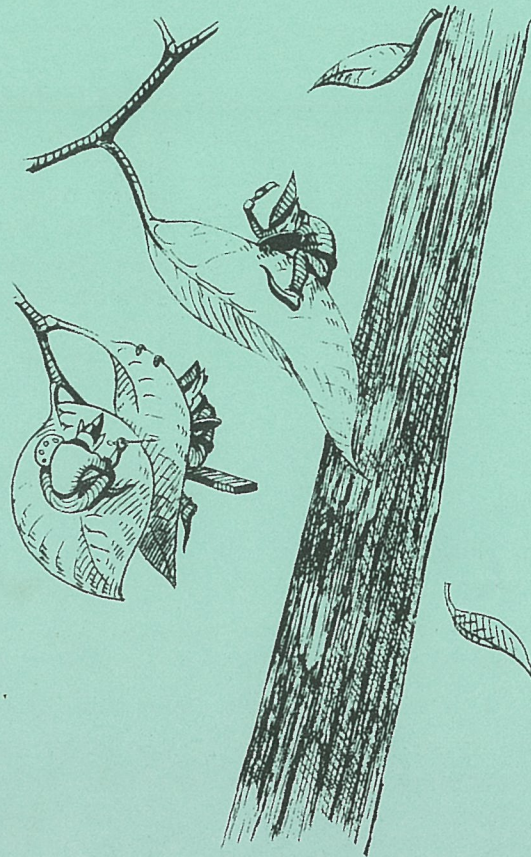


Doris

Halifax Field Naturalists Newsletter

SEPTEMBER-NOVEMBER 1983

No. 33



Halifax Field Naturalists

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MEETINGS- are held on the first Thursday of every month at 8.00 p.m. in the Auditorium on the ground level of the Nova Scotia Museum 1747 Summer Street, Halifax.

FIELD TRIPS - are held at least once a month.

MEMBERSHIP - is open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the Society or by writing to -- Membership Chairman, Halifax Field Naturalists, c/o Nova Scotia Museum.

Individual memberships	.....	\$7.00	per year
Family	"	.....	\$10.00 " "
Sustaining	"	.....	\$15.00 " "

This covers our fiscal year from January 1 to December 31.

Members receive the HFN Newsletter and notices of all meetings, field trips and special programs.

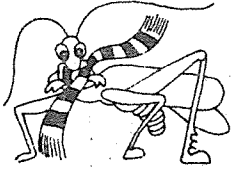
DIRECTORS for 1983 -	President	.....	Doris Butters
	Assistant to President	..	John van der Meer	
	Vice-President	.....	Bill Freedman
	Membership Chairman	.....	Colin Stewart
	Treasurer	.....	Bernice Moores
	Past President	.....	Anne Greene
	Directors	Pierre Taschereau	Edna Staples
		John Brownlie	Michael Downing
.....		Eric Malmberg	Aileen Meagher	
			Filip Volckaert	

NEWSLETTER -	.....	(Editor).	.....	Doris Butters
				Edna Staples
				Aileen Meagher

MAILING ADDRESS - Halifax Field Naturalists
c/o N.S. Museum,
1747 Summer Street, Halifax, N.S. B3H 3A6

HFN is a member organisation of the Canadian Nature Federation.
HFN is incorporated under the Nova Scotia Societies Act.
HFN NEWSLETTER is produced by courtesy of the Nova Scotia Museum.

*** Now that running a car is so expensive, it would be really nice if those members travelling in someone else's car on field trips would share the cost of gas. Thank you.



hfn news

HFN NEWSLETTER - A TRIBUTE.

It's great to get the HFN Newsletter delivered to my hand
 Such excellent reports on trips over fields or untrodden land
 In spring we get descriptions of the flowers then in bloom
 In Summer, stories of the seashore and clam-digging around noon
 In Autumn, reports on shorebirds and where the cranberries grow
 And the Winter keeps us busy regardless of ice and snow
 The Newsletter brings us tidings of the monthly meeting night
 Of interests outside Nova Scotia and narrated just right
 And thanks to the Museum who help us with the print
 and to everyone who contributes by using pen and ink.

Ricki Garrett-Smith.

After blushingly typing the above tribute to the HFN Newsletter, we feel a little guilty about bugging you all once more for contributions of all sorts. A great need for volunteers to write up reports on the field trips and to come forward with suggestions and assistance with programming. You know someone with an interesting natural history angle who might be willing to give a slide/talk or lead a walk? Or put pen to paper and write an article for the HFN Newsletter? Extra hands on the Tea-n-Cookies Committee would also be welcome. Pen and ink drawings, nature notes, shared experiences - all would be welcome.

We're getting towards the end of our HFN year and our Annual General Meeting will be held in February. Have you considered who you would like to nominate for office?

Did any HFN'er attend the Canadian Nature Federation Regional Meeting held on October 22 at the UPEI campus in Charlottetown, PEI? As the Piping Plover was the main topic of the morning sessions we would welcome an update on that subject.

Editor.

WETLANDS OF THE ATLANTIC PROVINCES -

The marshes, swamps, bogs and fens of our region are being studied and classified by the Lands and Integrated Programs Directorate for peat usage research purposes and to assist in gauging the potential environmental impacts of the development of these wetlands.

The peatlands of the Atlantic Provinces are of economic importance to the region as sources of fuel and horticultural peat. Our wetlands are also of great value for flood control, recreation, agricultural and wildlife habitation purposes. To convey information about the nature and importance of our wetlands a National Wetlands Working Group has prepared a book describing the kinds and characteristics of wetlands across the country. For more information on this contact: Harry Hirvonen, LIPD., Environment Canada, Atlantic Region 4th floor, Queen Sq., 45 Alderney Drive, Dartmouth NS., B2Y 2N6.

or phone: 426-4196

PARKS CANADA'S CENTENNIAL -

In 1985 Parks Canada will stage a year-long celebration of its one hundredth birthday. Banff National Park was the first park created in 1885; today Parks Canada operates 29 national parks and over 70 national historic parks and sites.

A citizens' committee, created with representatives from each province and territory, is now seeking proposals from members of the public on ways to celebrate the birthday.

To submit suggestions contact:
Lawrence Freeman, 1526 Dresden Row,
Halifax N.S. - Phone 429-0600.

