

BLOMIDON NATURALISTS' SOCIETY NEWSLETTER



Vol. 9, No. 4

December, 1981

The BNS Newsletter is published on the equinoxes and solstices.

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The primary objective of the Society shall be to encourage and develop in its members an understanding and appreciation of nature. For the purpose of the Society, the word "nature" will be interpreted broadly and shall include the rocks, plants, animals, waters, air and stars.

From the BNS Constitution

--- EVENING MEETINGS ---

All meetings will be held in Rm. 244 (note change!) of the Beveridge Arts Centre, beginning at 8 p.m.

1. Monday, January 18: "The Planets, the Stars, and the Observer's Handbook" - Roy Bishop - Editor of the 1982 Handbook, will speak briefly about his first edition, but will spend most of the evening showing slides and a movie of our solar system and beyond. Some of the results of the Voyager Space Missions will also be discussed.

Please give suggestions for meetings and or field trips to Bill Thexton(542-3722), Jim Wolford(542-2201), or Jean Timpa(542-5678). If in doubt about the weather situation with regard to the meetings or trips, call Jean.

Acknowledgements go out to Dr. Bleakney, Dr. Harrison, and all those who contributed slides, displays, food, and lively conversation to the very successful Members' Night, and to those who have assisted with contributions to this Newsletter.

AND NOW: SOMETHING FOR THE YOUNG AT HEART.

WINTER WORDS!

W	H	N	B	U	N	T	I	N	G
C	H	A	D	L	A	R	K	O	S
R	O	I	W	R	T	E	W	I	N
A	A	L	T	K	I	T	T	O	
M	R	E	D	E	E	F	U	A	W
P	H	E	A	S	A	N	T	L	S
O	F	E	T	A	G	R	R	U	H
N	A	O	A	L	L	E	A	S	O
L	R	X	T	E	S	C	N	E	
M	R	E	V	I	H	S	K	I	T

Look in any direction for these words:

- Bunting
- Cold
- Crampon
- Dr. St.
- Eagle
- Feeder
- Fox
- Hawk
- Heat
- Ice
- Insulation
- Lark
- Owl
- Pheasant
- Salt
- Shiver
- ski
- Snowshoe
- Storm
- Track
- wet
- white

The leftover letters spell a word:

BIRD NESTING SURVEY 1981

Bernard Forsythe, Wolfville, N.S.

The nesting season ended this year with 4 new nests that I was able to add to my nest list. Those were the nests of Mourning Dove, Olive-sided Flycatcher, Cape May Warbler, and Bay-breasted Warbler. These are all good finds, but my favourite has to be the Cape May Warbler. For years I have been listing the spring warblers that I see in Kings Co. Most years I get all our regular warblers except the Cape May. In June I finally found Cape May Warblers singing in a spruce woodlot on Wolfville Ridge. It was a thrilling moment on June 19 as I looked at the 5 eggs in a Cape May nest among the cones 3 feet from the top of a 30 foot spruce.

Crow nests are easy to find especially for the many raccoons that are around now. They are responsible for the failure of most of the crow nests that I find. However the crows must be doing something right as there seems to be no shortage of crows in the valley. Raccoons also got both of this years' Long-eared Owl nests. The Robin is another bird that each year 50% of the nests fail, but as they have 2 or 3 nests per season they are able to keep their numbers up.

One of the Pewee nests was on the same fork of a branch in a white birch that Pewees have nested on for at least 3 years in a row. It would be interesting to know if they were the same birds or if that branch just happens to be an ideal site for the nest of any Pewee that comes along. Some of our songbirds come to the same area from year to year but don't usually nest on the same site.

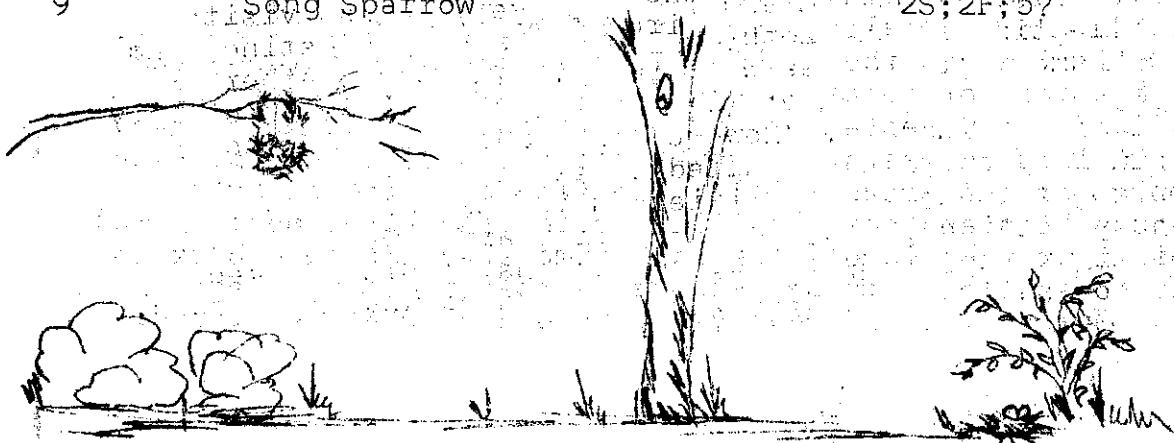
This year Cowbird eggs were found in the nests of the Solitary Vireo, Chestnut-sided Warbler, Dark-eyed Junco, Chipping Sparrow, White-throated Sparrow, and Song Sparrow. It amazes me how they will go into mature woods, where one would not expect to find Cowbirds, and seek out Thrush, Warbler, Vireo, or Sparrow nests to lay their eggs in. Out of dozens of flycatcher nests observed over the years I have found only one parasitized by a Cowbird, that was an Alder Flycatcher nest. Maybe the other songbirds would have a talk with the Flycatchers to learn how to handle Cowbirds.

