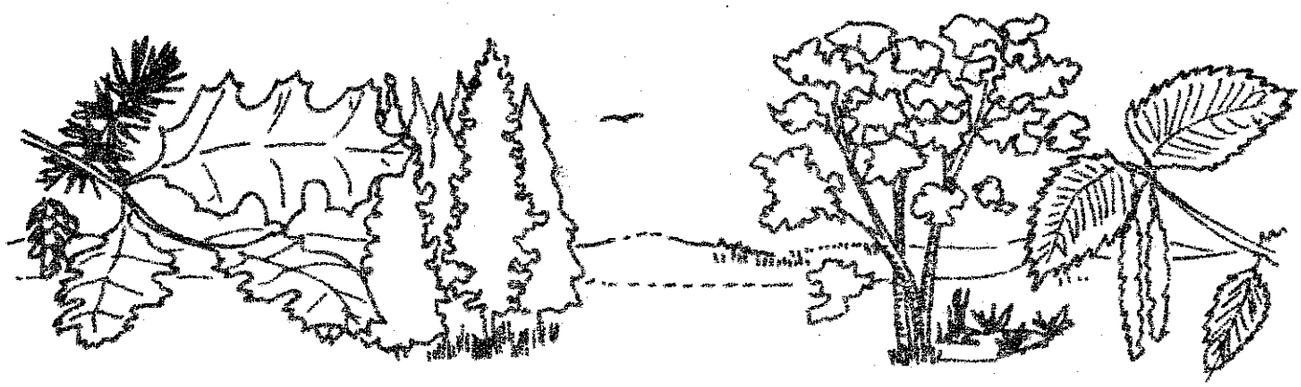


BLOMIDON NATURALISTS SOCIETY NEWSLETTER

Volume 4 No. 2. June, 1982

PROGRAMME SCHEDULE

Sunday August 7	8:00 am	An examination of the multitude of migrating shore birds. This is an early walk because we must catch high tide and an empty beach. Bring binoculars. Leader: Peter Hickling. Meet at the Acadia gym parking lot or Evangaline beach at 8:15 am.
Friday August 12	10:00 pm	The Perseid meteor shower will be at its peak this evening. We will also learn constellations, and look at sky objects through telescopes. At the Rotary park on the Wolfville Ridge at the top of Highland Avenue. Leader: Larry Bogan. 542-9433
Sunday August 21	9:00 am	A tour of the native shrubs of the area. Identification of wild berries and a chance to taste them. Meet at the Acadia gym parking lot.
Monday September 19	8:00 pm	EVENING MEETING: First of the Fall season. Speaker: Mr. Andy Dean. Topic: A Seasonal Approach to the Ecology of a Pond. Andy has a slide presentation of a study he did of the seasonal changes around Corbett Pond in the Univ. of N.B. wood lot. Room 241 Beveridge Arts Center, Acadia University.

Acknowledgements

Our thanks to Bob Lamberton and Dr. Alan R. Campbell for their presentations in our April and May evening meetings and to all those who led, or attempted to lead despite rain and other conflicts, our field trips. We are always grateful for the help on the Newsletter, and this time wish to single out Joy Cooper for pinch-hitting so cheerfully on the typing.

THE BLOMIDON NATURALISTS SOCIETY NEWSLETTER
is published quarterly by the Newsletter Committee of the Society.

Co-editors: Jean Timpa and Roy Bishop
Art/Production: Larry Bogan

"...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.

THE BLOMIDON NATURALISTS SOCIETY NEWSLETTER DEADLINE: Sept. 21, 1977.

Please send contributions as soon as possible to: Dr. Roy Bishop, Avonport, N.S. or to Mrs. John N. Timpa, Box 1382, Wolfville, N.S. We really need your help with this issue as our reserves are down to two articles! Now, with over 130 members, there must be a number of you who can contribute, especially after the summer months, full of trips and observations - in your own back yard even! Don't be shy!

The Blomidon Naturalists Society Constitution.

Most members of our society probably do not know that we do have a written set of rules. The complete Constitution is reproduced in the following section. The reason for this is to bring your attention to it for the purposes of possible change. In the past few years, the Society has had a few organization problems and there have been some references to changing the Constitution as a possible means of a solution. The constitution has never been printed in the Newsletter and was distributed to members only during the first year of our existence.

Read the Constitution and if there is anything that you feel should be changed please bring it up at a regular meeting of the Society or mention it to one of the executive officers.

