

# HALIFAX FIELD NATURALISTS NEWSLETTER

c/o Nova Scotia Museum  
1747 Summer Street  
Halifax, N. S.

July/August '76

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JULY/AUG 1976

NUMBER SIX

Meetings are held on the third Tuesday of each month, at eight pm; in the Auditorium on the ground level of the Nova Scotia Museum, 1747 Summer St., Halifax.

Field Excursions are held at least once a month, or as can be arranged.

Membership is open to anyone interested in the natural history of Nova Scotia. Membership is available at any meeting, or by writing to Membership, Halifax Field Naturalists, c/o the Nova Scotia Museum. Fee is two dollars yearly, with a family membership at three dollars. Members receive the newsletter and notice of all excursions or special programs.

## Executive for 1975-76

President .....	Paul Keddy	422-7238 evenings
Secretary .....	Winnie Cairns	422-5581 evenings
Newsletter .....	Debby Burleson	429-4610 daytime
Program .....	Scott Cunningham	
	Nan Hennessey	
	Don MacDougall	
	Mary Primrose	

## Mailing Address

Halifax Field Naturalists  
c/o Nova Scotia Museum  
1747 Summer Street  
Halifax, N. S.  
B3H 3A6

HFN is a member organization of the Canadian Nature Federation



## Coming Up with HFN

Summer's over! The starlings have their winter spots, rowan trees are ripening, and I pray at night for my tomatoes to ripen before the frosts. It's been a busy season (thus the lateness of this issue), but serious September should put us all back on a schedule. And speaking of schedules, ...

- September 21 -- regular monthly meeting. Note that to take advantage of facilities offered by the Museum we have changed our meetings to the third Tuesday of each month, rather than the second. This month come meet Scott Cunningham, speaking about Mushrooms in Nova Scotia. Eight pm in the Museum auditorium. Come early--it's a popular topic.
- September 26 -- Sunday field walk with Scott, to search out Mushrooms. Meet at 10 am in the Museum visitor parking lot, and bring lunch.
- October 2 -- McNab's Island trip with the N. S. Bird Society. Transportation provided for a small fee. Call (two weeks in advance) Ross Anderson, 463-4188 if you would like to go.
- October 23 -- Afternoon trip to Conrad's Beach, one of our favourite nearby spots. Meet at 1 pm in the Museum visitor parking lot, and dress warmly.
- October 19 -- monthly meeting. Winnie Cairns will tell us about her summer with the Piping Plover shorebirds of Cadden Beach, Shelburne County.

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## 'Naturally' interesting at the **Museum**

- September 25 -- Seaweed Walk. An afternoon trip with transportation provided, but register early (starting Sept. 17).
- September 17 -- Universal Illusions, an evening of talk and stargazing with the Royal Astronomical Society. Telescopes provided. 7 pm.
- October 6 -- Troubleshooting for the Snap Shooter, a chance to get photography advice from members of the Guild. Pre-register.
- October 20 From our collections--Seashells, with Dr. Derek Davis. 8 pm.
- October 27 From our collections--Rocks and Minerals, with Bob Grantham. 8 pm.
- Collectors' Night--November 10--bring in your shells or rocks (or textiles or chairs) and discuss them with Museum Curators.

As we assembled on the Shearwater wharf at Eastern Passage, our boat pulled alongside the pier. After a short ride we reached the eastern side of McNab's Island, one of the proposed regional parks.

Roger Pocklington gave a brief introduction on the history of the island, noting that at one time it was called Cornwallis Island, but became McNab's when the ownership changed. Much of the island was farmed and an attempt at a self-sustaining community was made. Near the center of the island lies a small graveyard where representatives of several generations of McNabs are buried.

During World War II, the Armed Forces had an active base on the highest ground overlooking the entrance to Halifax Harbour. Although now in ruins, many of the features of the base still remain.

In the morning we followed a trail towards the south end of the island, ending up in the old rifle range. On the way, we noticed about 40 species of birds, including Mourning Warbler, Redstart, Purple Finch, Pine Grosbeak and many others. According to The Birds of Nova Scotia, the Mourning Warbler is rather rare in this part of province, but is more abundant in northern N.S.

On the return trip, several species of plants, typical of the moist conditions through which we were walking, were pointed out. We even managed to catch a Pink Lady's Slipper in flower.

We then ate lunch at the abandoned forces base, enjoying a spectacular view of the harbour entrance.

In the afternoon, we toured both a fresh and salt water marsh on the west side of the island. A nest of a Spotted Sandpiper was discovered amongst the marsh grasses. We then walked out to the lighthouse. The light is no longer manually operated although the house nearby is occupied. The bright pink and purple flowers of Beach Pea bordered the track. Glasswort seedlings (good in salads) were densely clustered in the seaside marsh.

We followed a road toward the north end of the island for a short distance until it was time to head back to the boat. While resting comfortably under coniferous trees waiting, we finalized a bird checklist for the day.

On this one island we visited a real variety of habitats - salt marsh, fresh marsh, hard- and soft-wood forests, cobble and sand beaches, lake and field. Both its variety and nearness to urban centers makes McNab's Island an excellent regional park.



## JULY EXCURSION - RALPH WIDRIG'S SOUTH SHORE NATURE PRESERVE

Two of our members reported on the July field trip to the south shore, near Port Lehebert in Shelburne County.

The weekend of July 10th and 11th was an outdoor experience for those dozen naturalists who travelled to Port Lehebert and Cadden Beach.

Saturday, Ralph Widrig escorted us through his seaside preserve at Port Lehebert, near Lockeport (described in HFN Newsletter, vol. 1 no. 4) with its varied habitats - bordering on the sea, inland to coastal bog, hardwood and spruce forests and ponds. Camera shutters clicked as plants - Indian pipes, one-flower wintergreen, rose pogonia, calopogan; berries - fox, snow, cloud and wild strawberry; frogs - leopard and green; mushrooms - chanterelles (very tasty); and lichens appeared along the trails. Offshore, migrating common eider and short-billed dowitchers suggested that summer was nearing its end. A common tern's nest with two eggs was located on the rocks off the causeway, Johnston's Pond, while a pair of courting piping plovers were attempting to re-establish a nest after losing their earlier clutch. Cormorants - double-crested and great - fished nearby while least sandpipers roamed the beach. Spotted sandpipers and their chicks fed in the reeds.