Following is the list for 1981. There were 174 nest cards representing 55 different species of birds. This year all the nests in a colony of the colony nesting birds were reported on a single card.

No. found	Species	S-successful F-failed
1	Double-crested Cormorant	colony card
1	Great Blue Heron	colony card
1	Black Duck	F
2	Goshawk	1S; 1F
2	Red-tailed Hawk	1S; 1?
1	American Kestrel	S
2	Ring-necked Pheasant	1S; 1F
1	Great Black-backed Gull	F
1	Herring Gull	colony card
1	Rock Dove	?
2	Mourning Dove	1S; 1F
5	Barred Owl	5S
2	Long-eared Owl	2F
1	Short-eared Owl	F
1	Chimney Swift	?
1	Belted Kingfisher	S
4	Common Flicker	3S; 1?
1	Pileated Woodpecker	S
1	Yellow-bellied Sapsucker	S

No. found Species

1	Hairy Woodpecker	?
2	Eastern Kingbird	2S
1	Eastern Phoebe	S
7	Alder Flycatcher	4S; 2F; 1?
2	Eastern Wood Pewee	2S
2	Olive-sided Flycatcher	2S
4	Tree Swallow	4S
2	Bank Swallow	2 colony cards
3	Barn Swallow	3S
2	Blue Jay	1S; 1F
6	Common Raven	3S; 3F
27	Common Crow	6S; 17F; 4?
3	Black-capped Chickadee	3S
1	Brown Creeper	S
1	Gray Catbird	F
17	American Robin	7S; 7F; 3?
2	Hermit Thrush	2F
4	Veery	1S; 2F; 1?
4	Cedar Waxwing	3S; 1F
3	Starling	2S; 1F
3	Solitary Vireo	1F; 2?
2	Yellow Warbler	1S; 1F
1	Cape May Warbler	S
1	Yellow-rumped Warbler	S
2	Chestnut-sided Warbler	1S; 1F
1	Bay-breasted Warbler	F
3	American Redstart	2S; 1F
5	Red-winged Blackbird	3S; 1F; 1?
4	Common Grackle	3S; 1F
7	Brown-headed Cowbird	4S; 3F
2	Rose-breasted Grosbeak	2S
2	American Goldfinch	2S
4	Dark-eyed Junco	2S; 1F; 1?
2	Chipping Sparrow	2S
1	White-throated Sparrow	S
9	Song Sparrow	2S; 2F; 5?



From "OUTDOOR CHAT" March 1962 by Dr. Harrison F. Lewis
 "In an extended study of the rabbit or snowshoe hare which Dr. Dodds carried on in Newfoundland, it was found that the normal breeding season for this animal extends from late March to early August, but that some exceptional instances of breeding late in the year may come to notice. He reports six instances of female snowshoe hares carrying fetuses in November, one example of this sort in December, and two in January."

THE CLUBS" MUSHROOM FORAY FOR 1981

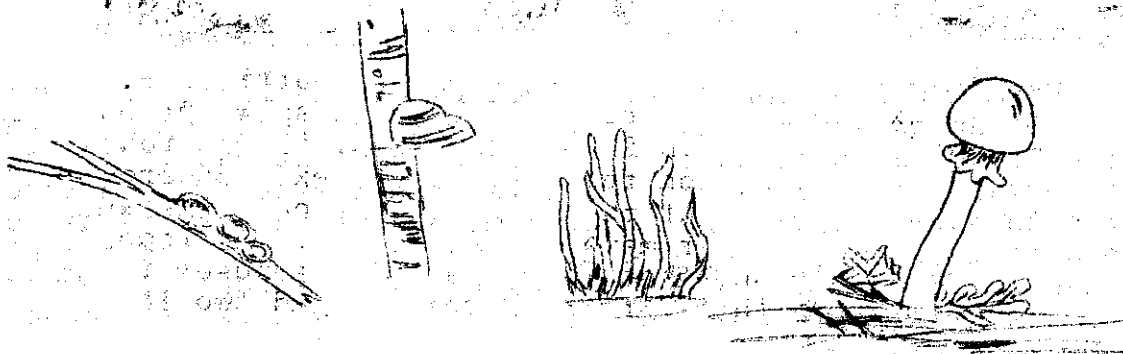
Ken Harrison, Kentville, N.S.