Constitution

ARTICLE 1. NAME.
1.01. The name of this organization shall be the Blomidon Naturalists Society. The name "Blomidon" is chosen since it is anticipated that many of the activities of the Society will occur within sight of this unique landmark. The flora and fauna of Blomidon itself show great variety, while the minerals in its cliffs make it perhaps the most interesting locality in Canada for the geological naturalist. In addition, the pulse of a larger nature is visible and audible here as the highest tides on earth endlessly surge around its base.

ARTICLE 2. OBJECTIVES.
2.01. Whereas the happiness, well-being and the very existence of man are inseparably linked to the natural world, and whereas a knowledge of nature is a prerequisite to any and all means of preserving these aspects of life, the primary objective 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.

2.02. The Society shall function without the purpose of material gain for its members, any earnings of or other accretions to the society being used in promoting its objectives.

ARTICLE 3. MEMBERSHIP AND DUES.
3.01. Membership in the Society shall be available to any interested person upon payment of the prescribed annual dues.

3.02. The annual dues shall be determined and shall be payable at the first meeting of the Society after September 1.

3.03. The annual dues for members under the age of 16 shall not exceed one dollar.

3.04. Members who join the Society after February 1, shall pay one-half of the annual dues for that year.

ARTICLE 4. EXECUTIVE.
4.01. The officers of the Society shall be a president, a vice-president and a secretary-treasurer. They shall hold office for one year, but shall be eligible for election to more than one term.

4.02. The officers of the Society shall be elected by the members at the annual meeting. Candidates shall be nominated from the floor at this meeting.

4.03. In the event that an executive position become vacant, nominations and an election to fill that position shall be held at the next meeting of the Society. The members shall be notified at least one week prior to this meeting that an election will be held.

4.04. The President shall direct the affairs of the Society, preside at all the meetings of the Society, and act as spokesman for the Society. The President shall give a report to the members at the annual meeting.

4.05. The Vice-President shall perform the duties of the President and/or the Secretary Treasurer in the absence of either one, and shall be responsible for giving notice of meetings to the members.

4.06. The Secretary-Treasurer shall record the minutes of all meetings, and shall be responsible for all correspondence, assets and finances of the Society. The Secretary-Treasurer shall keep a record of the membership, and shall present an annual statement of receipts and expenditures at the annual meeting.

ARTICLE 5. COMMITTEES.
5.01. The Program Committee shall consist of the President and two members of the Society elected at the annual meeting. This Committee shall be responsible for the program of the Society for the coming year.

5.02. Special or Standing Committees may be created and appointed by the Officers of the Society for the promotion and proper conduct of the objectives of the Society. All members of the Society shall be eligible to membership upon all committees so created.

ARTICLE 6. MEETINGS.
6.01. The meetings of the Society shall be open to the public.

6.02. Meetings of the Society shall normally be held monthly, excepting July and August. Several of these meetings shall be field trips.

6.03. The annual meeting of the Society shall be the first meeting after March 1.

6.04. Special meetings, including field trips, may be called by the Program Committee at their discretion.

6.05. Seven members including one member of the executive shall form a quorum for a meeting of the Society; however, adequate notice must have been given to all members of the Society before any meeting shall be recognized as a meeting of the Society.

6.06. Meetings may be held at any place within Nova Scotia; however, the place of meeting shall be chosen with a view to encouraging as many members of as wide a background as possible to attend.

ARTICLE 7. AMENDMENTS.
7.01. Amendments to this Constitution may be proposed by any member and must be presented for consideration by the Society at

least two weeks before a vote is taken. Amendments to the Constitution shall require the support of two-thirds of the members who are present when the vote is taken.

ARTICLE 8. DISSOLUTION

8.01. In the event that the Society shall disband, all of its assets shall be transferred to some other non-profit organization having objectives similar to those of the Society.

March 26, 1974.

Letters to the Editors

1009, Ferrier Drive
New Minas, N.S.
B4N 4C4

May 5, 1977.

To the Editors:

I'm recently arrived in the area from Fredericton and not too sure of things, but some of these dates seem very early - maybe not so for this area. You can pick out what is of interest to you.