Hot chocolate and a "Coleman" fire were enjoyed by all at the end of the day.

Sunday, Winnie Cairns led us through the fog on the heath at Port Joli to Cadden Beach. Additional flowers were observed en route, including Arethusa, white fringed orchids, pitcher plants, and flowering round-leaved sundew. The sun broke through as we reached this beautiful, quarter-mile wide, white sand beach. Offshore, a half-dozen seals basked on the rock while cormorants dried their wings on another. Common eider and dowitchers were again on the move. Winnie shared some of her research findings on the piping plovers with us. The last few unhatched nests of these birds on the beach enabled us to observe their simplicity and the importance of marking the nests to avoid crushing the four little eggs. Winnie managed to capture three chicks, and we were given the opportunity of watching her at work, weighing and measuring. To date, she has banded approximately 75 piping plover chicks, and documented their growth and development. The beach is shared by some 70 common and arctic terns, not at all pleased with our presence.

Our thanks go to Ralph and Winnie for their hospitality and willingness to share their surroundings and expertise. Perhaps we will be invited back for a return visit next year - I hope so!

Wendy McDonald

A NATURE WALK AT JOHNSON'S POND .....By Mary L. Blackford  
and Barbara R. Robertson

On July 10th near Johnson's Pond, Shelburne County, eight members of HFN, including Winnie Cairns and Ralph Widrig as leaders, survived a five hour trek. It was a sunny day. We clambered over and squished through terrain as diverse as bog, cut-over forest land, boulder-strewn shoreline, grassy headland, steeply sloped forest floor, rocky lake-shore and spruce-covered sand dunes. Have you ever experienced the "creaking knees syndrome"?

The rewards were varied, and HFN is indebted to Ralph for sharing his seaside preserve with us. Two types of habitat were explored - the salt water shoreline and the forest. The shoreline area can be divided into four sub-habitats - the sand dunes, the barricade of angular boulders between the sea and the forest, the landlocked ponds found in some areas behind the barricade, and the grassy headland. Likewise, the forest area can be divided into sub-habitats of which we saw three - the mixed forest floor, the bogs, and the lakeshore.

Let us begin where our walk began, with the saltwater shoreline in the sand dune sub-habitat. A two week old Spotted Sandpiper chick was the highlight here, and was observed at close range in Winnie Cairns' hand! It demonstrated a crouching position and tail-pumping, both types of behavior being peculiar to his kind. Overhead a flock of dowitchers was seen heading westward, while nearby a Myrtle warbler or Yellow Rump, moved about in the spruce trees which dominated the area. A thicket of wild roses added a splash of deep pink to the scene and everywhere in the sand were tiny, round mounds with a centre hole through which millions of ants were entering and exiting during the course of their activities. Down near the junction where sand gives way to boulders, we sampled some beach peas discovering that they tasted very much like fresh garden peas.

Between the sand dunes and the ocean stretched a long narrow barricade of angular quartzite boulders. It was as if they had been bulldozed there. Only a few granite boulders were seen. This ridge ran parallel to the ocean, separating it from the forest which adjoined the sand dunes. We "walked" along this area for about a mile, noting the absence of life forms amongst the boulders. Out to sea we saw a flock of eider both in the water and in flight. A loon was heard and eventually seen closer to shore. Cormorants kept passing one at a time, and a lone whimbrel was seen overhead. Both herring and black-backed gulls were frequent.

We came to a small pond which was landlocked between the barricade of boulders and the forest. At the edge of the warea we found and ate glasswort and goosetongue (a seashore plantain). The glasswort was crisp and salty, somewhat resembling celery in taste. The goosetongue is so named for its shape and the whitish line that runs the length of its underside.

A grassy headland interrupted the boulder barricade and offered

a more stable and smoother base on which to walk. Large juicy strawberries were the delightful surprise found here. Pausing briefly to relax, we also found blue-eyed grass, cow-wheat, foxberries and nightshade. Some empty sea urchin shells were strewn about in the grass.

When we left the salt water shoreline to enter the forest our first edible find was the yellow chanterelle. Mushroom fanciers gathered them and later cooked them for supper.

On the forest floor we found several types of fern - bracken, cinnamon, royal, interrupted and wood. Bunchberries were abundant and in various stages of development. On the seashore side of the forest they were still in bloom but further inland they had ripened berries. Creeping snowberries were much less abundant. Fragile-looking Indian pipes were unfolding as they pushed themselves upward and some dried ones from last year were noted to be still standing erect wearing a seed pod! Twin flowers were seen pink and delicate in their forest floor environment.

At one point we stepped off the trail into a small, dimly-lit area. Here was a high out-crop of rock on the top of which clung spruce trees and some fern. Moss grew just about everywhere, covering the rocks and on the trunks of trees. At the base of the out-crop a porcupine had been digging in the earth.

Back out on the trail there were other animal signs-some droppings from wildcat, bear and rabbit. Also, a fallen tree showed evidence of bear diggings. There were few mosquitoes or black flies; however, we inadvertently collected some wood ticks.

Because of thick foliage, identification of birds was difficult but we did manage to see a Swainson's thrush (olive-backed), an immature male American redstart and a junco. Others such as the white-throated sparrow, a flicker and kinglets were identified by song. Attempts to find a baby petrel at the bottom of a narrow-mouthed burrow were unsuccessful.

With a sinking feeling and the sound of boots squishing, we entered a bog where rose pogonia and calapogon (bog orchids) bloomed, where sundews and pitcher plants flourished and where the bake-apple fruit was ripening. A teal, thought to be the green-winged species, flew up from the bog as we entered. The surprise in this area was the discovery of a junco's nest hiding on the ground under dried grass. The nest was near the edge where the trees bordered the bog. The discovery of the nest, containing four creamy white eggs speckled with burnt sienna brown, came about because an unsuspecting boot came down so close to the hidden nest that the junco mother flew off in fright. Her nervous voice was heard from the nearby woods until we moved away.

We then climbed up a steep wooded ridge. The trees here and in other parts of the forest were both hardwoods and conifers. The conifers included pine, fir, and spruce. The fresh cones are, at this time of year, especially interesting to observe. The hilly slopes made it possible at one point for us to look down upon the cones of



a fir and a spruce growing side by side. The fir cones, which had exuded whitish resin resembling angel hair on a christmas tree, were a deep blue-purple and standing upright, while the pendant cones of the spruce were a rich purplish-red.