We were fortunate to have a pleasant afternoon for our mushroom walk in the "farm ravine" at the Agricultural Centre, Kentville. Many old friends came for the outing, and it was a special pleasure to have so many younger people there too, all interested in what could be found in the woods. A tramp through the woods is always more interesting after someone has pointed out the many strange things hidden there. It is an awakening process for anyone.

The ravine at the Centre is unusual for a number of reasons. One is that the trees are much older than in most forests in the Valley. The big evergreen trees were only seedlings in 1755. This was established some years ago by students who took cores from the larger hemlock and pine trees and counted the annual rings to ascertain their ages. Another is the great variety of fungi that have been found growing there.

I have known the ravine and collected there since 1926, and although I have collected in many parts of North America since, I know of very few places where one can find a greater variety of fungi or in greater profusion when conditions are right. There are still many species to be found there that have not yet been identified. In 1972, a collection from the ravine was found to be new to science and was named Marasmius uliginosus by Martina Gilliam. Another collection in 1968 on the underside of an old white birch log proved to be the second collection of a polypore described by C.H. Peck from the state of New York. Other rare things found in the ravine are a bright yellow, Rhizopogon Cokerii described from material from North Carolina, and two of the hydnums that I have described as new to science. We are fortunate in having the beautiful "farm ravine" available for walks and studies by the general public as well as the students of plants and fungi. It is the nearest approach to a mature forest in this part of Nova Scotia. It is hoped that it will be carefully protected from vandalism and fire by everyone who visits it.

Collecting on the 26th (September) was interesting, and a large number of species were found. The dry weather of August and early September did not favour the growth of many fungi in large numbers. However, the sharp eyes and the keen searching of the group resulted in finding a few of many common species and some rarities during the afternoon. I was kept busy writing labels for some time after we came back to the picnic tables. My regret now is that I did not keep the labels so that I could give you a record of what was found.



One collection I do remember was made by Jim Wolford who brought back a "Bear's Head fungus" (Hericiium coralloides) from the side of a dead tree. It had unusually long spines for the species. It was missed by the rest of us, because we were intent on things growing on the ground. Jim is also a birdwatcher, and he spots fungi above eye level on the dead branches and dead tree trunks.

We spent some time at the foot of the trail leading down to the bottom of the ravine in the damp alder swamp. I was trying to find the rare bird's nest fungus (Cyathus striatus) with the pleated cups that we found there last year, but it was not to be found. We did find the smooth nest species that grows on twigs (Crucibulum laeve). The alder swamp was favourable for the late fall polypore (Polyporus brumalis) growing on dead branches on the ground, also for (Meralium niveus), the snow white fungus growing in patches on dead alder trunks and (Panellus stipticus) in small brown clusters on downed wood. When actively growing this fungus causes the infested wood to glow faintly in the dark. While in the swamp, someone found a stick with wood that was bright green. This staining of the wood is caused by the fungus (Chlorosplenium aeruginosum) which is an ascomycete that produced small cups on the wood when conditions are favourable. In England this fungus gives the green stain to oak which is then used to make Tunbridge ware.

A quick look and a few digs were made to look for some of the underground fungi that are known to grow on the banks of the ravine but no luck this year.

We were fortunate in seeing specimens of (Amanita virosa), the deadly white Amanita and could demonstrate the "death cap" at the base of the stem. This species is very common in Nova Scotia especially near oak and was responsible for the death of a father and son (The Houghtons) in Hantsport in 1818. Some of the group found young material of the puffball, the flesh pure white. These are small, but edible, and it was pointed out that the hard-skinned (Scleroderma citrinum) is always dark inside and is mildly poisonous.

Others brought in specimens of the milky fungi (Lactarius spp.) whose flesh oozes drops of latex when broken or cut. There were numerous little brown mushrooms (LBMs) that could not be identified and which must be avoided as some are deadly.

In all it was a very interesting afternoon for the leader, and I hope for everyone else. It seemed to be so, as many stayed around looking at the display of fungi lying on the tables, in the picnic grove. (The collections almost all ended up in the garbage cans to avoid anyone picking up a poisonous species thinking it was edible.)

SKUNK STORIES or HOW TO GET RID OF BAD SMELLS AT YOUR HOUSE

From Mrs. Otis Clayton of Newport (Dec. 11, 1981)

"Last July after seeing the odd skunk around the back field, our son mentioned that he suspected one had been in his basement - the nose knows. Horror of horrors, I had been with him in saying his basement needed airing, and helped to open the windows, which had no screens. A visit seemed to reveal no skunk, but after a few days had passed, the evidence was stronger - unbearably so. Finally, a frantic search with flashlight revealed that the creature had got down into a dry cistern, been unable to get out, and expired, then begun to decompose. Have you ever had a mouse or rat do this in a partition wall of a house? Absolutely nothing, come this. After removing the remains for burial, he was advised to use moth balls as a neutralizer, along with a forced air

fan to at least clear the basement air. By this time it is almost gone, just a subtle mothball/skunk whiff now and then, but basement windows require screens in Kempt Shore.

