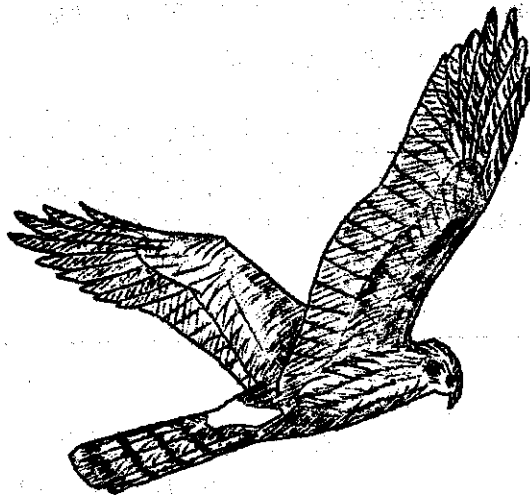


Blomidon Naturalists Society Newsletter



Volume 5, No. 3
5, No. 4
6, No. 1

September, 1978
December, 1978
March, 1979

Lecture Programme for April & May

Tuesday, April 24 8:00 p.m. Rm. 241 Beveridge Arts Building

Anne Linton, The Food and Feeding Ecology of Leach's Storm Petrel

Anne came several years ago and presented her first summer's experience studying bird populations in the high arctic. Some of you may remember this and her beautiful slides. This programme is based on her research for her Master's degree.

Monday, May 14 8:00 p.m. Rm. 241 Beveridge Arts Building

Roy Bishop, An Air View of Canada and the Solar Eclipse

Roy's slides taken as he flew across Canada on an Argus recently and then followed the track of the solar eclipse.

And

Andy Dean, Natural History of a New Minas Woodlot

Andy has a new slide-tape show for us; a photographic essay with a seasonal approach to the flora and fauna of this particular area.

Please do everything possible to attend these meetings. Before we went into "limbo", attendance at meetings was very poor, indeed. Embarrassingly so! Unless some sort of support is shown on these two occasions, it will probably not be feasible to plan field trips for the summer months or continue with lectures and newsletters in the fall. The survival of BNS does depend upon you! Mark your calendars before you forget.

You may have noticed that this newsletter is three numbers in one! The editors make no apology for this as the plight of the executive was made plain a year ago. Moreover, the past year was inordinately busy for all of us. This newsletter is being sent to all members who were in good standing for 1977-78. Dues are waived for 78-79. The BNS has had a long winter's nap, and as Jean has indicated above, whether it lays down for a much longer sleep will depend on the interest shown in the society between now and next fall.

Roy Bishop

THE BLOMIDON NATURALISTS SOCIETY NEWSLETTER

Is published quarterly by the Newsletter Committee of the Society.

Co-editors: JEAN TIMPA AND ROY BISHOP

Art/Production: ROY BISHOP

"....the primary object of the Society shall be to encourage and develop in its members an understanding and appreciation of nature. For the purposes 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

Do You Want to See Northern Lights?

Other Interesting Phenomena?

Last August there was a display of northern lights such as this part of the world has not seen in many, many years. As I watched this spectacle I felt frustrated, too, knowing how many of you were blissfully sleeping away when, being such intrepid naturalists as you all are—I knew how disappointed you'd all be when you would find out what you had missed. I thought then we should establish a "hot line" for such things. So, anyone wanting to be alerted 24 hrs a day to such things, call 542-5678, Jean Timpa, and I will keep a list of you to call.

Acknowledgements

Our thanks to all those people who have made this Newsletter possible - for letters to the Editors, articles, typing, illustrating, addressing and licking stamps!

Letters to the Editors

In response to Larry Bogan's article in our June 1978 issue, The Status of the Blomidon Naturalists Society: A Crisis, the following letters were received:

Wolfville, N.S.
August 4, 1978

Dear Mr. Bogan:

Probably not too many members have responded to your plea for 'help' and ideas concerning the future of the B.N.S. I have read it thoughtfully and have pondered long before expressing my views.

First let me say that I do not see any possibility of finding among our members any group which could, or would be willing, or capable of giving the Society the leadership which you, Roy Bishop and Mrs. Timpa have provided to date. Of course I am not familiar with the personnel of our membership, hence the foregoing statement may be incorrect.

I was not aware that the meetings - some of them - have had such poor attendance. My wife and I gave up attending them because we are both a little hard-of-hearing.

You deserve much credit for illustrating the NEWSLETTERS so artistically and I find them very interesting. I have them all on file. I would be most sorry to see the Society 'fold' and lose its identity and do hope that as a result of your timely appeal its closure may be averted. I await further announcements with interest and apprehension.

Most sincerely,

R. W. Tufts

Blomidon Naturalists Society

Attention: L. Bogan

Dear Mr. Bogan:

The June Newsletter and its plea for feedback was just read now.

What is the future for BNS? Your points 3 and 4 appear most desirable to me.

am one of those new but negligent members. I am very interested for myself as well as the opportunity to expose my family to BNS, but we are selective and lead very active lives. Our apparent lack of interest is more lack of opportunity than lack of interest.

BNS is local and should stay that way. The academic community of Acadia can be a mainstay or core. However, to get more involvement I believe that BNS could create a student membership and create a student naturalist club at each high school in the area. These clubs would have a very transient nature but should be a desirable feature for Natural Science teachers and the school itself. And it would fulfill objective A. Objective B with youthful vigor and emotion could also be valuable. Nature does not reflect age as the human society does and consequently the youth of the membership would not have a detrimental effect on the society and perhaps BNS can assist in teaching respect for nature on a much broader scale.

The academic leaders at those branch groups could be a very active committee or core group.

Another suggestion would be to up the membership fee and allow for a bit more advertising.

Has BNS ever voiced opinions on snowmobiles, on Hunting, on Fishing, on Pollution? or are we a very passive group admiring what is left?

All I wanted to do was give some support in the form of suggestions.