IDENTIFYING PLANTS -

Pierre Taschereau, of the Institute for Resource and Environmental Studies, Dalhousie University, 1312 Robie Street, Halifax, has offered his help in determining plant species for those HFN'ers whose literature is limited. Call him at 424-3632.

He suggests that the specimen be brought in fresh or placed between sheets of newspaper weighted down to keep the specimen in shape.

It will be useful to have a second source of help to relieve pressure on the Science Lab at the Nova Scotia Museum, whose amiable staffers have been so quick and willing to assist us, despite their heavy workload.

Pierre's expertise should be of particular help for individuals who may wish to participate in Mini-surveys and who go for a ramble on their own.

NATIONAL MARINE PARKS -

Parks Canada plans to establish national marine parks in each of Canada's marine regions. A draft policy has been developed recognizing the unique nature of marine ecosystems and the multiplicity of jurisdictions and traditional activities in marine areas.

A copy of the draft policy is on the HFN Library Shelf and comments invited. Public consultations were held in November and hopefully in our next HFN Newsletter we will be able to give an overview. Meanwhile we hope many of you will read the draft and make comments to:

P.A. Thomson, Director,
National Parks Branch,
Parks Canada, Ottawa, K1A 1G2

PIERRE ATTENDS WORKSHOP -

Pierre Taschereau, research associate with Dalhousie's Institute for Resource and Environmental Studies was at the University of Maine recently for a four-day workshop.

The theme of the workshop "Natural Areas Protection", fits in closely with Pierre's expertise in ecological reserves. The sessions were sponsored by the Atlantic Centre for the Environment, a division of the Quebec-Labrador Foundation.



"ESTUARIES - WHERE THE RIVERS MEET THE SEA" -

A Report on the 1983 Canadian
Nature Federation Conference:
held in Sackville, New Brunswick

In mid-August, my wife and I put the dog in a kennel, foisted off the bird on relations, and set off for Sackville to attend the CNF's 1983 Conference. We had high expectations, although this was our first conference, and we were not disappointed.

The conference took place on the campus of Mount Allison University, which has a typical mix of college architecture and landscape, from old ivy-covered stone buildings to modern brick and glass 'functionals'. We stayed in one of the latter, a woman's residence. The organisers of the conference had thoughtfully put up temporary "MEN" and "WOMEN" signs on the washroom doors, but that didn't prevent one disoriented lady from watching me shave as she brushed her teeth at the next washbasin!

The major attractions, of course, were the field trips and the key speakers. Over 20 field trips had been arranged, most of them either before or after the formal sessions. They ranged from a one-hour trip to see short-eared owls and harriers on Tantramar marshes, to those lasting several days taking us as far away as Grand Manan Island. We were only able to attend a few of the trips, but everyone seemed to find them well-organised and rewarding.

In accordance with this year's theme, field trips and speakers focussed on various aspects of estuarine natural history, and if other participants were like myself, a little fuzzy as to what an estuary is, they had a pretty complete overview by the end of the conference.

The formal presentations took place in a comfortable auditorium across the street from the residence.

Conference organisers, Mary Majka and David Christie, kept us entertained between the speakers with announcements, exercises, and anecdotes. Outside the auditorium various displays were set up. In a nearby room the CNF/FON Bookshop parted us from our cash in return for all the goodies we see illustrated in their catalogues.



Back to the speakers. Rob Stephenson of Dalhousie University, set the theme by defining exactly what an estuary is, its value, and why they are so vulnerable. Topics by other speakers included the effects of the Fundy Tidal Power project upon life in the Bay of Fundy (among other things, a migrating shad might have to pass through the turbines 10-20 times before completing its circuit of the bay); the amazing fuelling stop of tens of thousands of semi-palmated sandpipers on the Fundy tidal flats; eagles and osprey in Maritime estuaries, and studies of other coastal seabirds.

Hal Mills, our local CNF Vice-President, spoke on environmental issues in the Maritimes, including of course the Piping Plover, acid rain, and herbicide spraying. Others talked about vascular plants in estuaries; raising mussels in PEI; Right Whales in the Bay of Fundy, and vagrant birds in Nova Scotia.

Most of the speakers brought slides or displays to illustrate their talks. We found the photos of Right Whales particularly impressive. In the lobby, after the presentation on mussel farming, we were all treated to a snack of hot steamed mussels. They were very good.

While waiting for one speaker to arrive, the irrepressible Mary Majka got us all to stand up by province.

There were over 200 people in attendance, with representatives from every province, the North-West Territories, the USA, and even St. Pierre and Miquelon.

For many, the highlight of the conference was Freeman Patterson's talk. Speaking from the front row, his calm, quiet voice told us how to obtain correct exposure in spite of what the light meter says. While this topic may have been a bit belaboured for those who had read his books, seeing his slides first-hand was unforgettable.

After two days of talks, we met for a closing banquet. Up to this point the meals were quite depressing - residence cooking and service at its worst. However, the banquet was really quite nice, and an air of camaraderie and good humour prevailed as we listened to the reading of winning entries in the limerick contest.

Following the banquet, we were treated to another Freeman Patterson presentation entitled "Namaqualand - Garden of the Gods". Namaqualand is not - as I feared - some dreadful acronym, but the name of a District in South Africa. For about two weeks every year, Namaqualand is virtually covered in flowers - the ground completely obscured by layers of blossoms. Freeman's pictures were almost stupifying in their beauty, and we could well understand why he would make a special trip to Africa just to photograph this remarkable event.

To sum up - the good: the speakers and field trips; the bad: the food. Mary Majka, David Christie and the rest of the New Brunswick Federation of Naturalists took on a large assignment and pulled it off magnificently. We really enjoyed ourselves and were glad that we shook off our lethargy and attended. We will certainly be back for more.

Peter Payzant.

P.S. TO CNF CONFERENCE -

Among the Resolutions passed at the 14th Annual General and Special Meeting of CNF held at Sackville, N.B., on August 12, 1983, two relate to Nova Scotia:

"CNF urges the Federal and Provincial Governments to protect

nest sites and undertake research on the endangered Piping Plover in those provinces where it nests!"

"CNF urges the N.S. Government to remove Chezzetcook Salt Marsh from consideration as a route for trunk Highway 107!"