Here is her second skunk tale -

"After the season was well under way, and the excitement was ebbing about the first incident, my husband started out for his morning stroll with our big black Labrador dog. Before he had got more than a few feet from the house, the dog made a dash at something on the lane between a barn and garage. He pounced upon the something, lifted it, gave it a shake, then - very quickly - dropped it. Can't you guess what had happened? Yes, it had. He had met his first nose-to-tail skunk in action! Great unhappiness, but my husband jumped into his truck, drove down the lane to the beach at the foot of our property. Caesar (the dog) followed the truck to the beach, where he entered the salt water, then plowed up the beach with his nose, trying to escape his aroma. After a day outdoors in his kennel, we decided he was just barely able to spend the night with us. Quite an education!"

Now, from Stanley Robar, Clementsvale (April 2, 1981)

"The last skunk I ever saw around here was in 1926 and that was in a trap in to our camp at Banks Lake. Father and Uncle Avarad used to trap them around home and anyone could go back in our field and pasture and see them quite often, before the one mentioned above.

Kendall Longmire, who lives over in Milford, seven or eight miles from here, caught one last fall in his wood-house, he didn't expect a skunk, but saw where something was travelling in and out, so set a trap expecting a racoon, woodchuck, or porcupine. My brother Willis told me that 20 years ago, while driving through Deep Brook, he saw a whole family go across the road in front of him. They are down as far as Kings Co., the odd one, but the upper part of the province is full of them.

My sister lives in Pictou and they (skunks) live under a couple of small buildings. I have seen dead ones up that way all the way across to Cape Breton, but can't say if they are over there or not. But the most of people I asked had not seen one for years and years and the younger ones never had.

If I hear any more on the subject I will let you know."



Alice Fuller of Hantsport, sent this story to us

"Have you ever slept with a skunk? I have! In 1976 I went with my neighbours, their sons, girl friends and one Lab by boat to visit near the Ramshead River, Cumberland Co. We left the Creek at Hants Border about 3:30 a.m. and were able to thoroughly enjoy the huge moon and stars before the sunrise. The water calm and the shorebirds out for early feeding all added up to a thrilling experience in itself.

We had breakfast on board, later rowing ashore for a good day, finishing with supper on the beach. Plans for the younger ones to sleep out were foiled when the rain came so we settled in for an evening of stories and songs. During this time our host suddenly said "There he is!". From behind a built-in sleeping area came a baby skunk, while fest went up and silence reigned. A great rush to provide milk and solids and an explanation as well. They had found him (or her) in the hay field. Thinking to have him descented they drove off to a vet but didn't, as he would be dependant for a lifetime. Allowed the freedom of the house he found a place he liked.

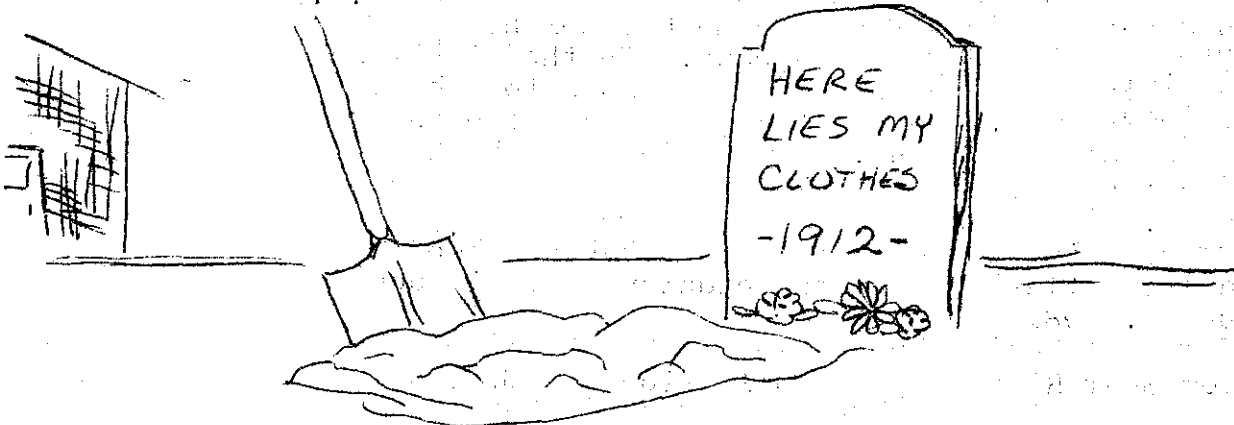
Our thoughts were mixed as we settled for the night, in sleeping bags on the floor and on the built-in. The food had been left out and much later he came out for a noisy snack and a prowl about. In the dim light it was possible to see where he was going before he returned to his hide away. No one slept well and the morning exchange of thoughts much fun. How old does a skunk have to be to be defensive? We were afraid to move in case he practised on us.

In time he went off on his way and hopefully not the one seen flattened on the highway near Diligent River on June 4, 1981."