The hardwood trees seen were oak, red maple and birch. A tall oak was observed as well as a sapling oak rising from the decaying trunk of a fallen evergreen. Young wire birch was growing in some of the cut-over forest area but the most interesting birch was a felled one whose base was about a foot in diameter. This birch had been cut down by beavers but the gouges made by their teeth were not recent. The birch was on the edge of a slope which dipped down to a lakeshore. By some miscalculation the birch had fallen away from the slope and the lake. Not to be wholly deprived of their prize, the beavers had removed all the smaller branches.

As we followed down this steep slope to the lakeshore we saw an abandoned beaver house at the edge. Beavers have not been observed in this lake in recent years. As we stood looking at the beaver house we realized that the shore was fairly hopping with dozens of tiny toads.

The dark toads were about one-half inch in length. They must have been newly emerged from the lake as others of their kind could still be observed swimming in the water, not yet metamorphosed to the stage of losing their tails.

After we observed the toads and toads-to-be, we saw two bulging eyes observing us from water-level. The frog, whose eyes we saw, sat motionless until a curious human hand moved close to him. Then he leaped away to a safer depth.

Few aquatic plants were observed on the edge of the lake probably because they had been eaten by muskrats known to be present though not seen at this time. Both dragon and damsel flies flew about the water's edge; marsh skullcap bloomed on the rocky shore.

Returning partly through forest and partly along the shore, we arrived back at our starting point shortly before sunset. Other HFN members had arrived and pitched their tents. They had been enjoying the sandy beaches and salt water breakers which also abound in the small but diversified natural area.



Early in June, Winnie Cairns and I examined the debris scattered about an occupied fox den at Hemeon Head, near Lockeport, among which were a number of bird wings that appeared to be from one particular species. Winnie suggested that they may be from Leach's Petrels, and this was later confirmed by Ian McLaren in Halifax.

Extensive searching for burrows, which would betray a nesting colony of these birds turned up nothing. The wings at the den seemed to be of recent vintage, certainly this year, although no really fresh ones were among them.

About ten days later, on the high barrens of the extreme southerly headland of Hemeon Head, I found the fresh remains of several hundred Leach's Petrels - wings, feet, tails, etc. Fox runs and scats were everywhere, but no burrows or evidence of the foxes digging for them. Recalling that the nocturnal petrels often tend to avoid bright, moonlit nights when approaching islands or headlands in the course of their nesting activities, I checked on the moon phases for the month of June. Full moon was June 12th, just about the time we observed the wings, which did not seem so fresh, at the fox den. The fresh remains at the barren headlands were found on June 20th, one day after the last quarter.

The fact that an invasion of Leach's Storm Petrels struck this particular headland during the darkening phase of the June moon seems clear, and perhaps the older wings at the fox den were from birds captured during the darker phases of the moon in May.

But why did these tiny, web-footed birds of the far oceans come to the mainland if, as it seems, they are not nesting there?

Is there a hidden colony deep in the thickets of white spruce behind the headland that has escaped detection? Or, rather, could these be first year birds or otherwise non-breeding adults which have ventured in from far at sea on a black night to explore for suitable locations for a nesting colony next year? If so, the not-so-welcome reception they received from the foxes must have sent them back to sea with second thoughts.

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note: I have read that the name "Petrel" is said to derive from the habit of walking on the water--after St. Peter. And there was a common superstition that the petrel is a sacred bird because each one is the reincarnation of a person drowned at sea. These tiny birds appeared close to a ship in distress in a gale, so



sailors thought, to carry off the souls of persons soon to be drowned. db.

The Cheticamp Bog is said to be the largest raised bog in the Maritimes. Whether or not this is the case (it sounds probable), it is quite an experience to stand on a plateau with flat boglands stretching almost from horizon to horizon. The acres of heath plants are broken only here and there by small ponds or stunted groups of spruce and tamarack. This is where we found ourselves a few weeks ago. It is so unlike N.S. to find a wide flat expanse like this, and even more of a surprise when one considers the hilly nature of Cape Breton.

The interior of Cape Breton, however, is an ancient surface, eroded flat as a table - geologically termed a peneplain. The hard granitic rock releases few nutrients for plants, and the flatness impedes the drainage. These two conditions are conducive to the formation of raised bogs.

Such bogs are characterized by shrubby members of the Heath family, such as Leatherleaf, Sweet Gale, Bog Rosemary, Bog Laurel and Labrador Tea. The pink flower clusters of Bog Laurel and the white flowers of Labrador Tea dotted the surface of the bog as far as the eye could see. Mixed in with these shrubs were other bog plants such as the *Arethusa* Orchid, Pitcher Plants, Snake Apple and a multitude of sedges and rushes. Both the orchids and the Pitcher Plants were at the peak of flower.

Small pools dot the plateau. Yellow Water Lilies are common, as is the Bladderwort. Green frogs were surprisingly common, and jumped into the water as one approached each pond in turn.

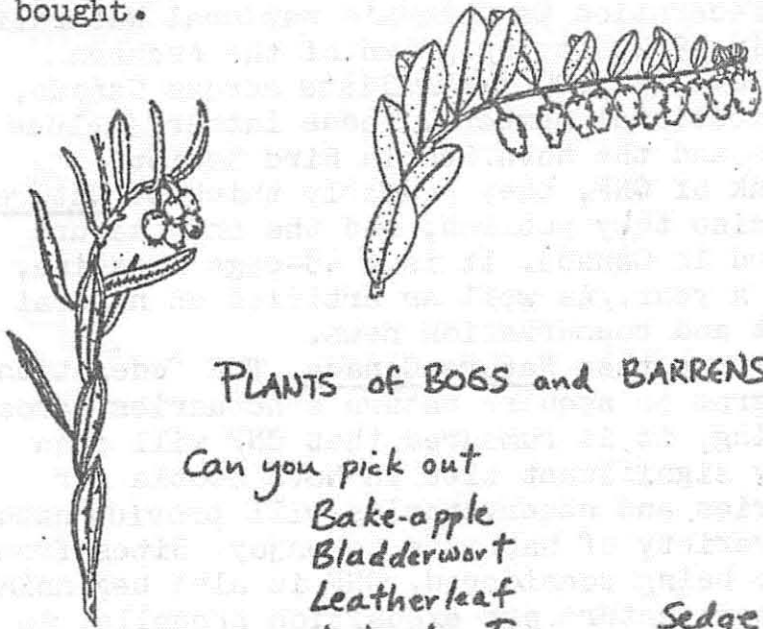
The headwaters of the Cheticamp River drain out of this bog complex. The clear stream meanders through beds of sedges and Yellow Water lilies, but the bed is clean gravel, and the water ice-cold.