Sincerely,

ANDY DEAN

March 13	Canada Goose	75	Grand Pre
March 23	Song Sparrow	3	Grand Pre
March 23	Grackle	1	Grand Pre
March 27	Red Winged Blackbird	2	Avon River
March 30	Robin	14	New Minas Golf Course
April 10	Killdeer	1	Scotts Bay
April 10	Great Blue Heron	1	Gaspereaux
April 16	Cowbird	12	Greenwich
" "	Flicker	1	Greenwich
" "	Osprey	1	Black River
" "	Kingfisher	1	Black River
April 21	Tree Swallow	1	Acadia University
April 22	Snipe	2	New Minas
April 24	Savannah Sparrow	2	Grand Pre
April 24	Myrtle Warbler	1	New Minas
May 1	Kingbird	2	Grand Pre
May 3	Marsh Hawk	2	Grand Pre
May 4	Barn Swallow	1	Grand Pre

Lunenburg County (South Shore)

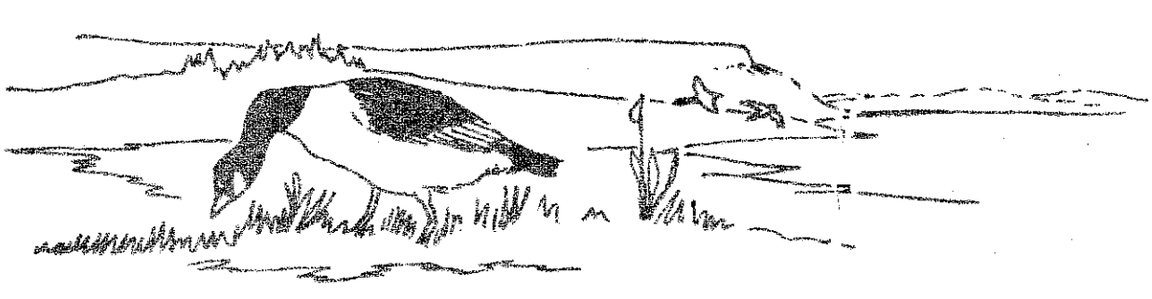
March 20	Robins	6	
April 2	Great Blue Heron	4	Rose Bay
April 2	Kingfisher	1	Conquerall Bank
April 2	Scaup	300 +/-	Conquerall Bank

Local Flora

March 29	Dandelion	Acadia University
April 16	Coltsfoot	Batters Harbour Road

Butterflies

April 19	Mourning Cloak	



In the last Newsletter we published a letter that the President of our Society sent to the Honourable Vincent MacLean concerning a bear-cub-capturing incident. The reply is published here.

Minister of Lands and Forests
Province of Nova Scotia
P.O. Box 698
Halifax, Nova Scotia. B3J 2T9

May 5, 1977.

Mr. Larry Bogan
President
Blomidon Naturalists Society
P.O. Box 753
Wolfville, Nova Scotia

Dear Mr. Bogan:

This will acknowledge your letter of March 23, 1977, expressing concern for the manner in which two black bear cubs were taken for the wildlife park in Shubenacadie.

The practice of taking immature animals for display at the wildlife park is done in the most humane manner possible, and occurs quite infrequently because stocks are usually replenished from captive parents.

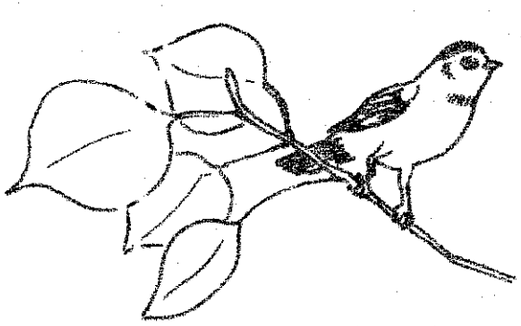
In the specific instance referred to in your letter, the black bear cubs were retrieved from an area which has a history of moderate to severe depredation problems. In fact, two calves were killed by black bear in October, 1976, in close proximity to the area where the sow bear and cubs were located. Although it is not possible to establish that the animal in question was the culprit, it is not unreasonable to suspect that, with additional bears in the area the chances of a recurrence of the problem were not entirely remote. Therefore, a decision was made to remove the cubs and use them for display purposes since the numbers were dwindling at the wildlife park. This practice also eliminated any possibility of their having to be destroyed at some later date as a result of their becoming a nuisance to some property owner who is dependent on his livelihood from the land.