From Bear River, the recollections of Milton Morgan (April 1, '81)

"As for the skunks they haven't been to plentiful in this section for a number of years. Kendall Longmire at South Milford had a trap set in his basement for rats, he came home one night and heard a noise in his basement, he went down the steps and turned on the light, there was a skunk in the trap. He shot the skunk, and as a result the odour went all through the house. I guess it was pretty bad for a while. I was told that a skunk was seen in Sc Range last year also. There was also one seen through to the Tobeatic Game Sanctuary, I was told that there is evidence that they are moving westward through the Annapolis Valley. Dad and I were driving from Annapolis in our Model A Ford one night, and I saw what I thought to be a cat coming along the side of the road. I saw just in time that it was a skunk, and that was about 1932, and the last skunk I saw around here. Edgar spoke of seeing one back near Chub Lake in 1917. I was back with Chauncey Parker at his camp about 1912-13 in the spring time, we had seen a mink just where the old fifth lake road crossed the stream, there was a pool there where we always took the canoe out, however one night when we had washed our dishes, I threw the water out the door of the camp all over one skunk. That was the last one I saw for a while. He was busy outside eating trout heads as we had been fishing. We were lucky that he did not spray us. The balcony (where the) boys and I dug out a den of skunks was out to Grandfather Rice's, just before Christmas one year. We thought we would make a little Christmas money. Some one had told us that if we could hold them off

the ground up in the air, they wouldn't spray us. We tried with a long pole and a snare on the end to lift them up. Mr. or Mrs. skunk got the snare around the neck, but one front paw was also through the snare. We couldn't choke it, we had to kill it anyway, so as a result we got sprayed. However we skinned it, and left the hide on the Parker ____? I was using grandfather's tools, his pick and shovel, I washed at grandmother's sink and wiped on the towel and everything was real smelly. However we didn't bother with the pelt, so we didn't get any Christmas money. We were living in the Ruggles house over on the corner where Mr. John Henshaw lived at the time of the incident. I remember getting a Christmas tree on the way home. Mother and Father were eating their supper when I arrived home, and I got sent out to the back porch with a tub of hot water and creolin, and had to bury my clothes, also I had to go get another Christmas tree. I did have two other experiences with skunks; one (at) the Armstrong level going to Landsdowne, one also back at Loches orchard with the MacCormack boys. Well enough about skunks. I haven't seen Woody D. for a while. Oh, yes, speaking about skunks, some of the men used to use chloroform in the dens to get the skunks as the pelts were worth a bit then. Thus getting so many, lessened their population around here."



Remember Woody D. from the previous skunk story??
Here's his story. (March 19, 1981)

"Was sitting with Livela at 5:30. Just for fun I ask her is ever (she) see a skunk. Yuh. Lotsa dead ones. Up Truro way. Garth Cress, son of Roscoe, could tell ya. None. I never see one in N.S."

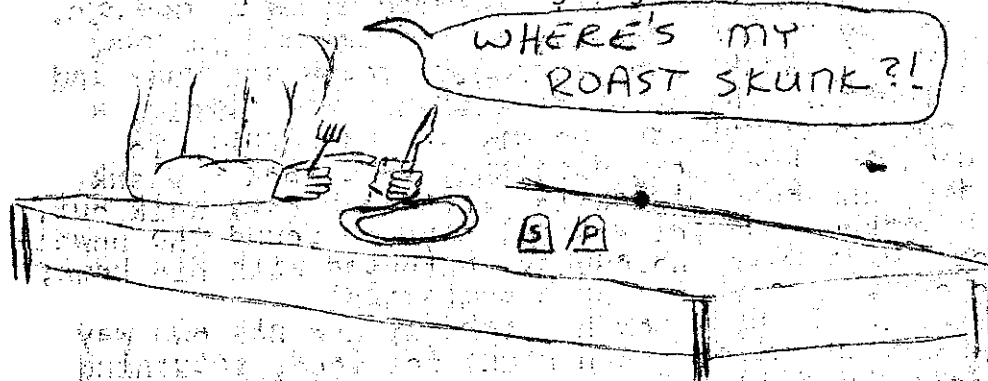
From Vince Rice of Bear River these sightings were reported
(April 5, 1981)

"Re: skunks. I have never heard him (father in law) say of ever seeing any but will ask him when I see him. Dept. people caught one near Handsled Lake about a year ago and about five years ago one was caught at Wileville near Bridgewater. I have seen them around Windsor area, killed on the highway, so they are moving this way."

Helen Beals sent along these skunk encounters -

"One summer in the 1930's my mother and I spent a holiday at Five Islands, Colchester Co. The old farmhouse in which we stayed was on a bluff above the beach. From it a steep, narrow road led down to a wharf where fishermen and boats and a smoke house marked a tiny fishing encampment.