The highlight of the day turned out to be the discovery of Greater Yellowlegs. In Nova Scotia, these birds nest only in the Cape Breton Highlands. We encountered two pairs; in both cases, they dove at us, crying loudly, and followed us for close to a quarter of a mile. At the headwaters of the Cheticamp, we found a flightless juvenile while the parents cried and dove within a few feet of our heads. The sight in itself was exciting, but it was even better still, as this is apparently the first recorded evidence of the Yellowlegs breeding near Cheticamp Lake. Elsewhere, we came across Black Ducks with young, Loons, and a Great Blue Heron. Lincoln's sparrow (a grey and yellow sparrow) 'chipped' loudly at us from almost every stunted spruce.

This was one of the most spectacular natural areas we have seen in Nova Scotia, but unfortunately the story can not end on this happy note. For nowhere could we escape the sound of heavy equipment. Even as we photographed a mutant yellow pitcher plant, a huge bulldozer moved toward us, cutting its way through peat to the bare rock below. For this area is doomed to become the Cheticamp Reservoir of the Wreck Cove Hydroelectric Project. The entire area will be flooded to provide water for diversion to the eastern reservoirs, and eventually daily generation of power at peak demand times.



It was a strange feeling to be two of the last naturalists to see the Cheticamp Bog. We could not help but wonder if any Halifax housewives realize how dearly the power for their dishwashers is being bought.

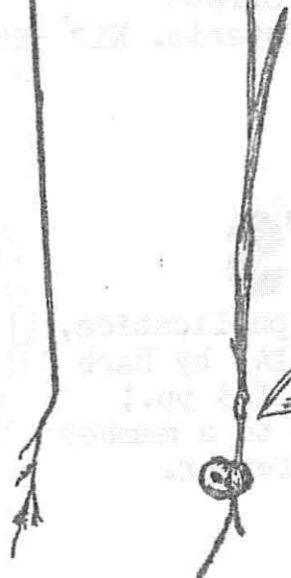
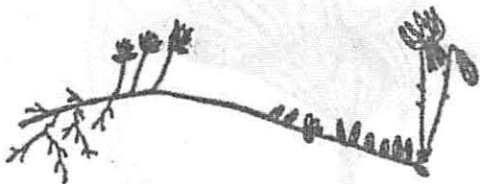
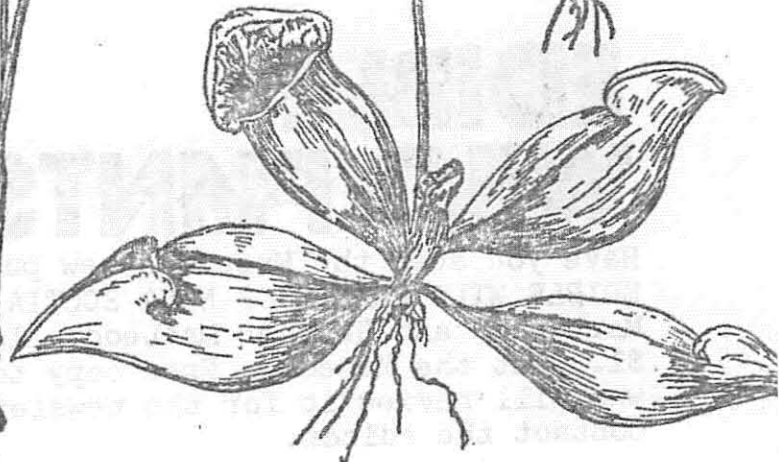
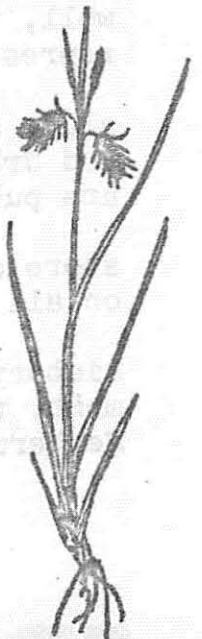


## PLANTS of BOGS and BARRENS

Can you pick out

Bake-apple  
Bladderwort  
Leatherleaf  
Labrador Tea  
Cranberry  
Rosemary

Sedge  
Pitcher Plant  
Lambkill  
Bog-pink (Arethusa)



## WHO'S WHO IN CONSERVATION - THE CANADIAN NATURE FEDERATION

....by Paul Keddy

The Canadian Nature Federation is Canada's national Naturalist organization. It was formed in 1972, having grown of the Audubon Society. Today it represents over 20,000 naturalists across Canada, as well as close to 100 institutional members. These latter include the Halifax Field Naturalists and the Nova Scotia Bird Society.

When most people think of CNF, they probably think of Nature Canada, the full colour magazine they publish, and the only nature magazine written and published in Canada. It is a 48-page magazine, mailed to members four times a year. As well as articles on natural history, it covers natural art and conservation news.

However, CNF is much more than Nature Canada. The federation is now beginning a major program to acquire nature sanctuaries across Canada. (At the time of writing, it is rumoured that CNF will soon name a nationally and locally significant site in Nova Scotia for acquisition.) These sanctuaries and observatories will provide naturalists across Canada with a variety of habitats to enjoy. Sites from alpine meadow to seacoast are being considered. CNF is also beginning a scholarship program to support nature art exposition annually. As well, CNF provides national support for conservation activities, and representation of naturalists at the federal level.

The Canadian Nature Federation has annual meetings which include symposia on certain topics. These topics have included "Nature and Urban Man" and "Endangered Species and Habitats". The proceedings are published as CNF Special Publications.