ON THE SHELF

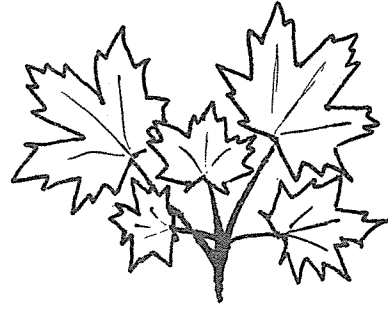
Checked the Library Shelf lately?

The most recent editions of newsletters from other naturalist groups are there and every one has items of interest.

Environment Canada UPDATE is now published in a new, smarter format by the Information Directorate of Environment Canada, their aim being continuing dialogue on environmental issues between the Department and concerned groups and individuals. The September '83 issue has several interesting items including one on "What Happened to our Winter" - read about El Nino, at least it will give you a conversation starter.

Nature Canada - latest copy is also on the shelf. A subscription to CNF and HFN would make a good Christmas present.

nature notes



THE CHEMISTRY OF FALL by Richard B. Fischer

(Extracted from an information leaflet in the New York State Conservation Department, Division of Conservation Education. R.B. Fischer is an Association Professor of Conservation Education, at Cornell University)

Nature holds many secrets and the most closely guarded are those nearest to life itself. One of the most mysterious - and spectacular - of plant life processes is the annual Autumn splendour of the dying leaves. Investigations have revealed a few clues to colour changes in leaves, but the greater mysteries of exactly why and how remains unsolved.

Through the microscope scientists have discovered some of the workings of plant life which cause leaves to change colour. They have seen that every leaf is made of hundreds of thousands of tiny, living cells - like hollow, thin-walled bricks filled with water. And inside each cell are blobs of coloured chemicals. The green chemical makes leaves green. And this green substance is the only thing known to man, which, with the help of light, turns water and carbon dioxide (the same gas that puts the 'fizz' in soda pop) into sugar food! The life sustaining magic of this green substance is still puzzling scientists.

Blobs of yellow and brown chemicals are also contained in the cells of green leaves. But these don't colour the leaves until the green chemical disappears.

People used to think frost caused Autumn colours, but we now know that green leaves get ready for the colour change long before Jack's arrival. Mature leaves have a 'cutoff' zone which you can see at the base of the leaf stem where it joins the twig. A tiny furrow or a different colour marks this separation layer of cells. Some of these cells slowly disintegrate and dry out. As they do, they choke the tubes that carry materials in and out of the leaf. Before the leaf falls, all the 'pipes' to the leaf are pinched closed and sealed. All Summer these open tubes carry materials to the leaf to replenish the green food making chemical as it is used up. Then in Fall, as the tubes close up, the leaf gets fewer raw materials and the green chemical is used up faster than it is replaced. With the green substance disappearing, the yellow substance becomes visible. Soon the green is gone and the leaves are yellow. You've seen this occur in aspens, elms and birches.

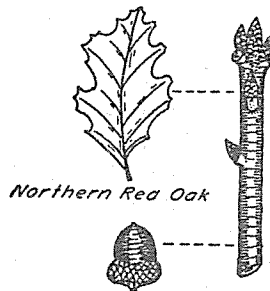
Clogged tubes also keep sugar, made by the green chemical, and wastes from leaving the leaf, and this favours production of a new substance which makes our most spectacular Autumn displays of reds and purples. The colour of this substance depends upon the

liquid in the cells of the leaf. If the liquid is acidic or sour, this new substance turns red and colours the leaf as you see it in red maples, some oaks, sumacs and even in the skin of some apples. Where the cell liquid is alkaline, as in some grape skins, ash leaves, dogwoods, gum trees and some oaks, this substance ranges from blue to purple. Since the colour of this substance depends upon the condition of the liquid in each cell of every leaf, the endless variety in an Autumn landscape is not surprising.

Plant scientists have learned that bright days and cool nights favour a colourful Autumn. As the pipelines to the leaves are closing up, bright days stimulate the remaining green

chemical to go right on making sugar. And cool nights - around 40 degrees - close the tubes faster, holding the sugar in the leaves and keeping out the raw materials for replacement of the green substance. An early frost actually spoils the Autumn beauty. It kills the leaves before their separation layers develop, so they turn brown and may stay on the trees long into Winter.

Finally the separation layer is complete and a slight breeze sends the dead leaves drifting earthwards. As they decompose, leaves return to the soil the life-giving elements that mysteriously produce the kaleidoscope of colour that has delighted and fascinated man through the centuries.



WOODY PLANTS IN WINTER - Some Clues to Identification: What to look for.

1. Persisting leaves or remains of fruit -
 - Red Oak and Beech usually retain some leaves over winter, as does the shrub, Leather Leaf
 - Alder has cones; Rhodora, capsules
 - Dead leaves on the ground tell of the nearby trees and shrubs that shed them
 - Witch-hazel capsules and October-blooming flowers
2. Smell and taste -
 - Bayberry, Sweet Gale and Sweetfern all have highly aromatic buds with a distinctive taste and smell when crushed
 - Yellow Birch twigs smell of wintergreen
 - Pin Cherry twigs have a musty, mouse smell
 - Amelanchier (Indian Pear) develops an almond odour a few seconds after being crushed (as do many of the Cherry trees)
 - Poplar bark with its salicin tastes extremely bitter
3. Twig cross-section -
 - Pith, the soft central strand, is commonly white and round
 - In Red Elderberry, however, it is red; in Oak it is star-shaped and in Alder, triangular
 - Vessels of the wood (that carry water up the stem) are very large in Oak and, like minute straws, one can blow air through them (sometimes!)

4. Bark -

- Striped Maple has smooth bark with white stripes
- Amelanchier bark is smooth and grey with darker, vertical lines
- Poplar bark is smooth in the younger parts
- White Ash bark is furrowed into firm irregular ridges that are broken across and intersect one another

5. Leaf scars, bundle scars and stipular scars -

- In the majority of woody plants the leaf scars are alternate, but in Maples, Ashes and Viburnums they are opposite. (They are opposite also in a few other groups).
- The number and arrangement of the bundle scars (visible as small projections or dots within the leaf scar) are important characteristics of the species
- Stipules may leave scars or vestiges that are characteristic of the species

6. Buds and Bud scales -

- Most buds are covered by small brown scales. These may be hairy, smooth or gummy; some are fringed with hairs like an eyelash; they may meet end on as in Speckled Alder, or overlap like shingles as in Sweet Gale
- The bud may be capped by a single scale as in the Willows or the bud may be naked (without scales) as in Witch-hazel and the Viburnums.