Since our house had no such modern equipment as a refrigerator, we tried storing food in the cool cellar-way, but since this disappeared we decided squirrels or cats must be taking it. But one evening as we sat on the front steps to watch the view an unusual sight met our eyes. A large black animal somewhat larger than a cat followed by two smaller ones, obviously young, was making a slow and dignified procession, tails waving, down the road to the Beach. When we spoke of this to the fishermen they told us that there were skunks in the neighbourhood who regularly raided their smoke house for their good smoke cured fish. Though they missed the fish, they feared interfering with the skunks for fear of their well-known retaliation, harming both them and the fish. Both men and dogs treated the intruders with a respectful regard. This family procession to the Beach occurred evening after evening and we became quite fond of our placid and intriguing neighbours."



"Five years ago, when returning from a holiday in Cape Breton with a student in Biology, Pauline Crouch, who was rooming at my house, we saw near Shubenacadie the body of a skunk lying at the side of the road. We stopped to examine it. It was a particularly beautiful young animal with a rich pelt marked by the usual white and black pattern. Pauline decided it should be taken back to Wolfville for the Acadia Biology lab. She had a collecting sack with her but we arrived home in the evening after the college lab was closed. The question was what to do with our specimen until next morning. Rather hesitantly I suggested that if it could be wrapped well in three layers of plastic it could be put in the freezing compartment of my refrigerator. This we did and next morning it emerged with no unpleasant odour left behind it, and the beautiful creature was transferred to the lab freezer. Some weeks later an enterprising student volunteered to try the edible quality of the animal. It was skinned and the flesh roasted. It was said to be good in flavour, but very tough. The skin was prepared and mounted for the Department collection of Nova Scotia animals.

And so, we come to the last of our SKUNK STORIES...
Please turn the page for a SURE FIRE method of skunk removal!!

MY LAST SKUNK

by E.L. Eaton (April, 13, 1981)

The year was 1921. I had been married that spring, haying was finished and my father and I were picking a few early apples in the old orchard near the house when Akkub Schnare came in looking for a job picking apples for the fall. Ake, as we called him, was one of those sturdy, capable and able men from Lunenburg County who figured so largely in the skilled labour force needed to gather the huge quantities of apples exported from the Valley at the time. He had come to the area some years before, married a local girl, made his home half a mile away until she died, then he had sold the home and returned to Lunenburg. Now he was married again, wanted work for the fall, and, of more importance, a house to live in. The small tenant house we had was vacant at the time, so we soon made a bargain and the couple moved in at once.

A week or so later Ake came to me with an odd look in his eye. Did I know there was a skunk in the house cellar? Only long after did I realize that he probably thought some of us were playing one of those tricks on the newly weds and had put the animal in there. Assured of my innocence, he went on to say he had casually opened the cellar door when he spied the skunk, had carefully closed the door and had come to report. The means of entrance was simple, a window was open to ventilate and dry the basement. To get out could have been more difficult so I took a plank, pushed it down the open window to provide an easy walk out. Next day we looked, and for several days we found the unwelcome visitor apparently thoroughly contented with his home, and with no desire to vacate such comfortable winter quarters. I think now he probably had his own way of climbing out the window each night for food, returning quietly before daylight, as any well mannered skunk should do. The idea of a skunk as a permanent tenant was something none of us really favoured, but neither did any of us relish the thought of a direct confrontation. Then I thought of poison. Eggs we knew were a favourite diet, so I poked a hole in the shell of a fresh egg, inserted a fair quantity of potassium cyanide, closed the hole, lowered the egg carefully down into the cellar, sure that hunger and curiosity would soon entice the skunk to swallow enough to finish him off. No such result.

Patience and ingenuity exhausted, when Ake suggested using his shot gun I consented, with only one directive, "Shoot him dead". At such point blank range a 12-gauge shell was devastating, and mission accomplished, we returned happily to our apple picking. But not for long. A few days later, Ake reported a second skunk in the cellar. Of course I had to see for myself, and yes, in a dark corner I could dimly see the white tip of a tail twitching, much like that of a cat watching for a mouse. This one must have sampled the poison and was in his death throes.

My father and I agreed that nothing remained now but to carry the unwelcome visitor out. Then followed one of those little family dialogues, not really appreciated unless shared. He wanted me to go down alone, while I knew the sort of teasing I would get if I became saturated with the smell while he escaped. When I accused him of being afraid, that was an insult he could not take, so we both went down into the cellar. Strangely, we found the odour far from as strong as it had been in the kitchen. I leave it for some wiser person to explain that. When we got close enough to see, we found the front end wedged tightly between a couple of the large foundation stones, with only the tail end in sight. I dropped a jute bag over the little animal, seized the tail firmly through the fold of the bag, and pulled. With some difficulty I finally dislodged the animal, then stood up to discover I had not a dead or dying skunk but a very alive and vigorously protesting skunk! He was annoyed that we interrupted his den preparations. My hold tightened, we marched up the cellar stairs, out through the kitchen to the orchard where I deposited the victim carefully in an empty apple barrel. We placed the barrel on a long apple ladder, took it a safe distance from the buildings, leaned it over so our little guest could walk out easily, then, as his head came up over the opening of the barrel, it became my turn to shoot.

No one could miss at such short range and the charge had all the desired effect and more. It was the final demise for the skunk, but the two top hoops of the barrel were sheared off and a large portion of the staves disintegrated into chips.