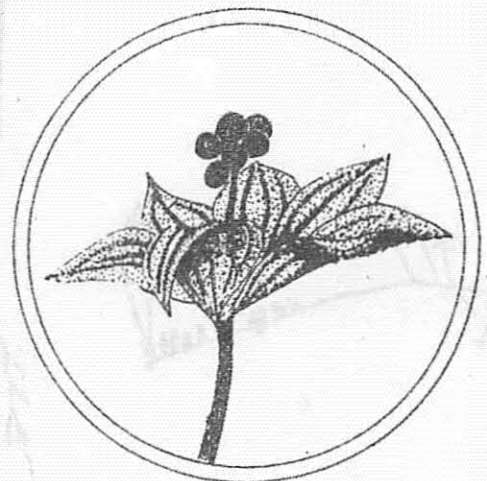
Members of CNF receive a 10% discount from the national bookstore on items purchased there. The bookshop lists over 1000 titles on all aspects of natural history, and operates on a mail order basis.

If you are interested in learning more about the natural history of Canada, as well as supporting a national conservation movement, the Canadian Nature Federation can not be too highly recommended. Membership is \$12.00 for individuals, \$15.00 for families. Write:

Canadian Nature Federation  
46 Elgin Street  
Ottawa, Ontario. K1P 5K6

## EDIBLE WILD PLANTS

Have you seen the Museum's new publication, **EDIBLE WILD PLANTS OF NOVA SCOTIA**, by Barb MacDonald and Heather MacLeod? 143 pp., \$1.50 at the Museum. Free copy to a member who will review it for the newsletter. Contact the editor.

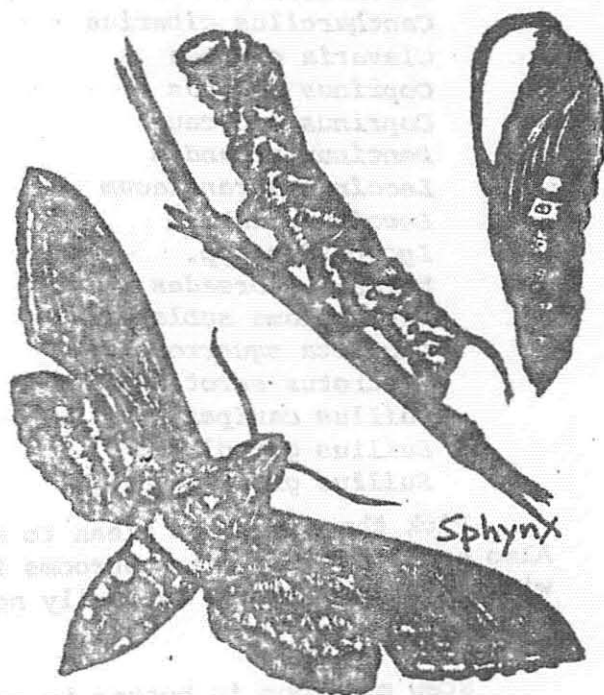
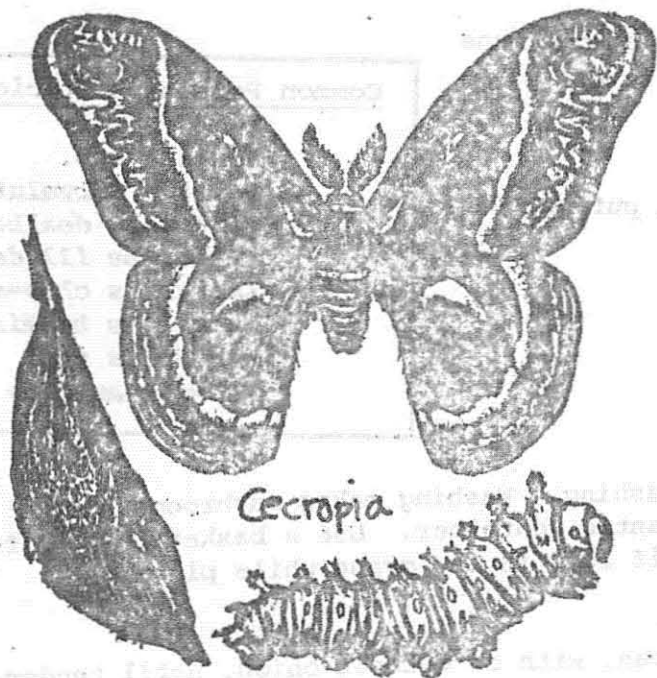
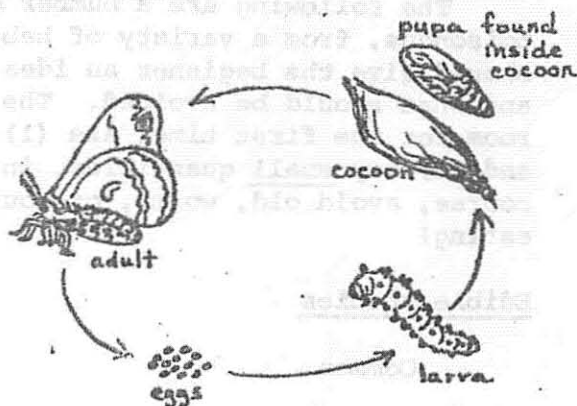


## Curious about Cocoons?

The caterpillar constructs its cocoon as a shelter during the period when it changes from a caterpillar (larva) into a pupa and finally, into an adult moth. Depending on the kind of moth, these changes may take from two weeks to several months.

Most caterpillars construct their cocoons in the fall and emerge the following spring as adult moths. The Bagworm Moth emerges in the fall and lays its eggs in the cocoon. The eggs hatch the following spring.

Handle cocoons with care. The insect inside may be injured if the cocoon is torn, dropped, or squashed. Use a penknife or scissors to cut the twig with hanging cocoon.



The fat green larvae of the Cecropia and Sphinx moths are often brought to the Museum by curious Nova Scotians at this time of year. The caterpillars will usually enter the pupa stage in captivity, and can be kept with little difficulty until the adult moths emerge. Or you may find the cocoon, especially large ones like that of the Cecropia, hanging from a branch in winter. Emergence of the moth is a beautiful sight, but these creatures live only a few days.



# Some Mushroom Notes

Compiled by Carolyn Bird  
for the Nova Scotia Museum  
September, 1973.

## Selected Mushrooms for Mycophagists

The following are a number of easily recognized mushrooms, both edible and poisonous, from a variety of habitats. Although the list is far from complete, it should give the beginner an idea of what is available in Nova Scotia for the pot, and what should be avoided. The important things to remember, when sampling a mushroom for the first time, are (1) know what the mushroom is (consult an authority!), and (2) try small quantities, in case you have a particular sensitivity to it. Of course, avoid old, wormy, or mouldy specimens at all times. Good hunting--and good eating!