Hoping we can save BNS, I am

Alf Gerritse.

Nova Scotia Bird Society
July 26, 1978

Dear Jean:

Please let me congratulate you on the Blomidon N. S. Newsletter - it's attractive lay-out, and very interesting contents.

I think it is splendid to have the John Erskine material reprinted, such a good idea, everyone should have a chance to read of his work; and he writes so beautifully.

Forgive my unasked opinion! But I would suggest with 70 - 90 members the "Chignecto" type society would be most likely to succeed. You need a big "resevoir" of people to support evening meetings. Also, this more informal set-up is likely to bring more possible leaders to the top - less frightening. So give much surer hope of growth. Sincere sympathy - I speak from sad experience.

Phyllis Dobson
Editor-in-Chief
Nova Scotia Bird Society

DEATH IN THE AIR

That birds frequently make physical contact with other birds while in flight is a common occurrence. We have all witnessed an irate Kingbird 'put the run' to a passing Crow by lambasting its back-side while attacking from above. Or maybe it was two males of any given species, in spring, in apparent mortal combat over disputed territorial rights. Numerous other similar examples can be cited. But as a rule (except when a predator attacks its prey) nobody gets badly hurt. Here is an unique exception.

It happened at Greenwich, Kings County, in broad daylight on April 14 last. Ross Walsh, one of the local residents, phoned to tell me that while he was talking in his yard with a neighbour his attention was diverted by a commotion of sorts directly above and looking up he was amazed to see two Robins falling. When he reached them one was dead and the other died after quivering a few moments. After asking for an explanation, which I was unable to provide, he said "they are lying on the hood of my car and are yours if you want them."

By the time I arrived his cat had made off with one of them. The one I collected was a female. The other he identified as a male, its head being much darker. But the sex of the victims is inconsequential except that it does tend to preclude the incidence of an ordinary quarrel which is more likely to occur between males. The puzzle

to solve is - WHAT REALLY HAPPENED? I performed an autopsy. By removing the skin from the upper breast to the beak I was able quickly to determine the cause of death. The bird's neck was severely broken close to the skull. Further examination revealed an area of discoloration, about the size of a dime, on top of the skull. It was quite evident that it had been caused by a blow of some kind. How, and by whom the Blow had been administered, I'll leave to the imagination of my readers. I seem to recall that people sometimes die as a result of accidental head-on collisions on our highways. Why not by birds in the air? There is no other logical explanation of what happened to these Robins.

R. W. Tufts
Wolfville, September 17, 1978.

Bird Nest Survey 1978

Bernard Forsythe
Wolfville, N.S.

Recording bird nests for the Maritime Nest Records Scheme can become almost a year round hobby. This year began with a Raven nest under construction on February 17 and a Great Horned Owl nest with one egg on February 28. My last nest was that of a Wood Pewee with 2 feathered young on September 3. This was her second nest for the year. Two young fledged from her first nest the last week in July. Both nests were in hemlock trees about 30 feet from each other.

Our dry spring and summer was a help to most of our nesting birds. If they lost their first nest to a predator, they had lots of time for a second try. Again this year the most serious problem with the smaller birds was the Cowbird. I found their eggs or young in 19 different nests. Perhaps the nests that I find are also the most obvious for the Cowbirds, and the many nests that are concealed better escape the Cowbirds.

Several nests found this year were new for my list. I was especially pleased to locate the nests of 4 different species of Owls in the one season. Some nests came easy, like the Bittern nest that I stumbled upon while I was looking for the Short-eared Owl nest on Grand Pre Dyke. Others took many hours of enjoyable observation such as the Golden-crowned Kinglet, Bobolink, and Rusty Blackbird nests.

This year I had 172 nests representing 54 different species of birds. Following is a list of the nests found and their outcome.