Pierre Taschereau



field trips

A WEEKEND VISIT TO KEJIMKUJIK
PARK - 13 and 14 AUGUST.

Boy, was I ever in a pickle! HFN were coming to Keji for a weekend outing and I was to show them the highlights of the park. The pickle was the weather forecast - rain, rain, followed by more rain for both Saturday and Sunday. I could just imagine the mounting excitement as the group sat in the Visitor's Centre all weekend waiting for the floods to subside. I suggested a

postponement of the trip but Doris simply replied "We'll be there, John, and don't worry about the rain." Right. Why should I worry? I'm not the type to let 24 hours of continuous rain on Friday ruin my weekend plans.

A small group of ten entered the park about noon on Saturday under a low overcast and over wet grass

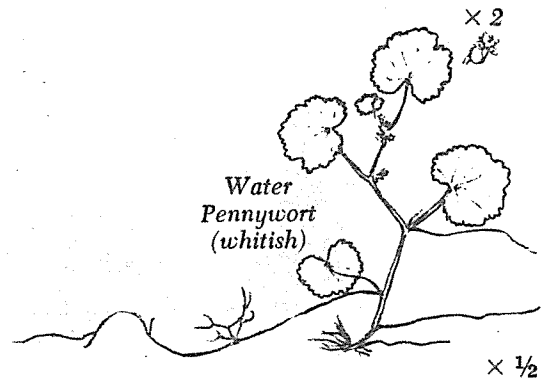
(from the previous hour's rain). I cringed to note that not one wore a raincoat. Off we trundled into the cool, dark, dripping shade of a Hemlock forest, where Millie Evans (a park naturalist) gathered us around an ancient graveyard. After weaving tales and legends of Micmac Indians and local fishing guides, she took us out onto the slabs of grey slate slanting down into the lake, where long gone Micmacs and early settlers had etched in the soft rock the figures of animals, people, ships, religious symbols and ceremonial dress. We crawled on hands and knees from one drawing to the next until the last faint figure disappeared at the water's edge.

Here Minnie left us to botanize along the shoreline. I noticed the sun oozing through a thin patch of cloud, and cautiously removed my raincoat - but kept it handy, not to be fooled by an isolated patch of thinning cloud. Pipewort and Water Lobelia were growing in the shallows; Creeping Buttercup, Rose Pogonia, Meadow Beauty and Bladderwort grew in the moist sand. Many of these plants found along the shores of Keji Lake are members of the coastal plain flora - a group of plants normally found further south along the Atlantic coast. The rarest plant in the Park is the Water Pennywort (*Hydrocotyle americana*); we made a special trip to one of its few stations in Keji.

The enthusiasm of HFN'ers is extraordinary. When we happened upon a small hopping Brown Toad, a normal person watching from nearby would have thought we had discovered a diamond. Out came the magnifying glasses and everyone huddled around to observe this rather plump little hopper more closely. She was about as long as my middle finger is wide and had probably only just left the water a week or so earlier. Bright reddish-brown spots decorated her back. She hopped over the edge of my hand and tumbled to the earth, lying motionless on her back, then in a few seconds she rolled over and hopped away to explore the forest.

By now it was time to head back to Lesley's cottage where nine of the group were 'kitchen-camping' overnight. And guess what? The sun had been shining from way back among the buttercups!

After supper the group re-formed at the outdoor theatre where Millie presented "Herstory", a slide and animation presentation on the important role of women in the history of the area. Millie's energetic performance on stage was matched only by the brilliance of the Perseid meteor shower observed by a few of the group much later that night. Very few, in fact. The rest sat in the velvet dark on the stoop at the back of Lesley's cottage as long as they could, only to succumb to sleep before the stellar performance. After all, it HAD been a long day.



Sunday was beautifully sunny all day. Making an early start we walked along the Mersey, stopping at a bend in the river to watch the tumbling water and question the white froth swirling in the eddy. Not pollution, we were told, but the result of acid in the soil leaching into the water and being whipped to a froth by the action of the fast-moving river. Our walk along the Mersey, up through a hillside stand of Hemlocks, and among the Beech trees at the top of the drumlin, provided an opportunity to learn about a wide variety of plants. David Lawley, a Park naturalist and HFN member, introduced us to plants that move great distances, plants with invisible seeds, plants with doll's eyes, and antique rock from an African mountaintop.

HALIFAX FIELD NATURALISTS

c/o N.S. Museum, 1747 Summer St., Halifax, N. S. B3H 3A6

LAWRENCETOWN - WEST MARSH SURVEY - (HFN MINI-SURVEY #4)

Date:

Ecosystem:

Type of Survey:

Transect No.:

Weather:

Station No.:

Time:

Tide Levels:

Species

Abundance

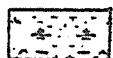
Remarks

LAWRENCETOWN, WEST MARSH

WOODLANDS



MARSH



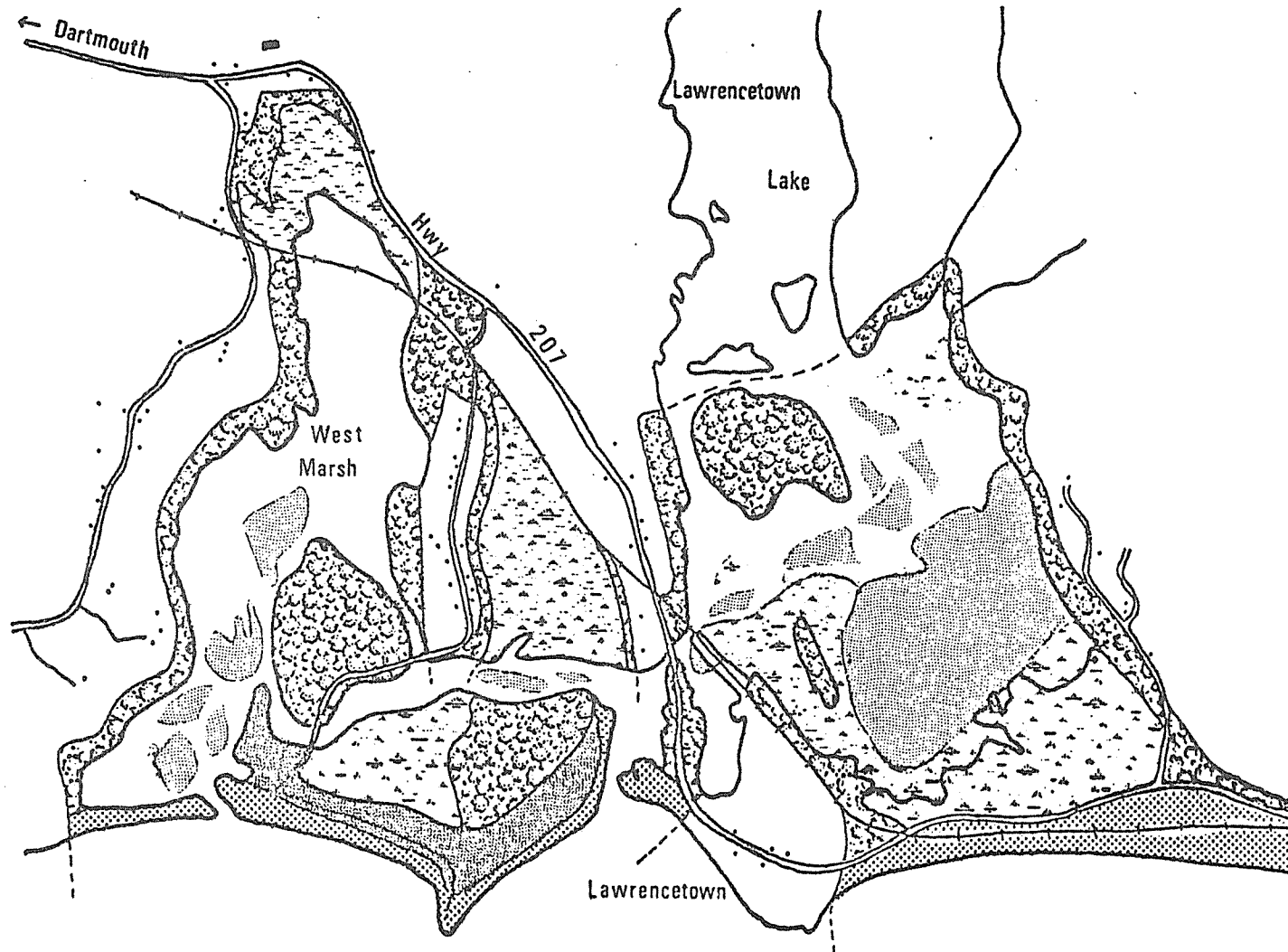
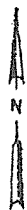
SAND BEACH



STABILIZED DUNES



TIDAL FLATS



Atlantic Ocean

We left the Beech and headed for the beach to eat a quick lunch before embarking on a leisurely paddle by canoe and kayak. We ventured up-river to smell the fragrant water lilies and search for rare turtles among the islands of Bluejoint Grass. The lead canoe did glimpse a Blandings Turtle as it swam beneath their canoe. There were plenty of Painted Turtles hauled out on logs to sun themselves. Again I was reminded of the weatherman's now obviously incorrect forecast of rain all weekend.

After our canoe trip there was enough time for a swim in the lake and a bit of sun-soaking on the warm sand before turning our thoughts towards the homeward journey. Now I know why Doris said not to worry about the rain.

Where HFN goes the sun is sure to follow (cross fingers!). On Monday morning I awoke to a damp, drizzly mist, and found myself wishing the HFN could have stayed longer.

John Brownlie

CONRAD'S BEACH -

Date: Sunday, 18 September 1983
Participants: 12
Site: Conrad's Beach
Weather: Overcast in the morning, clearing/clear in the afternoon, 20°C, strong breeze from the SW
Leader: Linda Morris

This trip was organised to launch a new version of the Conrad's Beach mini-survey; an earlier attempt having ended in failure due to lack of participation. Linda Morris, the survey organiser, optimistically ignored the downpour of 7 a.m. and greeted 11 other intrepid souls at the parking lot of the NSM at 9 a.m. by which time of course the rain had stopped and our faith was justified.

We headed off to the beach where Linda divided us into three teams, each of which was to be responsible for examining one of the terrain types to be found at the site.

Birders went off to the salt marsh under the guidance of Fulton Laverder; Linda led another group along the back of the dunes and into the spruce thicket and the rest of us tagged along with Philip Volckaert to the beach to see what we could find. (Lists of what we did find will be included in the survey report). Note was made of anything we could identify and anything we couldn't we collected for later identification.

The group reassembled at the spit of land between the two beaches that comprise the Conrad's Beach complex, and proceeded to enjoy a leisurely lunch in the sun. Linda took this opportunity to introduce the purpose of the mini-survey (*see details at the end of this report) and we then went over the specimens collected in an attempt to pick each other's brains and thereby reduce the size of the pile to be taken back to the Museum for identification.

Heron



After lunch people strolled about, waded, and watched a brave(?) group - not HFN'ers I might add - play, fully clothed, in the surf for nearly an hour! Most of the group made tracks for home about two o'clock, but four sunworshippers basked happily on until four o'clock - watching the breakers rolling in and marvelling at the occasional rainbow hanging in the spray. For this languid lot the afternoon ended quite satisfactorily with tea and goodies at the MacDonald House Tearoom, perched on the cliff between Conrad's and Lawrencetown beaches.

*Conrad's Beach Mini-Survey.

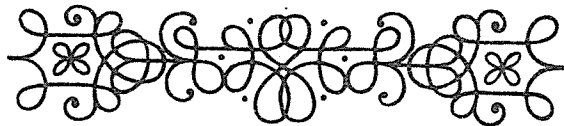
The purpose of this year-long survey is to prepare a report for Lands and Forests which will hopefully be of help to them in planning for the conversion of the site into a park. Conrad's, beside being an appealing place to walk or swim, is an important breeding area for birds. (The 7 pairs of Piping Plovers nesting there this year successfully fledged 11 chicks - due in part, perhaps, to the warning signs posted by L. & F. around the breeding site). It will take some careful thought to set up a park in

which both recreation and conservation demands are met, and this is a good chance for the HFN members to have some input at the planning stage.