### Edible species

#### Common

- Agaricus campestris* . . . . . common dike mushroom
- Armillaria mellea* . . . . . honey mushroom
- Cantharellus cibarius* . . . . . chanterelle
- Clavaria cinerea*
- Coprinus comatus* . . . . . shaggy mane
- Coprinus micaceus*
- Dentinum repandum*
- Leccinum aurantiacum*
- Leccinum scabrum*
- Lycoperdon* spp. . . . . puffballs
- Marasmius oreades*
- Naematoloma sublateralitium*
- Pholiota squarrosoides*
- Pleurotus serotinus*
- Suillus cavipes*
- Suillus granulatus*
- Suillus grevillei*

#### Common Poisonous species

*Amanita* spp.  
*Boletus subvelutipes*  
*Clitocybe dealbata*  
*Clitocybe illudens*  
*Lactarius chrysorrheus*  
*Lactarius torminosus*  
*Panaeolus* spp.  
*Russula ametica*

Pick the mushrooms clean to avoid washing. Washing makes mushrooms soggy. Also avoid putting the mushrooms in a plastic container. Use a basket. (A knife with an orange handle is easily noticed if left in the grass while picking)

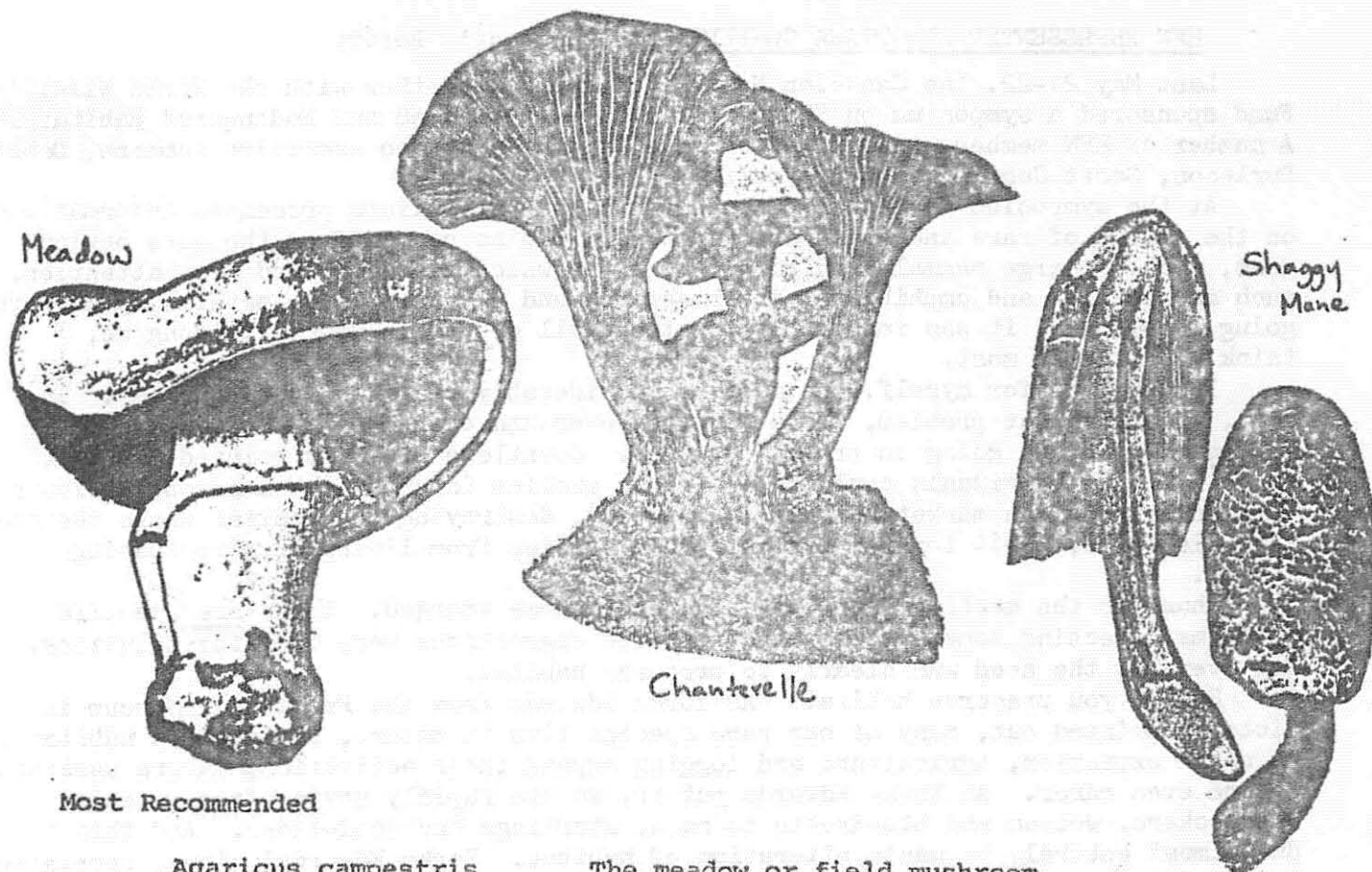
Stew mushroom in butter in an open pan, with or without onion, until tender. (15-20 minutes depending upon quantity). If the mushrooms are dry, cover pot. Add fresh parsley at the last moment. Serve as is, or on toast.

Substitute chopped bacon for butter and stew mushrooms with bacon.

Sauté mushrooms a short time. Spread on bottom of pan and cover with fish fillets. Bake

Thicken mushroom juice with a bot of flour and use as filling for crêpes. Serve with fresh lettuce.

To freeze, stew in butter until cooked to regular eating point. Freeze immediately.



**Most Recommended**

Agaricus campestris

The meadow or field mushroom

creamy white to brownish cap, annulus thin, gills free from stem, pinkish at first, later blackish-brown found on lawns and other open places - early summer and fall

Cantharellus cibarius

a chanterelle

vase shaped fruiting body, pale yellow, spore bearing surface is composed of folds rather than conventional gills- summer and fall, in woods

Coprinus comatus

The shaggy mane

Tall stender fruiting body, cap-barrel shaped covered with brownish scales, grows in autumn

All solid white puff balls

several different species

all choice if flesh is firm and pure white, wide range of sizes from 1 inch to more than a foot in diameter. Surface texture varies also from smooth to warty.