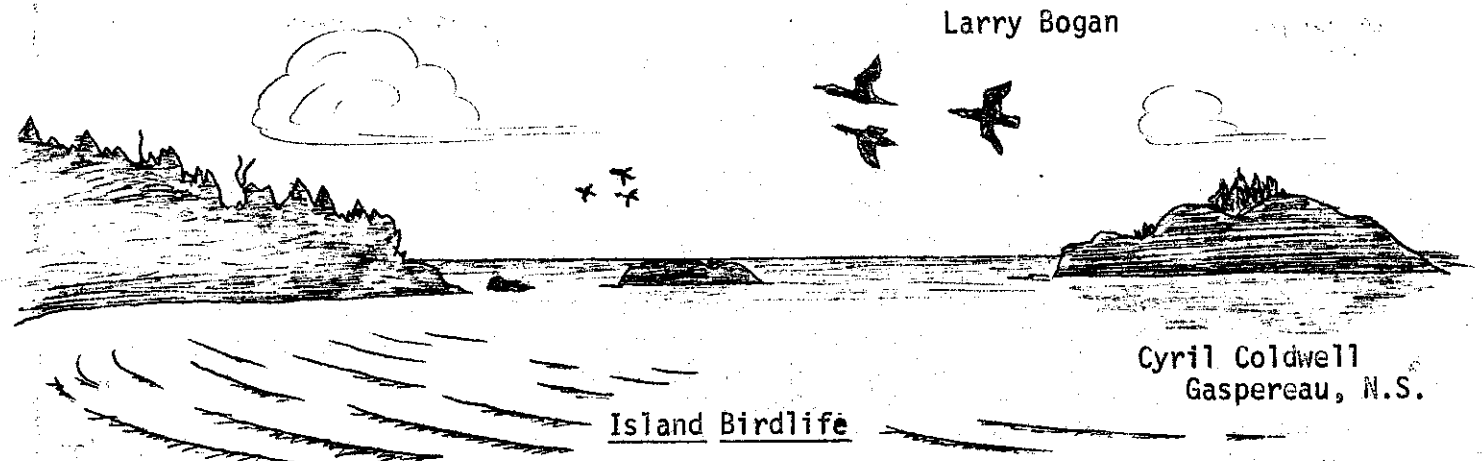
Number Found	Species	s=successful; f=failed	Number Found	Species	s=successful; f=failed
1	Common Loon	F	5	Common Raven	5S
1	Double-crested Cormorant	F	16	Common Crow	7S;8F;1?
1	Great Blue Heron	S	1	Black-capped Chickadee	S
1	American Bittern	S	5	Gray Catbird	3S;2F
2	Hooded Merganser	2S	12	American Robin	8S;4F
3	Goshawk	1S;2F	1	Hermit Thrush	S
1	Red-tailed Hawk	F	5	Veery	4S;1F
1	Ruffed Grouse	S	1	Golden-crowned Kinglet	S
4	Ring-necked Pheasant	2S;2F	5	Starling	5S
1	American Woodcock	S	5	Red-eyed Vireo	1S;4F
2	Great Black-backed Gull	2S	1	Black-and-white Warbler	F
1	Herring Gull	S	7	Yellow Warbler	3S;3F;1?
3	Rock Dove	2S;1?	3	Chestnut-sided Warbler	2S;1F
1	Great Horned Owl	F	1	Ovenbird	S
1	Barred Owl	S	3	Common Yellowthroat	1S;2F
1	Long-eared Owl	S	2	American Redstart	1S;1F
1	Short-eared Owl	S	1	Bobolink	S
4	Common Flicker	3S;1F	9	Red-winged Blackbird	7S;1F;1?
1	Downy Woodpecker	S	1	Rusty Blackbird	S
2	Eastern Kingbird	1S;1F	2	Common Grackle	2S
2	Eastern Phoebe	1S;1?	19	Brown-headed Cowbird	10S;9F
8	Alder Flycatcher	6S;2F	3	American Goldfinch	2S;1F
2	Eastern Wood Pewee	2S	3	Savannah Sparrow	2S;1F
1	Tree Swallow	S	2	Dark-eyed Junco	2S
1	Bank Swallow	S	2	Chipping Sparrow	2S
1	Barn Swallow	S	1	White-throated Sparrow	S
1	Blue Jay	F	7	Song Sparrow	4S;2F;1?

A NOTE ON THE B.N.S.

It has been, what seems to me like ages since we all gathered for a programme. In the summer we had one excellent sitting for viewing of Andy Dean's photographic talents, but alas we had no field trips to contact our natural history directly.

I assume that I still bear the responsibility of president of B.N.S. since there was no change of executive last year. However, I have not had time this year to lead the Society. The B.N.S. is not dead, just in limbo, as I see it. An active, executive is needed. Then we will get back on the schedule and hopefully be as active as past years.

The area needs an organization that will help keep us in touch with nature. Too often in our rush to make a living, we forget how to live. I believe the B.N.S. is that needed organization.



During the spring and summer of 1978 some members of the Acadia Biology Department visited several offshore islands of Nova Scotia. Although these trips were chiefly in the interest of Great Blue Heron breeding ecology, a study being conducted by Terry Quinney, members of other species were also noted.

On Bout Island 26 pairs of Herons built nests, and out of these 24 fledged young of which 80 individuals were banded. Approximately 2 000 pairs of Gulls breed here every year with Black backs outnumbering Herring 2 to 1. Double-crested Cormorants were estimated at about 60 pairs. A pair of Long-eared Owls successfully reared 3 young. This pair seems to be permanently established. Other birds using the island location were Crows (6 - 10) pairs, Raven 2 pairs, Ring-neck Pheasant 3+ nests, Black Duck nesting sparingly (too much competition). Bank Swallows making good use of the east bank of the island with approximately 40 active burrows observed.

Bon Portage Island off Shag Harbour, Shelburne County, had somewhat different conditions. Out of 11 Heron nests built only 3 fledged young with a total of 10 banded. Gulls were nesting over most of the island that was not wooded, but no actual count was taken. However, it was noted that Herring Gulls outnumbered Black-backs at least 3 to 1, which was a switch from Bout Island. A pair of Osprey hatched 2 young. One Eider Duck was found incubating 3 eggs. Leach's Petrel nest burrows were everywhere, and although a count was almost impossible there are no doubt 1 000+ pairs breeding here. One night of mist netting yielded 141 adult birds banded. Although the Fox Sparrow is a spring and summer resident here, so far a nest has not been found, but there is every indication that it is breeding.

Pinnacle Island, one of the five island group in Colchester County, was visited in late June. 41 Heron nests, all containing nearly fledged young, were counted. Double-crested Cormorants were estimated at 50 pairs. Both species of Gulls were found nesting but in small numbers.

Diamond Island, another of the group of five, was checked for possible Peregrine nesting but proved unsuccessful. Thirty years ago there was a long-established eyrie here, but for many seasons now the birds have not returned.

Wolfville Christmas Bird Count - December 30, 1978

*compiled by Professor Peter Smith
and many helpers.
Wolfville, N.S. and Area*

Canada Goose 13; Mallard 24; Black Duck 648; Pintail 1; Common Goldeneye 4; Common Merganser 14; Red-br. Merganser 1; Sharp-shin. Hawk 8; Red-tailed Hawk 22; Rough-legged Hawk 3; Bald Eagle, adult 9, imm. 3; Marsh Hawk 1; American Kestrel 2; Ruffed Grouse 4; Ring-neck. Pheasant 226; Gray Partridge 63; Common Snipe 5; Great Black-back G. 841; Herring Gull 2201; Rock Dove 898; Mourning Dove 93; Pileated Woodpr. 1; Hairy Woodpecker 8; Downy Woodpecker 14; Horned Lark 268; Blue Jay 188;

CONTINUED OVER →

WOLFVILLE CHRISTMAS BIRD COUNT - Continued

Common Raven 242; Common Crow 13384*; Bl.-cap. Chickadee 123; Boreal Chickadee 2; White-br. Nuthatch 2; Brown Creeper 4; American Robin 9; Varied Thrush 1; Golden-cr. Kinglet 14; Northern Shrike 2; Starling 3416; House Sparrow 2278; Red-wing. Black-bird 2; Common Grackle 2; Brown-head. Cowbird 464; Evening Grosbeak 354; Purple Finch 2; Pine Grosbeak 7; Am. Goldfinch 5; Dark-eyed Junco 120; Tree Sparrow 13; White-thr. Sparrow 11; Swamp Sparrow 1; Song Sparrow 23; Snow Bunting 245.