The report will include a history of the beach's use and development, a taxonomic inventory of the flora and fauna presently found there and suggestions for future use. The success of the project will depend on the participation of the club members and everyone, no matter what their level of expertise, is encouraged to take part. Even the occasional visitors out on a Sunday stroll can keep their eyes open and report what they see to Linda. Longer term commitment, however, could involve thinking up ways of interpreting the site's natural history to the public, documenting present beach usage by local inhabitants or carrying out such projects as monitoring snow depth changes or beach erosion during the winter. The possibilities are endless, but the key idea is that everyone can have input, at no matter what level.

By the way, there will be another Conrad's Beach walk in the spring. Anyone interested in getting more information can contact Linda Morris at 463-3150.

Georgina Blaylock.



IMPROMPTU FIELD TRIPS -

Ricki Garrett-Smith organised an impromptu 'leaf-kicker' to Cape Split at the end of October. Eight members took part and although there is no report yet as to what they spotted at that season, we understand that it proved to be an excellent outing.

Because of the weather being so foul on Sunday November 6, Eric Cooke (who now lives in the LeHave area), was forced to establish a precedent and cancel an HFN field trip. However three hardy ladies did show up

at the NSM, waited awhile for the current storm to ease up, then took a walk around the Frog Pond and along the hiking path as far as the Nova Scotia Yacht Squadron property. They then went on to Harrietsfield to Rocking-Stone Park, as the rain at that time was holding off. However, it was not a good day for 'findings' and the weather did eventually force them to give up.

We feel that Bernice, Ricki and Nancy do deserve an accolade!

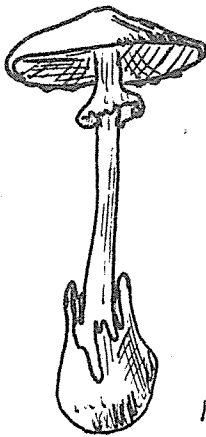
Editor.

MORNING WALK IN THE AUTUMN WOODS -

Date: Saturday, October 15, 1983.
Site: Frog Pond, Purcells Cove Road, Jollimore
Guide: Pierre Taschereau
Participants: 16 - later joined by a couple living in this area
Weather: Sunny, clear, autumn cool, light SE wind

Just a perfect morning for an October walk - cool, bright, gentle breeze plus the presence of a thoroughly knowledgeable naturalist and a short, easy drive from the NSM at the comfortable hour of 9.30.

We began our walk right at the parking lot, where an interesting outline of the trees was described by our guide. Among them were the trees beloved of artists because of their sweeping branches, the White Pines; Red Maples, and Poplar. The Trembling Aspen leaves create the delightful rustling sounds in the woods because of their vertically flattened, springy stems, as long as the leaf is wide, which together with the soft, flat leaves catch the wind to make the whispering noises called "women's tongues".



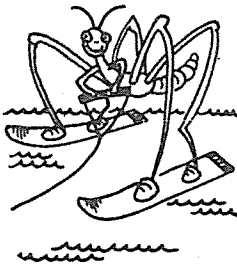
Amanita

Also in the parking lot we saw male and female Japanese Knotweed. Introduced by the early settlers, these bushy plants which grow from 6-10 feet in a season, were used to hide outhouses or separate properties. In early Spring their new shoots may be peeled, cooked and eaten like rhubarb or asparagus. But if allowed

to grow beyond 8-9" at most, the stems are too fibrous to eat. The wider hollow stem closer to the roots was said to be used for candlemaking in the early days of settlement.

Another plant noted was Coltsfoot, now only in leaf, its bright yellow dandelion-like flowers are the first to bloom in Spring. Coltsfoot leaves may be used to make candy, tea or seasonings, but was perhaps best known as a cough medicine, as its Latin name implies - *Tussilago farfara*. A common plant in Nova Scotia on all disturbed soils.

Among the findings along the path around the Pond were White Pine needles, which grow five to a cluster and are dropped continuously; Lambkill (with one belated pink bloom); Canada Holly with its colourful but inedible berries; Witherod (or White Raisin) its pliant shoots still in use for weaving eel pots etc.; Witch Hazel in flower, its pale yellow, thread-like petals almost unseen beneath the rounded leaves (a soothing, healing, astringent lotion is still being distilled from the bark); Huckleberry with what looks like a spattering of shellac on the shiny underside of its leaves; Indian Pear, with berries useful for making fruit pies, jellies, etc., has so many common names it should perhaps be called by its Latin name *Amelanchier canadensis*; Bayberry, with tiny golden resin drops on the underside of the leaves; False Holly; Wintergreen with bright aromatic berries and leaves; Wild Lily-of-the Valley; the downy-headed seeds of the Whorled Aster; Purple Asters still in bloom; Poison Ivy distinguished by the main vein to one side of the three leaflets with their pointed tips, the middle leaflet on a long



The only insects we saw were in the stream, Water Striders busy hunting smaller insects. In the larger part of the Frog Pond a flock of Mallards and Black Ducks quacked an accompaniment to our walk.

Pierre blew bubbles in the stream through a section of Red Oak twig to demonstrate how large are the cells which carry water from the ground into the leaves. This open texture accounts for the lovely oak grain prized in furniture.

In another demonstration Pierre showed how the Soft Rush (*Juncus* sp.) was used in the past as a source of light. The stems, dried and peeled, dipped in oil or animal fat were lit and placed in small clip-type holders. The Indians once made mats of *Juncus* to pad and insulate teepee floors.

This walk provided much interest for its participants within a relatively short space of time.

Fran and Brechin Maclean.

stalk; a Death-Angel mushroom (one of the deadly *Amanita* spp.); Bitter-sweet Nightshade, inedible but not the Deadly Nightshade found in England; small clumps of Polypody Rock Fern; Rock Tripe, a lichen often used in making purple-red dye; Wild Sarsaparilla with purplish black berries, the leaves and root still widely used medicinally; Sweet Gale, partly identified by minute golden glands on the leaf back; the huge cow-tongue shaped leaves of Clintonia; and clumps of Bur-reed with its shiny green spiked ball seed cases.



SHOREBIRD WALK TO HARTLEN POINT-

Date: Saturday, August 27, 1983 Participants: 4
Location: Hartlen Point etc., around Eastern Passage
Weather: Cool, cloudy, but with sunshine later in the day
Leader: Fulton Lavender

On August 27, three HFN'ers and a visitor from Ottawa, all eager to learn about shorebirds, were led on an outing to several birdwatching spots.