The most deadly species are to be found in the genus Amanita. The most distinctive characteristic of this group is the enlarged bulb like base of the stem which is frequently enclosed in a small sack, the volva.

# HFN REPRESENTED AT OTTAWA CONFERENCE: President's Report

Last May 21-22, the Canadian Nature Federation together with the World Wildlife Fund sponsored a symposium on "Canada's Threatened Species and Endangered Habitats." A number of HFN members were in attendance, including three executive members, Debbie Burleson, Scott Cunningham and myself.

At the symposium more than 30 scientists and naturalists presented information on the status of rare and endangered species. Topics ranged from the more obvious ones, such as large mammals and birds, to those which have received less attention, such as reptiles and amphibians, invertebrates and plants. Since several talks were going on at once, it was impossible to attend all of them. However, among us, I think we attended most.

I know that for myself, the meeting considerably clarified the problems. In fact, the one great problem, to be repeated over and over, was the need to protect habitat if you are going to protect species. Countless speakers pointed out that while killing individuals could be a serious problem (such as the mass collection of turtles by American market hunters in Ontario), destroying the habitat where the species lives is worse, for it forever prevents that species from living or perpetuating itself.

Thus, as the meetings went on, a general theme emerged. There are specific problems affecting some species, and specific suggestions were made for solutions. But overall, the need was clearly to preserve habitat.

How do you preserve habitat? As Yorke Edwards from the Provincial Museum in Victoria pointed out, many of our rare species live in mature, undisturbed habitats. As urban expansion, agriculture and logging expand their activities, mature habitats become even rarer. As Yorke Edwards put it, we are rapidly moving from pileated woodpeckers, wolves and bloodroots to rats, starlings and dandelions. And this is due almost entirely to man's alteration of habitat. Yorke Edwards' views, reprinted in the July/September issue of Nature Canada, are well worth reading.

The acquisition of mature habitats will clearly have to be given much more consideration in order to protect our indigenous rare species. Government will have to play a role through establishing more provincial parks, national parks, nature reserves and ecological reserves. But hopefully as time moves on, naturalists themselves will also be able to acquire critical areas and manage them for the preservation of rare and endangered species. In countries such as Great Britain and the U.S.A., naturalist societies own or are in the process of acquiring significant areas of land for precisely this purpose.

Proceedings of the CNF conference will be published soon. Specific details about species from Grizzly Bears to Spotted Turtles should then be available. In the meantime, Yorke Edwards' article in the latest Nature Canada is a fine review of the main theme.



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## TEN GRASSES YOU CAN KNOW

.....by Joe Harvey

Grasses are a strange group in that, while they provide the majority of food for humans including (indirectly) beer, beef, milk and eggs as well as obvious things like bread and spaghetti, they are terra incognita as far as recognizing the wild species is concerned. The reason most people do not know the grasses is obvious - they (the grasses that is) are wind pollinated, have no brightly coloured leaves ('petals') and so do not draw themselves to the eye. In fact the necessity to adopt a 'stripped down' flower structure to allow free pollen movement by the wind means that grass flowers are very small and abbreviated things indeed. However, for all their small size they are quite complicated and are so different from 'normal' flowers that a whole lot of new terms have to be used to describe them, eg. glume, lemma, awn. So not only are the flowers not attractive but the techniques used to describe them are positively repulsive.

North America has approximately 1,500 grass species; Nova Scotia has about 100 so it is reasonable to expect a naturalist to know ten of the common ones and that is the aim of this article.

1. MEADOW FOXTAIL (Alopecurus pratensis). A tall grass which shares the false spike type of inflorescence with timothy grass with which it is easily confused at a few feet. However close inspection of a head reveals a profusion of tiny bristles (awns) on the florets which are missing from timothy (Alopecurus has awns - get it?). Foxtail is just about the first grass in the province to flower, starting in early May in sheltered places, but sweet vernal grass may beat it.

2. TIMOTHY (Phleum pratense). One of our commonest pasture and roadside grasses and much favoured by farmers because of the heavy hay crop it produces - most of the milk you drink is made from timothy. Like foxtail, timothy has a dense spikey head and may grow from a few inches to several feet high. It got its name from Timothy Hanson who took a trip over to France in 1720 and collected grass seeds of various kinds. The one which grew best he advertised so enthusiastically it got called timothy. It is now the prime pasture grass of the whole northeast. It flowers about 6 weeks after foxtail and the heads persist long into winter, sticking out of the snow.

3. SWEET VERNAL GRASS (Anthoxanthum odoratum). This vies with one or two others for the place of the first grass to flower in the spring. The 'sweet' in the name comes from the scent of the leaves which on drying give off a pleasant, almost vanilla odour of coumarin. It shares this with another N.S. grass, holy grass (Hierochloa odorata), found at the head of salt marshes. Sweet vernal grass used to be looked on favourably by farmers because of the scented hay it produces but coumarin is bitter tasting and somewhat poisonous. The plants are short and tufted and the secret of identifying them is to pick a stalk and look at the junction of the leaf blade and the leaf sheath. The presence of both a membranous ligule and a tuft of hairs is diagnostic. If you find it pick some, let it dry and the next day get a sniff of the fragrance.

4. COUCH or TWITCH (Agropyron repens). A common weed which is the terror of the flowerbed and the farmer's ploughed field. Couch develops an extensive underground system of rhizomes which break on being pulled. Each fragment of rhizome can reproduce a whole plant so getting rid of it is no mean feat. Almost every roadside in every town has this grass on it. The spikes are of a very simple, straight structure unlike any other grass except the much smaller ryegrass (Lolium). Like all the grasses except the last two described in this article it is introduced from Europe where co-existence with agricultural man seems to have raised a group of vicious weeds as well as some useful species. There is a native Nova Scotian couch (dare I call it the Nova Scotian twitch?) which occurs on riverside, cliff and coastal areas but this lacks rhizomes and never invades a man-influenced area.