*(counted on evening flight lines to roost site)

No. of Species 51;

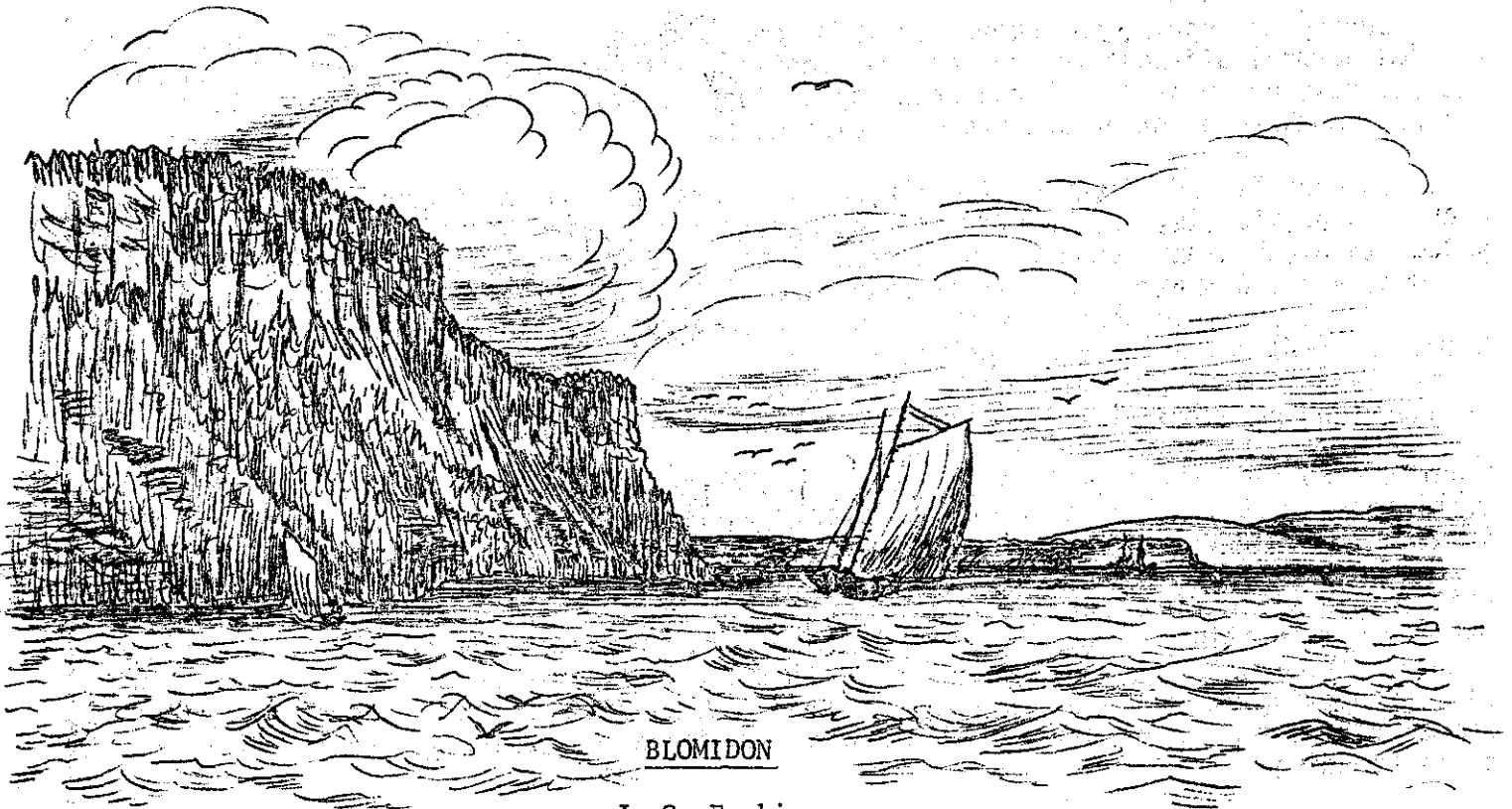
No. of Individuals 26289.

Our congratulations to Peter Austin-Smith for spying the Varied Thrush in the swamp opposite Hennigar's Fruit Stand. It belongs out in British Columbia!

Editorial Comment

Roy Bishop

Now and then in this life one happens upon a thing of beauty. It may appear in one of many forms: the first call of a song sparrow in March, the aurora on a frosty night, a child lost in wonder over a spider web, a poem. Concerning items in the latter category, the naturalist H. D. Thoreau once said: "A written word is the choicest of relics. It is something at once more intimate with us and more universal than any other work of art." Courtesy of Rachael Erskine, the editors of this newsletter are able to present the following article. It is a thing of beauty, especially so for those of you who know Blomidon, and we can be thankful that a man of John Erskine's sensitivity and knowledge has been willing to share his impressions of the great landmark to the north of us.