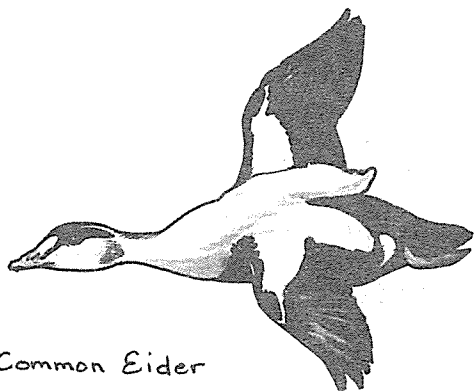
Our first stop was at Hartlen's Point, where within sight of avid golfers, we saw Double-Crested and Great Cormorants, at least four species of Sand Pipers (Semi-palmated, Pectoral, White-rumped and Least), Ruddy Turnstones, and Osprey. Out on the water a little distance we saw Common Eiders and Common Loons. And we learned a little about the myths of the haunted Devil's Island.

We walked through a Cranberry bog to a small, sheltered bay at the Point, from which vantage point we saw a Great Blue Heron sitting atop a pine tree across the bay. Suddenly a flock of birds were put to flight, and Fulton spotted two Bald Eagles coming in from a distance. It took a little while for we initiates to spot them, but once we did, we trained our binoculars on them to watch their circling flight.

Hundreds of Starlings observed on a power line were of minimal interest to Fulton, but made a great photo study for those of us with cameras.

Our next stop was on the west side of the Point. In the grassy area near the shore we saw Song and Short-tailed Sparrows and a number of warblers taking shelter in a rusted out bed. Noted were Yellow, Chestnut sided, Myrtle and Yellow-throated Warblers; and, unusual according to Fulton, we spotted an Alder Flycatcher out in the open.

We then hopped into our cars to drive to an old piggery just above Russell Lake. In former times the birds flocked to the piggery area as a nutritive source. They still flock there, even though the area is now slated for a housing development. Over the lake we saw Bank Swallows flying; Cape May, Bay-breasted and Tennessee Warblers were identified in the trees nearby, either by their song or by a sighting.



Common Eider

Then back into the cars and on to Conrad's Beach, with a brief stop at West Lawrencetown Marsh. There we saw a Lesser Yellowlegs, a Blue-winged Teal, Stilt Sandpipers and a Lesser Golden Plover. The latter had had its breast stained orange as part of a study of James Bay shorebird migration patterns.

At Conrad's Beach we walked along the beach to a small, raised grassy area suitable for a lunch break. By this time the sun had broken through the clouds and we were able to bask

like lizards on a rock. As we sat and lunched, we also kept our binoculars handy to catch sight of interesting birds. Many, many sandpipers were resting on a sandbar out in the water. Among others, we saw a Wilson's Phalarope and a Hudsonian Godwit swimming along in close proximity. We were given a test by Fulton when a number of different species of sandpipers were spotted together. I believe we were able to identify two out of four.

As we walked back along the beach we spotted a Piping Plover across the way on the grassy slope of a dune. This was assumed to be one of the brood hatched at the beach in Spring. We were pleased to note the signs still in position which had been erected earlier in the year explaining how plovers nest and asking that the area be left undisturbed.

On the way back along the beach we saw a number of Sanderlings and more Sandpipers. By this time the tide had turned and the birds we had watched while we lunched had all disappeared, following the receding water and continuing their foraging. Fulton had timed this part of our outing so that we would arrive just before high tide when the shorebirds collect on the sandbars - to disappear like magic immediately after the water begins to recede.

It was an information-packed day, and we returned home with our brains reeling from an overdose of bird names and characteristics. The full list of 69 species is rather too long for this report, but the highlights have all been mentioned. Thanks are very much due to Fulton for his guidance and patience with us neophytes.

Nancy Sherwin.

TRIP TO HAYE'S CAVE, MAITLAND-

Date: Sunday, 25 September 1983
Place: Haye's Cave and area in South Maitland
Weather: Sunny, wind light
Leader: Fred Scott, N.S. Museum Participants: 30 - including 10-12 friends of NSM

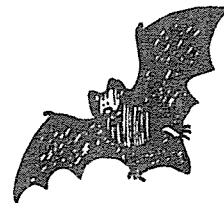
Both the Little Brown Bat (*Myotis lucifugus*), the most common bat in Nova Scotia and in all of Canada, and its much rarer relative the Big Brown Bat (*Eptesicus fuscus*), require a dark, sheltered location with a constant temperature some what above freezing, and a constant, high humidity, in order to survive the winter. In summer a hollow tree, or even a space behind a shutter or a shingle, can provide darkness and shelter adequate for a bat during the day.

Nursery colonies make use of attics, church steeples, small mine shafts - any suitable shelter large enough to accommodate from a dozen to several hundred females and young. But in the winter most of these locations become too cold. Large caves, capable of maintaining stable conditions over the winter, are needed. These are not common, and bats may migrate hundreds of miles to get from their summer foraging grounds to their home wintering places. The many thousands of bats in a dormant state in such a place during the winter may represent the population of hundreds of square miles of country.

Popular studies suggest that there should be a number of bat hibernation caves in Nova Scotia, but the only one known is Haye's Cave in South Maitland. On September 25 about 30 persons (HFN members combined with a group sponsored by the NSM) explored this cave under the guidance of Fred Scott of the Nova Scotia Museum staff, who is currently studying its Chiropterine population.