5. KENTUCKY BLUEGRASS (Poa pratensis). Common in lawns, roadsides and pasture. Its name is a misnomer, the Bluegrass of western Kentucky, which Daniel Boone and other early explorers reported as coming to the belly of their horse, was Andropogon. However, as soon as intensive cattle and then horse ranching got underway the Andropogon could not stand the grazing pressure and was displaced by various European grasses chiefly Poa and the name was transferred to Poa pratensis which excels in the hot but humid Kentucky climate. Fairly dwarf strains which are easily grown commercially are highly touted for lawns but in truth tend to be somewhat coarse growing. A common variety is 'Merion'. The related annual poa (Poa annua) is common in flowerbeds and along footpaths where it is able to withstand trampling better than most plants.

6. RED FESCUE (Festuca rubra). The needle leaves of this grass are the result of a rolled shape taken up by the blade; quite a few other grasses do this, it helps in minimizing water loss. Sheeps fescue is a smaller version of the same basic pattern and tends to grow on dryer more rocky areas than red fescue which is common in lawns and roadsides. Used in the finest lawns.

7. COCKSFOOT (Dactylis glomerata). Like timothy this is a tall pasture grass common along roadsides and waste land. The clumped, one-sided arrangement of the spikelets (the 'cocksfoot' of the name) is quite distinct. This grass is also called orchard grass in the U.S.A. and is widely grown for hay.

8. BENT (Agrostis tenuis). A small fine-leaved grass which is probably the most abundant lawn and roadside species in the Maritimes. The open panicle of very small, single-flowered spikelets is a common sight along roadsides and when in flower or with dew on them give a distinct misty effect when you are driving along the road. Good as a lawn grass.

9. MARRAM (Ammophila brevigulata). The grass responsible (with wind) for the formation of our coastal sand dunes, its very extensive rhizome system binding the sand which the leaves have collected around their base. This way the grass has been responsible for building dunes over 200 ft. above sea level. The growth of the rhizome is stimulated by having sand dumped on it - dune growth is thus automatic. In addition to having remarkable rhizomes the leaves of this plant exhibit to an extreme degree the protection of the (upper) surface by the rolling of the leaf blade into a tight cylinder. This encloses the stomata thus saving them from sand blast and drying winds.

10. CORD GRASS or SALT HAY (Spartina alterniflora). Performs the same binding task on estuarine mud that marram does on sand. Its rhizomes possess air channels which allow the roots to respire aerobically in notoriously stinky (anaerobic -  $H_2S$ ) mud. It is a coarse plant standing erect on the marsh. There is a dwarf fine-leaved relative (S. patens) which grows on the landward side of the cord grass zone and a taller species to 1.5m (S. pectinata) in salt-free portions of upper marsh.

----- Dr. Harvey has just left Halifax for a year's sabbatical at the Royal Botanic Gardens, Kew, in England. He hopes to write a book on grasses but says not to start saving your pennies for it yet since it may take five years to complete.





BOOK REVIEW ..... A Field Guide to the Birds: Eastern Land and Water Birds  
by Roger Tory Peterson  
The Birds of North America: A Guide to Field Identification  
by Robbins, Bruun, Zim and Singer (Golden Guide series)

Late summer and fall are times when an abundance of birds are moving through the Maritimes on their way to southern wintering grounds. Many of these can be readily seen on our marshes, ponds, rivers, woodlands and even in our backyards and gardens. A lot of these autumn migrants have lost their brighter spring plumages and are no longer as readily identified so a good bird reference is a necessity before heading out into the field.

There are two standard field guides available: Peterson's Field Guide to the Birds and the Golden Guide's Birds of North America by Robbins et al. The books differ somewhat in format but both are excellent.

The Peterson guide includes birds from eastern North America only, possibly an advantage for a beginner who may prefer not to have to sort through the western birds as well, in order to make an identification of an eastern species. The book is arranged with all plates in one section in the middle. Arrows on the pictures and brief notes on the face pages point out key features to look for in identifying a particular species. Page references refer to more detailed textual accounts for each species. These accounts include information on voice (expressed in nonsense syllables of similar sound), range, habitat, field marks, and how to distinguish from other similar species.

The Golden guide deals with birds from all of North America, so may prove useful in determining those rare western birds which occasionally make it to Nova Scotia. In the Golden guide, text descriptions appear on opposing pages to species pictures, a very handy feature for quick field identification. Tiny range maps and musical scale notations of voice appear beside the text. However, text descriptions are very brief, and concentrate only on the species in question, without reference to other similar species.

Both books are approximately 7½" by 4½", compact and lightweight, and therefore easy to take along on a fieldtrip. A number of Halifax book stores carry one or both of these guides, or they may be obtained through the Nature Canada Bookshop in Ottawa.

PRICES.....	hardback	softback
Peterson	\$7.95	\$5.95
Golden Guide	\$7.50	\$4.95

#### THE MARITIME NEST RECORDS SCHEME

.....maybe you can help.

For the past 16 years the Maritime Nest Records Scheme has been collecting records of nesting birds in the Maritimes. In that time 17,632 nests representing 179 species have been reported. Formerly coordinated by the New Brunswick Museum in St. John, the scheme's holdings have recently moved to the Canadian Wildlife Service in Sackville, New Brunswick. M.N.R.S. files are made available to anyone seeking information on nesting birds, and in the past have proven useful to people investigating breeding success, nesting biology and breeding distribution for various species.

If you have been able to observe any nests this summer why not report the details to the M.N.R.S. Special nest record cards can be obtained through an HFN executive member or by writing directly to Canadian Wildlife Service, Box 1590, Sackville, New Brunswick, EOA 3C0. But hurry, 1976 reports should be in by Oct. 1 of this year.

"Survival out here is many things. It is thin layers of birch bark, shredded to make tinder. Likewise dry moss, grass, lichen, fuzz from pussy willows, milkweed, and the heads of goldenrod. Insects are good eating, and far more fortifying than meat or fish. Among them are dragonflies, moths, and mayflies."



(We're not like that in HFN!)

Membership in the Halifax Field Naturalists is open to anyone interested in the natural history of Nova Scotia. Membership fee is two dollars annually, family membership three dollars. Come to a meeting or write care of the Nova Scotia Museum, 1747 Summer St., Halifax.

name \_\_\_\_\_

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From our back cover:

5 birds, 4 bugs (spider included), 1 squirrel, 1 rabbit, 1 snake, 1 turtle or tortoise, 1 foxlike head, 3 unidentified silhouettes, 1 unidentified but smiling face behind the turtle. Any others?





## THE HALIFAX FIELD NATURALISTS

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