J. S. Erskine

(Reprinted from the Journal of Education, Series 5, Volume 9, No. 1, p. 44, November 1959)

THERE is not a landmark in Nova Scotia which has been known and loved by more people than Blomidon. Northward across the Minas Basin from Grand Pré the cape rises as a steep angular line cutting across the succession of horizontal planes which make up the landscape --the water of the bay at high tide or the shining mud flats at the ebb, the higher terrace of an old beach that stretches up the Valley, the planed ridge of the North Mountain stretching westward from the cape, and in the distance the truncated tops of the Cobequids. From Hantsport to New Minas one can see Blomidon, and it seems the same from everywhere, a short vertical drop from the top and then a steep slope to the sea. But if you notice the proportion of drop to slope, you find that it is never twice the same and that as you go eastward the proportion of drop increases. It is a different Blomidon that one sees from Hantsport and from Wolfville, for each is an outline of a section of the great cliff that wheels around half a circle before turning westward to Cape Split.

Geology

The Indians knew all about the origin of Blomidon. The great beaver had built a dam across from Blomidon to Cape D'Or, and Glooscap, returning from his hunt, wet his moccasins in the new Minas Basin. He remarked: "There must be a small beaver hereabout," and

kicked out the beaver-dam. The outrush of the water washed the end of the dam around, giving the curve of the land to Cape Split.

Geologically the explanation is different. It is said that once the South Mountain was a great range five miles high. Then for many millions of years sun and rain, frost and glaciers gnawed at the rocks, and the rivers carried the eroded sand and clay northward in a great incline thousands of feet thick. Then in Triassic times, perhaps one hundred and fifty million years ago, a fault in the rock to the north began to release vast quantities of basaltic lava from very deep in the earth, and this lava overflowed the sands and muds which had been reddened by the desert conditions of earlier times. Several eruptions occurred, with pauses of centuries between them when rivers carried down deposits of sand upon the lava before a new eruption covered the new sand. The lava hardened into trap rock, and again the rivers from the South Mountain flowed northward and cut gaps in the North Mountain on their way to the sea. New faults developed, east-west cracks forming in the rock along Fundy and the Valley, trapping the rivers and turning the lines of erosion at right-angles to the older slope. The lava was undermined by the erosion of the softer sandstones, fell in and was carried away, except along the narrow island of the North Mountain where there were no rivers to erode it. That is the explanation of Blomidon's profile. The steep drop is the edge of the trap rock, the slope is the softer sand and mudstone beneath. At high tide the sea gnaws at the shoreline, steepening the angle until the slope crumbles and undermines the basalt which breaks off in great cubes and starts the long slide down to become a new breakwater at the shore.

On summer days when the sun shines and sky and sea are blue, there is a rich beauty in the red sandstone cliffs with their crown of grass and poplars and dark spruces. South of Whitewaters there is no trap rock to protect the cliffs so that they retreat faster than those of the cape. Here the cliffs are some thirty feet high, red sandstones varied by narrow bands of fibrous gypsum, and the smooth curve of the cliff is broken by abrupt indentations and even more abrupt projections. The indentations bear a close resemblance to glacial cirques and seem to be formed by the same forces. In winter occasional rain and stormy high-tides wet the whole face of the cliff, which then freezes and is shelled off by the expansion of the ice. So the cliff is retreating evenly. But in many places there are trickles of water draining over the top and wetting the rock at all times, so these points are eaten back by the frost at a much more rapid rate and become half-cylinders gnawed into the cliff. In other places small brooks pour over the cliff, and here the continual flow of water prevents freezing except in the most extreme cold, so that at these points almost no erosion takes place and the brooks flow over rounded buttresses like apses of stone-built churches.

Flora and Fauna

The face of Blomidon, forever changing, preserves a constant sameness which has lasted many thousand years. The mud-slides of the slope harbour the annual weeds of cultivation but there are also survivals which adapted themselves in the dawn of the world to barren soils and scanty sunshine. Acres are covered with scouring-rush, comparatively rare elsewhere, or with a small club-moss near the southernmost end of its range. Higher on the talus, among the tumbled cubes of trap, grow rock-cress and whitlow-grass and saxifrage, lovers of alkaline rocks and freedom from competition. Our last glacial period was an irresolute one and advanced and retreated four times. It seems that its last advance but one covered Nova Scotia entirely with ice and, when it withdrew, it left the land cold and scarred, its soils stripped away or replaced with gravel and barren clay. The pioneer plants of the tundra moved eastward behind the retreating ice and lodged here. The cold returned for a last onslaught, but no ice-sheet reached Nova Scotia where only local glaciers flowed through the valleys and over the flat lands. Gradually the boreal forests returned, shading out the pioneers of the ice-edge. But not on the face of Blomidon. Here the shifting muds did not support trees, so the pioneers lingered on, perhaps the oldest Nova Scotian residents.

The woodland of the crest of Blomidon is chiefly spruce much scarred by porcupines. Such woodland is not natural and results, like the alders, from the fires of early settlers. For this hardwood land was what first caught the eye of the New England planters. Diked land was unfamiliar to them; the birch and pine sands of the valley were anathema to farmers without artificial fertilizers; but rich hardwood lands like the North Mountain guaranteed farms that would endure for generations. So the early population spread in a thin line along the dikes and down the North Mountain, while the Valley beyond Kentville lay empty for three generations. We forget that the town of Berwick grew up at the important crossing where the new post-road met the track from the flourishing port of Harbourville.

There are no farmers left on the top of Blomidon. Their houses have become empty cellars and tumbled barns, with only clumps of lilacs, musk-mallows and bell-flowers marking the pride of forgotten housewives. The fields are disappearing beneath alders and spruce but beyond them the forest remains. It is dangerous to follow the beach, for the way is miles long and the tide rises swiftly. But, if you should, you would see the steep cliff of Blomidon increase in height and the mud slope decrease until it vanishes into the beach. Here in a welter of basalt blocks lie trees which have tumbled hundreds of feet,

and porcupines which have missed their footing. The cliff is not always so steep, and in a few places it is possible to scramble up the slope, clinging to ill-rooted trees, into a tilted wood where wild onions or great-leaved goldenrods of the north blossom in the shadow and where winter wrens sing and white-breasted nuthatches *ank-ank* among the moose maples.