When my dad and I walked back to the house to wash up, our respective wives were not long in telling us what we smelled like and what we had to do before entering the house. I am still sure these otherwise completely truthful ladies were both suffering from an overactive imagination. No one could possibly carry the odour they described. And after all, how could they know as well as we who had been in the midst of all the action?

Skunks had been relatively common in our area (Upper C Canard) until around that time and I recall none since. Many people with whom I talked were sure that heavy hunting and poison killed them off. I could never agree. It seems impossible that an animal so well adapted to survive near humans could have been destroyed so completely and so quickly, even had there been a public campaign, and there was no such general effort. My guess has been that some disease, perhaps related to the distemper that cat, dog, and fox breeders are familiar with, swept through the population. This could well have struck the hardest at nursing females and small pups, and if so, could have produced this effect.

My daughter reminds me of another incident in her childhood which would date to about 1930.

NESTING HABITS OF BIRDS

R.W. Tufts

In recent issues of the NEWSLETTER I have dealt with such aspects of the above subject as: Time of Year, Location of Nests, Materials Used, and Parent Behaviour. In this writing I shall comment on the eggs birds lay; their shape and colouration, concluding the series with some instances of eccentric behaviour at nesting time which are so bizarre that they defy all efforts when trying to theorise.

Everybody knows that the colouration of birds eggs varies, but it may not be so well known that there is a certain amount of functionable value in egg colouration. For instance the colour of many eggs is basically white with an overlay of speckles of dark shades, which vary in density. The shells of many are translucent to a degree, and these speckles diffuse the direct rays of sunlight thus preventing them from destroying the delicate embryo when exposed. All our woodpeckers lay plain white eggs that are so translucent that the yolks can readily be seen when held to the light. With no protective dark speckles these eggs are particularly susceptible to damage by sunlight if exposed, but normally they are never so exposed. The bird deposits them in the dark recesses of a tree cavity. The eggs of many ground nesting species are protected by camouflage. Their markings so resemble their immediate surroundings as to make them more or less invisible. Night-hawks, woodcocks and vesper sparrows are notable examples. The plain white eggs laid by many other species are of dense chalky texture which protects them from direct exposure to light. The same goes for those which are of plain unmarked colours such as robins. A deviation occurs here for which there appears to be no explanation. Chickadees and nuthatches normally lay their eggs in holes as do the above cited woodpeckers. They are sheltered from the sun's rays, but instead of being plain white in colour they are thickly spotted with shades of dark brown. The colour patterns of some eggs are beautiful. To me, those laid by the Olive-sided Flycatcher are the most attractive of all. Their ground colour is creamy pink with an overlay of lavender and rich brown shades concentrated about the ends.

Why some species lay many eggs in a setting, while others lay but one, is a question best answered by Dame Nature who has all the answers to such vagaries. Maybe those species which are more heavily preyed upon - grouse and ducks for example - lay larger clutches in order to sustain their numbers.

The shape of a birds' egg is so singularly characteristic that it is responsible for such words as ovate and elliptical in our dictionaries. Most of them are typically larger at one end tapering off gradually to smaller at the other. But there are two rather notable exceptions. For example all of our owls lay eggs that are noticeably spherical. I can recall the three eggs in the nest of a Barred Owl that could be mistaken at first glance for golf balls. If there is a reason for this it has escaped my notice. On the other hand, certain sea birds that nest on projecting cliff sides lay eggs that are shaped to the other extreme - much larger at one end and tapering off markedly to a much smaller extremity. There is said to be a functionable explanation here.

These birds lay their eggs on the bare rock with no protective lining such as nesting material normally provides. Should one of these eggs start to roll, as well it might for a number of reasons, it would do so in a circular manner rather than roll directly off the cliff to certain destruction. Leave it to Mother Nature to provide protective devices when the welfare of her 'children' is threatened by extraordinary situations.

In my many years of field experiences I have been confronted with a number of deviations from normal nesting behaviour. One concerns the materials used by a pair of Purple Martins to line their nest. It happened in Windsor some 30-40 years ago when these birds nested there regularly. The nest in question was in an eight-compartment martin house; all compartments were occupied. It was located on the premises of Basil Colbran who was one of my assistant migratory bird officerts at the time. When cleaning out the old nests he found seven of them were composed of normal dry vegetable material, but not so the eighth. It was lined with rusty nails, some straight, but many bent. There was just a pinch of dry grass discernable which suggested that the parents were not wholly forgetful of the comfort of their offspring. At the end of that season the cleaning process was repeated, and as before, one compartment was profusely lined with rusty nails.

Another case of abnormality at nesting time concerned the interaction between a Palm Warbler and a Hermit Thrush. While walking across the open barrens at Albany (Annapolis County) some years ago, a Palm Warbler flushed from under foot. Brushing aside some dry bracken I exposed a typical Hermit Thrush nest. It contained, at first glance, four eggs of the warbler and two blue ones of the thrush. Palm Warblers normally lay five eggs. Soon the fifth one was discovered. It was concealed below a second nest lining which, obviously, the thrush had added by way of getting rid of the unwanted intruders egg.

