVINE	
SURVEYS	2.00 ea.
Survey #1 - Chatsworth Ravine, 1973	
Survey #2 - Brookbanks Ravine, 1974	
Survey #3 - Chapman Valley Ravine, 1975	
Survey #4 - Wigmore Ravine, 1975	
Survey #5 - Park Drive Ravine, 1976	
Survey #6 - Burke Ravine, 1977	
Survey #7 - Taylor Creek-Woodbine Bridge Ravines, 1977	
Survey #8 - West Don Valley, 1978	
A GUIDE TO THE JIM BAILLIE NATURE RESERVE, 1977	1.25
INDEX OF TFN NEWSLETTERS (1938-1978)	10.00
ANNUAL TFN INDEX, 1979, 1980, 1981, 1982	.25 ea.

Membership Fees

- \$20.00 Family (2 adults same address)
- \$15.00 Single
- \$10.00 Student
- \$15.00 Senior Family (2 adults 65+)
- \$10.00 Single Senior

Tax receipts issued for donations

Publication orders (add 50¢ per item for postage and handling), membership fees and address changes should be sent to:

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

ISSN 0820-683X