The cliff is less high now, and, if you follow the top of the outer curve for another six miles, you will see it become even lower. Not that you see it often, for the woods are almost unbroken. There in May before the leaves have come, the ground is white with spring beauty and the pale cream of Dutchman's-breeches. Another month and the mother partridge creaks and whines anxiously as she trails her wing before you, and the small brown young explode under your feet into hurried and ill-guided flight. Occasionally the trail skirts a cleft so sheer that no plant can find footing, and there you glimpse the sea far below and herring gulls that soar across the gap in effortless grace and beauty. At last the trees thin out and ahead sounds the yodelling of black-backed gulls. There is an open triangle of grass and stunted spruce, a cloud of rising wings and Cape Split.

You have not reached the tip, nor ever will you. The cliff has broken away, and a chasm divides it from an islet, green-topped, upheld by great cliffs of rotting basalt, and beyond that lower and smaller pinnacles drop progressively down towards the sea. One often starts the walk to the Split on a cloudless day and arrives to find the cape huddled in fog and the outer pinnacle a dim shadow outlined by the warning voices of the gulls. But on a sunny spring day the sight is glorious. On all sides the cliffs fall away sheer two hundred feet to a shore of scoured ledges and great boulders, grey cliffs made brilliant by sheets of orange lichen. On the gull rock the flat table is covered with brooding birds and downy young between tufts of purple-flowering yarrow. On ledges on the cliff perch herring gulls that look graceful and small in contrast to the heavy blackbacks, and on the outer pinnacles the cormorants sit in rows, their wings outspread to dry in the sun. Whitebacked eider and small black guillemots ride the waves far below. To the northward rise the cliffs and hills of Cumberland County, farther west Isle Haute lifts steeply from the sea, and then the wide sweep of the Bay Shore fades into the mist.

Thus far local efforts to have Cape Split made into a national park have been unsuccessful, for which one can only be grateful. Here and there the grass is scarred by the harmless black patch of a picnic fire, but in general it is free from the litter of the age, from the forest fires of careless smokers and from the over-regulation of officialdom. No doubt many people visit the cape, though I have never met any. Instead there has been grey fog or blue distance. If the tide is going out, there is the great roar from the rip where the water rushes over the rocks and between the pinnacles of the cape like a river three miles wide. And when the tide is still, there is no sound but the whistled song of the sparrows among the outermost trees and the eternal challenge of the gulls on the cliffs.

BNS DEADLINE - JUNE 21, 1979

Please HELP! We need articles, ever so brief as they may be or letters to the editors. The same ones are doing all the writing. It's time for a change! See anything unusual this winter besides little snow? Tell us about it! Did you travel to strange climates? Share it with us, please. Poetry? Original or copied, always welcome. Bring contributions to the meetings and give to Jean Timpa or Roy Bishop or mail to Jean Timpa, Box 1382, Wolfville, N.S.

From the Outdoor Chat column, Shelburne Coastguard

Dr. Harrison F. Lewis

No. 4, May, 1953

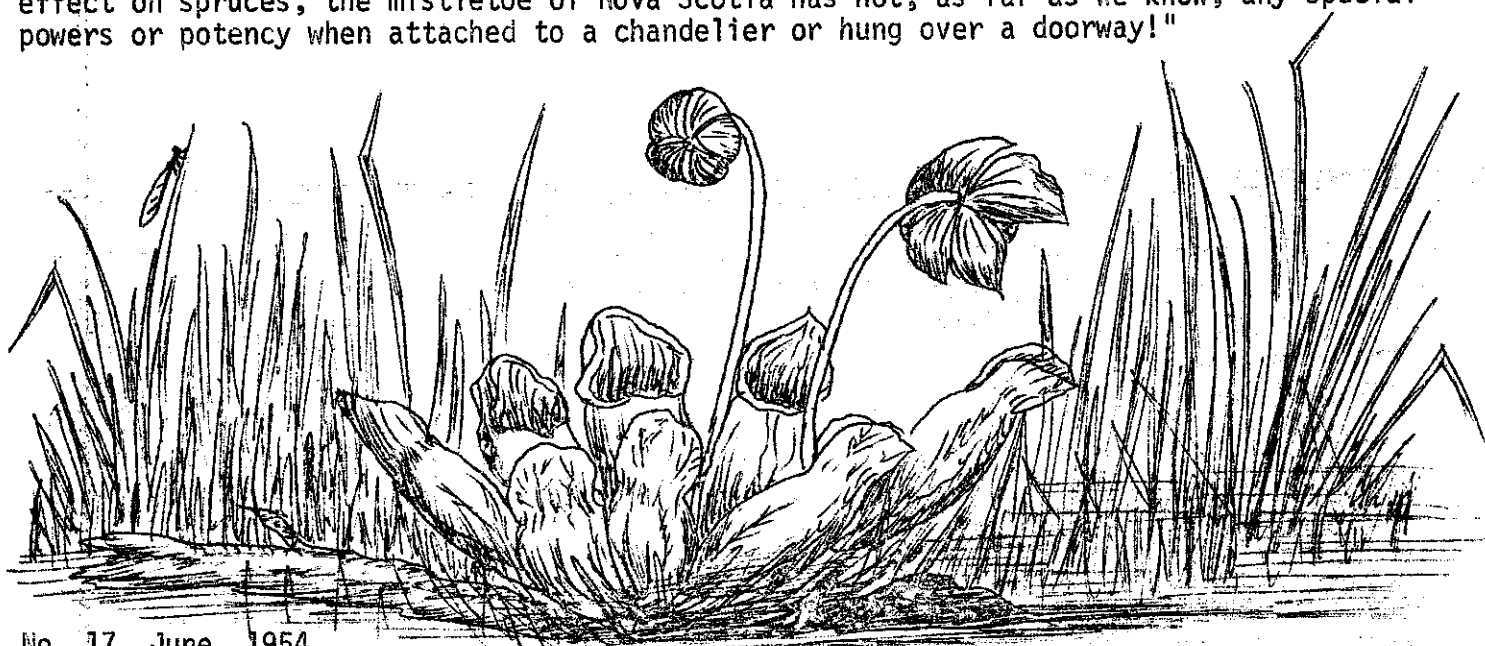
"Some of the tender young leaves that appear in spring are edible as well as ornamental. No two persons will wholly agree about the palatability of the various kinds of spring greens, but in general they may be divided into two groups - those that can be eaten and those that it is a pleasure to eat. In the first group, in the writer's opinion, are the bases of the tightly rolled new leaves of the cinnamon fern. As boys, we used to pick some and chew a mouthful or two, at a well chosen time when other people were present to see it done. We felt that it was a manly thing to do - it savoured of wildlife wisdom and living off the country - and it proved that those pieces of leaves could be eaten. Somehow, we never felt called upon to follow up this demonstration by substantial consumption of those greens.