The story of what had happened here was as clear as though it had been written, though the motivations on the warblers' part of the drama will forever remain obscure. Both species nest on the ground. There was no question of competition for nesting sites. The thrush had built her nest normally constructed of dry vegetable material and typically lined with long pine needles. Before she had had time to lay her first egg the warbler had deposited an egg in the nest. On its discovery the thrush by way of getting rid of it, had quickly added another lining to her nest and laid an egg. Probably during her absence the warbler returned and laid her second one. The thrush laid one more, by which time there must have been a confrontation, the warbler - only half the size of the thrush - coming out on top. For from then on the warbler was apparently in full possession. The warbler always lines its nest profusely with feathers. It was noticed that a few feathers had been added to the thrushes nest, apparently by way of making more home like to the warbler.

Another deviation from normal nesting behaviour likewise involving a Palm Warbler was encountered in the same general area as the one described above. This bird also flushed under foot, and looking down I noted, to my amazement, two nests. They were located under a small conifer seedling and so close to one another that their eggs were touching. The inner nest was close to the tree trunk and contained three eggs which were warm. The outer nest contained two eggs which were cold. There appeared to be a slight difference in the nests construction. Both were lined

with feathers, but the inner one was somewhat more substantial. After having built the first nest and laying two eggs therein, why had she gone to the trouble of constructing another? Whatever her reasoning - if there was any such - it had cost her the labour of building a second nest plus the outright loss of two precious eggs. The ways of the wild are sometimes baffling, to say the least.

COMMON LICHENS John Erskine Reprinted from In Forest and Field, 1971

If you examine a cliff or a boulder long undisturbed, or the bark of an old tree, you will find that it is covered with spreading stains or with crinkly rosettes of paper-thin growth, grey or yellow or white. These are lichens. (Many people call them "moss", but true mosses are green and have stems and leaves, whereas most of these are greenish only when wet and are usually in the form of sheets or tubes.) Lichens are the poor relations of the plant kingdom, living on the leavings of the world, occupying places too barren to attract rivals and growing with infinite slowness and patience.

Lichens are really communities rather than plants. They are an unwilling partnership between certain fungi and microscopic green algae. The algae can manufacture their food from air and water, but without water they die. The fungi cannot manufacture their own food, but their spongy bodies store water for the algae and they feed upon the food that the algae produce. The algae are wild species captured and tamed by the lichen; the fungi are never found without the algae but are the dominant partners in the community. The fungal partner produces spores, after the fashion of fungi, and the fruiting discs which carry the spores may be seen on the surface of most flat lichens or on the fingertips of the bushy ones. These spores hatch out into tiny threads which must capture an alga in their first weeks of life or die of starvation. This is a very hit-or-miss business, so many lichens bud off dusty fragments, known as soredia, which contain threads of fungus surrounding an alga. This is like sending a son out into the world with the equipment for making a living, a surer method than throwing him out, like a spore, to trust to luck.

Lichens are not commercially important. In the old days dyes were made from many of them, and this is still practised although only on a craft scale. At all periods lichens have been used as a "starvation diet". Explorers have kept alive by eating rock-tripe; in prehistoric Scandinavia a sort of bread was made of ground reindeer-moss; and the Arabs used to gather quantities of rock-lichens that grew along the wind-passes of the mountains, a custom which has been offered as one explanation of the manna of the Bible. But the only excuse for studying the lichens lies in the fact that they are interesting, though, of course, only to the interested.

COLLECTING AND SCHOOL STUDY

It may seem that so difficult a group would be a wholly unsuitable subject for school nature study, but this is only partly true. The common species of the lichen flora are easy to learn, and the abundance of lichens during the winter in all areas, and the ease with which they may be preserved, makes them a satisfactory group for collection if only a cheap guide to the species makes a start possible. That is the purpose of this article. It offers a non-technical grouping of some thirty of our commonest lichens, leaving out minor distinctions. This should be enough to help the brightest pupil through an open winter, and for the rare enthusiast there are more complete volumes available.

In Nova Scotia our commonest type of lichen is that of frilly rosettes on rock or tree-trunk, and the larger sheets on ground and rock; the next commonest are grey beards hanging from branches or rising bushlike from poor soil; then there are innumerable erect lichens like goblets or candlelabra; and finally there are crusts and stains on soil or rock or bark, but, because of their difficulty, only one of these is included.

English names for lichens are not very useful, for not more than three species have reached any popular recognition but unhappily the scientific names are little more standardized. I offer English names, adopted or adapted from those used in THE LICHEN BOOK by G.G. Nearing, and I append the Latin names for anyone who may wish to follow these plants into other works. (Key to Lichens in next issue)

The remainder of John Erskines' article will appear in the next(March)issue of the BNS Newsletter. All of you who think you may be behind in dues, please ensure the matter is taken care of in order that you receive coming issues!! Lichens are the order of the day on Monday, April 19 when Karen Casselman speaks to the monthly BNS meeting.

DUES: \$5.00 per year
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