Accordingly, your faithful correspondent, boarded the Museum

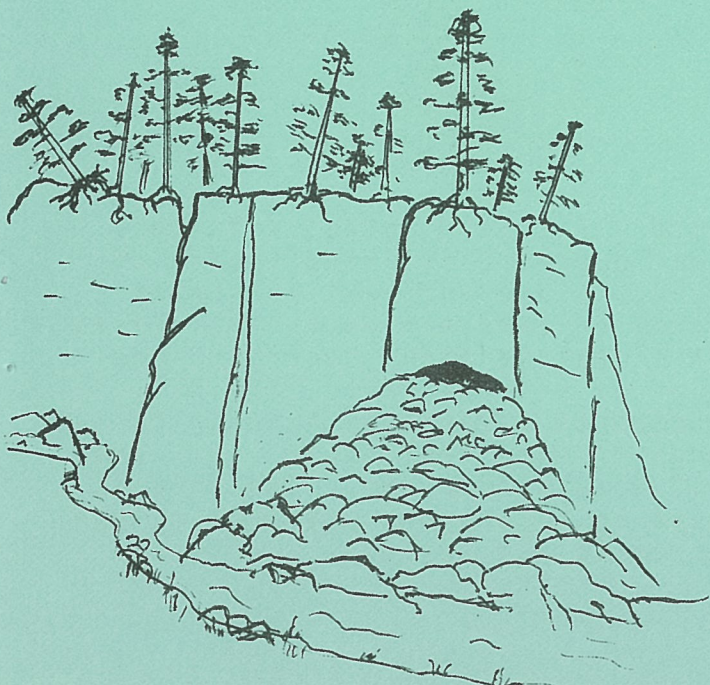
bus at 9 o'clock on a beautiful fall morning and joined a hardy group of hikers. We spent a pleasant hour discussing the economic and population density considerations related to hiking in New Zealand, and poring over illustrations in Banfield that would not have seemed out of place in Froud and Lee's Book of Faeries, while Fred drove to the area of the cave. Others arrived by car and we regrouped. We approached the banks of the mighty Five Mile River with a spirit of confidence and mutual co-operation, and effected a crossing with no losses and few minor incidents. A walk through the woods, a climb, a squeeze past a hornet's nest, and a final scramble over a slope of loose talus brought us to the tiny cleft in the base of a massive white cliff which is the entrance to Haye's Cave. The rock was soft. Large chunks could be pulled away by hand. The cave mouth has changed considerably over the years and it seems unlikely to remain open indefinitely unless deliberate means are taken to preserve it.



We had decided to explore the cave in two groups, and those who were to go first donned construction helmets (against the probability of falling rock from the cave ceiling), squeezed through the cleft, and one by one disappeared from sight.

Haye's Cave was formed by an under-ground flow from the Five Mile River. It contains a series of ponds, fluctuating greatly in size, fed by underground water, which helps maintain the temperature and humidity that makes it so valuable to the bats. The same flow has resulted in a number of sink holes and ponds a little farther on. The whole area is bounded by dramatic limestone cliffs - all in all, the place abounds in interest and variety, and while this writer climbed the cliff above the cave and sat idly gazing at the scenery and hoping to spot a hawk or two, several other members employed themselves more ambitiously. I leave to them a description of their explorations.

At length Mother Earth gave up the field naturalists she had swallowed, and we decided to have our lunch before letting her have a second chance at hers. It was an hour later that I myself joined a second group of hard-hat types, and fortified with a good meal and a sip from Doris Butters' ever-present flask (not so dissipated as it might sound - contents are unfermented, pure wild-fruit juice and made every fall by Lesley B.), we crossed the river again and lowered ourselves into the cave.



It was not actually uncomfortable inside, though the dampness and coolness, and especially the stillness, were in sharp contrast to the atmosphere we had just left behind. The sound of my boots seeking uncertain footing in the water and mud, seemed strangely loud and clear as we made our way over the mucky ground. The cave floor sloped into dangerously cold ponds. The first was said to contain fish, though we saw none. I brought up the rear, and watched our procession of assorted types of lights bobbing and wobbling along into the darkness. Only a feeble illumination reached the immediately surrounding areas of the cave walls and ceiling.

The temperature and humidity are not uniform throughout Haye's Cave, and it is not until past the first pond that good conditions for bats are found. Here we began to search with our flashlights on the ceiling a few yards above us. We found occasional soft, furry bodies dangling black and tiny against the masses of grey stone. As we went on, they increased in numbers until hundreds could be seen from one spot. Some were hanging singly, others hung in rows along cracks, still others hung packed close together in clusters so that they were impossible to count. Moisture condensed on their fur, as it must in an area with a humidity suitable for them. They appeared short in body and heavily built in the neck and shoulders compared to mouse sized mammals we are used to seeing closely. With wings folded tightly for roosting, the long thin bones which support the membranes are more conspicuous than the membranes themselves. The final impression is that of a stocky, dark, shiny, wet and rather breakable huddle, an odd combination of robustness and wretchedness. They could be seen breathing, and occasionally one would fly. They did not seem alarmed by our lights,

and Fred assured us that occasional visits by naturalists did no harm.

This was before the full hibernation season of course, and most of the winter population of the cave had not yet arrived. What we were seeing were local bats and early arrivals who were using the cave as a daytime roost, going out at night to forage. Those we saw were probably Little Brown Bats. Some of us diligently followed the deeper crevices with our flashlights in the hope of finding a Big Brown Bat. These like to crawl into a crack in the rock rather than merely hang from a convenient grip by their back feet. But any we found were declared to be *Myotis* by our guide, after close scrutiny. (*Eptesicus* has larger ears).

As the cave tapered off at the far end, conditions changed again and the bats thinned out until no more were to be seen. There is supposed to be a chimney at the far end - useable at the expense of considerable effort, as an exit, but most of our members felt that adequate challenge was offered by the opening we had already used. We retraced our steps, climbed out into the sunset, and left Haye's Cave to creatures more in tune with it.

A bat is usually a rapid, fluttering creature on a still, summer evening, generally gone by the time we fully realise it is there. Our thanks to Fred Scott for a rare, close look at these strange, elusive beasts.

Michael Downing.

P.S. A few of us hiked up and over the top of the cave. At the very top we discovered a most unusual almost fairy-tale-like land. We were surrounded by a landscape composed of conical depressions (sink holes) in the ground. These were about 3 metres deep and placed side by side so that only a narrow, winding ridge of white rock and knarly tree roots separated the pits.

Little, tiny people live in furnished burrows under the tree roots where they sip herbal tea and watch naturalists balancing along the narrow ridges.

John Brownlie.



 NEW FINANCIAL YEAR STARTS JANUARY
 1984 - DON'T FORGET YOUR DUES.

WELCOME TO NEW MEMBERS -

D. and C. MacNeill
 A. Lake
 P. Service

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Note - A "Field Notes" file has been opened containing copies of handouts and information sheets received before a walk, full lists of flora and fauna observed and maps of several areas. The N.S. Museum is interested in such listings as they feel their lists are not always complete. The file is open to anyone who may wish to see it or to add to it.