We have, however, various kinds of wild fresh greens that many people find really toothsome. Some will include dandelion greens in this group. The younger these greens are picked, the less bitter they are likely to be. Much more generally attractive are the boiled young leaves of dock and young leaves and branch-tips of lamb's-quarters or pig-weed, a common garden weed.

Superior to either of these and very tasty are young leaves and branch-tips of orach, a low-growing annual that occurs along the shore. It resembles lamb's-quarters, to which it is related, but many of its leaves are coarsely toothed and the growing stem-tips are not pinkish, as they are in lamb's-quarters. Orach frequently grows on decaying eel-grass, just above highwater mark, and therefore is likely to abound on the shores of quiet, sheltered coves. To prepare it for table use requires only brief boiling, as it generally contains sufficient salt for its own seasoning."

No. 15, April, 1954

"One of the April wild flowers is so distinctive and remarkable that it deserves a paragraph to itself. It is very common in Shelburne County, yet many residents have never seen it. Probably there are few, however, who have not noticed on spruces large, dense, tufted growths that are known as "witches' brooms". They are abnormal growths of the spruce tree itself, but, like a gall on a golden-rod stem, they indicate that something is wrong with the plant where the growth appears. The "something" that causes witches' brooms to develop on spruce trees is an abundant growth of a small parasitic flowering plant, very different from the spruce itself. If you part the dense growth of a witches' broom and look at the small branches of which it is made up, you will easily see, projecting from their bark, the bare brown parasites, which are about half an inch long and have tiny yellow flowers. These inconspicuous parasitic plants, which appear inconsequential but do much harm to spruce trees, are dwarf mistletoe! Little as they resemble the imported, green-leaved mistletoe that is familiar as Christmas decoration, they are closely related to it and their claim to share the name is beyond dispute. In spite of its marked effect on spruces, the mistletoe of Nova Scotia has not, as far as we know, any special powers or potency when attached to a chandelier or hung over a doorway!"



No. 17, June, 1954

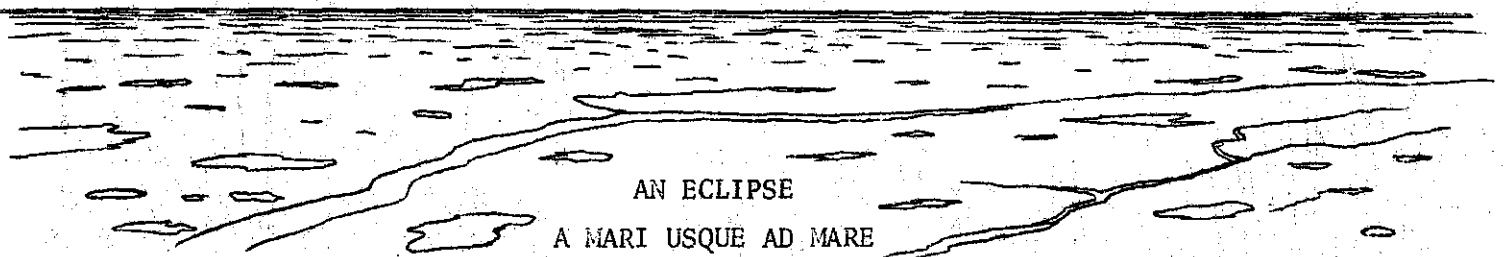
(1) "Everyone knows that many insects feed on plants, but it is not so widely known that some plants catch and "eat" insects. In Shelburne County three kinds of these carnivorous plants are common. They all live in bogs, where their roots can obtain little nitrogen, and presumably their utilization of richly nitrogenous animal forms makes up for this deficiency.

The largest of our insect-consuming plants is the well known pitcher plant, now coming into bloom. The solitary, nodding flowers, about two inches broad, are purplish-red externally and yellowish-green within. Each flower is borne on a smooth stalk that arises from a rosette of curious foliage. The green-and-red leaves are four or five inches long, hollow, and open at the top. Each one is shaped like a curved trumpet, with a narrow wing along one side and a partial hood at the summit. Insects and various other creatures, such as spiders and millipeds, enter the open tops of the leaves, perhaps for shelter or to feed on others previously trapped, or for other reasons. The inner surface of the hood is lined with numerous short, stiff bristles, all pointing downward, so that the small prey readily descend into the leaf's cavity, but are hindered in climbing out. The cavity usually contains rain water, mixed with secretions of the plant, and in this mixture the victims drown. As their bodies decay, the plant absorbs required nourishment from the liquid surrounding them. These peculiar traps are very successful, as anyone may ascertain by opening a few leaves.

(2) "At this time the tree swallows nesting in bird houses or old woodpecker cavities are working hard all day, capturing flies, mosquitoes, and the like and carrying them, a billful at a time, to their fast-growing nestlings. One who watches carefully a home of these birds at this season may find that the parents have helpers. It is quite common for tree swallows without parental responsibility to join in feeding others' nestlings. Most of these assistants are adult tree swallows that for some reason have failed to hatch

young or that have lost their broods through predation, parasitism or accident. Toward the close of the nesting season, however, many young tree swallows that are already on the wing and self-sustaining join in the fun of attending delayed youngsters that are still in some nests, though such youthful helpers often seem more interested in admiring the nestlings than in the hard work of feeding them. The real parents usually resent these neighbourly intrusions, no matter how well they are meant, and try to chase the volunteers away, but as time is pressing and the affairs of life are too urgent to permit much bickering or delay, they eventually resume the feeding of their children and let others help if they want to. Where young tree swallows are still in the nest in July, it is not unusual to see four or five adults bringing them food.

A few years ago no less than 115 tree swallows, adult and young, clustered at one time about one of our bird houses in which the last brood of the season remained. Some visitors would enter the house, others would perch on it, and as many as possible would cling around the entrance, peering within. The harassed parents, intent on feeding their offspring with necessary frequency, had to shoulder their way in and out of their home at every trip."



AN ECLIPSE

A MARI USQUE AD MARE

Roy Bishop

The whole thing originated when an officer at Canadian Forces Base Greenwood realized that a routine Argus training flight to Comox on Vancouver Island would be returning eastward within a day or so of the February 26 solar eclipse and that perhaps the flight schedule could be altered to take in the eclipse. (The Argus is a 4-engine, anti-submarine, long-range patrol plane, and a familiar sight to valley residents.) Courtesy of Major Gary Weese at Greenwood and Professor R. H. MacNeill at Acadia, I was asked if I was interested in flying along the path of totality. I pondered this proposal for several tenths of a second and decided that, yes indeed, I was interested!

In the early hours of February 23, Sherman Williams (a past-president of the BNS and a science teacher in Avonport) and I attended a pre-flight briefing, and together with 25 service personnel boarded Argus 711 in a hanger at Greenwood. Air Canada it wasn't. Instead of pastel colours, smiling stewardesses and music, there were racks of electronics, flight suits and sono-buoys. Within the hour we were propelled into the dark, pre-dawn sky by 15,000 horsepower of flaming, thundering, radial engines. As we emerged above the clouds, Venus and the waning crescent Moon made a pretty pair to the east behind us. The Moon was particularly symbolic in view of the nature of our trip.

During the next 12 hours we were treated to a spectacular view of Canada from the Atlantic to the Pacific. We flew low, at 8000 feet (the Argus is not pressurized), and went well north of the commercial routes. After the Bay of Fundy and New Brunswick, we crossed the broken ice of the St. Lawrence near the Saguenay River and headed north-westward across the Laurentians and the forests of central Quebec. James Bay was frozen solid while part of northern Ontario was lost in a blizzard. We passed from Flin Flon to Cold Lake and then south-westward across Alberta. Oxygen masks were donned as we climbed to clear the Rockies. Sherman and I spent this portion of the flight in the nose bubble and watched a panorama of snow covered peaks pass beneath our feet. After the cloud-shrouded Coast Mountains and the Strait of Georgia, we landed at Comox.

The return flight began at 0237 PST on Monday, February 26. As we left the winking lighthouses along the Pacific shore, Vancouver passed beneath us as a glowing, misty spider web of streets. Again came the oxygen masks while an aurora to the north was joined by the pinkish-blue glow of exhaust flames as we climbed to clear the peaks in the darkness below. Eventually Edmonton glided by our port side while an hour later over Saskatchewan came the dawn. Here the sky was generally overcast; however, at our midnight pre-flight briefing we had been told that northern Ontario was expected to be clear. This

was where we were headed. A pressurized plane could have taken us above the clouds, but the view would have been through a small plastic window. Although the lumbering Argus had to search for clear sky, it offered a 3 foot square, unobstructed open hatch from which to view the eclipse.

Further east over the northern end of Lake Winnipeg, the cloud gave way to a high haze as the Moon began to drift in front of the Sun. Gradually the haze thinned until about 20 minutes before totality when we flew out into a transparent, inky-blue sky. Before opening the observation hatch, Sherman and I along with two airmen put on parachute harnesses which were then securely anchored to the plane. The prospect of dangling beneath the Argus in the ghostly glow of the corona seemed rather exotic, but there was little time to dwell on such thoughts.

The cold slipstream whipped into the plane as the hatch was swung up against the roof. As shadows sharpened in the fading, brownish light, the captain kindly acceded to my request to alter course 20° to the north to place the Sun broadside to the plane. I watched the onset of totality through a diffraction grating attached to the front of a telephoto lens on a camera. During the last few seconds the continuous spectrum of the photosphere, crossed with Fraunhofer absorption crescents, collapsed while the absorption lines reversed to chromospheric emission lines. A large prominence near the south limb of the Sun, seemingly unaffected by the grating, dangled below the hydrogen alpha line. In the transparent air the silhouetted Moon was absolutely black, while the pure white glow of a rayed corona lit the frozen muskeg 7000 feet below. We were 54.9° N, 89.6° W, over the Severn River basin, some 100 miles from the shore of Hudson Bay. The seconds flew by in a blur of lenses and filters. Although our speed gave us an extra quarter minute of totality, a spectacular diamond ring came all too soon.

Pictures of the lonely land below, pinhole mirror images of the final partial phases, and some long overdue sleep occupied the next few hours as we flew southeastward into a severe mid-winter storm. There was considerable doubt as to whether we could land at any airport in the Maritimes; however, we pushed onward into the night sky. Eventually, after over 12 hours in the air our wheels lowered onto the icy, wind-swept runway at Greenwood. Here our luck ran out. While taxiing, the great plane slid and brought up in a snow bank! But no damage was done, and after a half hour struggle we were pulled out and into a hanger.

The experience plus the photographic record of the trip will be useful for many years to come to both Sherman and myself in our roles as science teachers. Particular thanks are due to the personnel of VP 404 Squadron at C.F.B. Greenwood for making it possible.