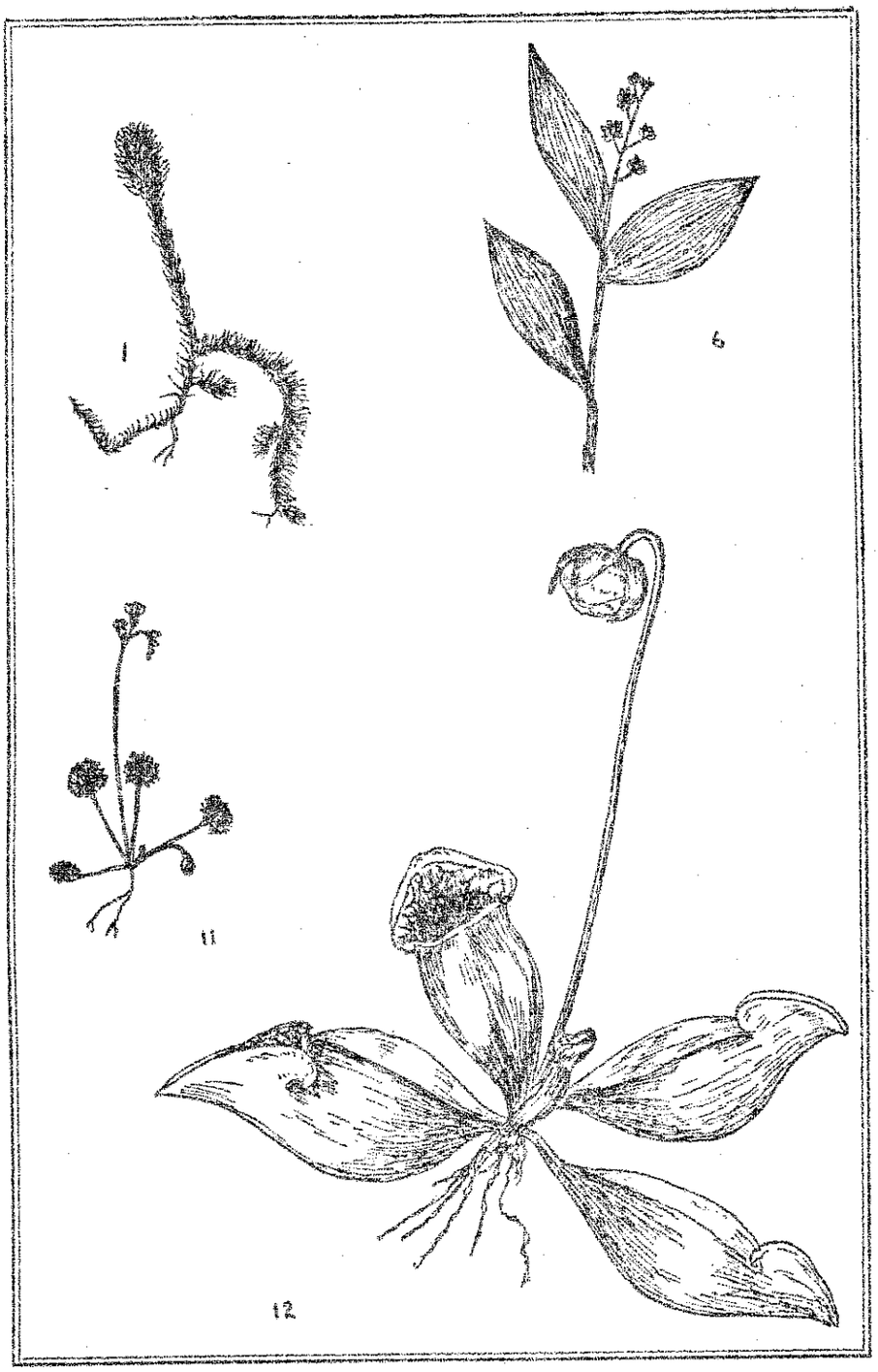
I realize the incident as reported caused considerable concern, and, without having access to the background information from which the decision for capture was based, it is quite understandable. However, I can assure that, in all likelihood, this method of capture will not be employed in the future unless there is ample justification to warrant removal of animals which are causing property damage.

Your interest in this matter is appreciated.

Yours sincerely,

VINCENT J. MACLEAN





BOGS AND THEIR PLANTS

John S. Erskine,
from: Nova Scotia Journal of Education, June, 1957.

Illustrations by W.B. Schofield

Bogs are a feature of the hard-rock areas of Nova Scotia, a legacy of the glaciers which stripped so much of our land of its soil and left it scoured and ill-drained. In shallow lakes and barren hollows, the low bogs form - floating mats of sedge creeping out over the water, growing up and pressing down the older layers into drowned decomposition, so that sludge rains down to the bottom which rises to meet the mat. Masses of peat-moss overwhelm the sedge; black spruce creeps out from the shore and shades the peat-moss; and gradually the lake becomes woodland.

But the great bogs of Nova Scotia are high bogs. These form on any land where plant-food is scarce and water abundant, if only in the form of rain. One may find them at fifteen hundred feet above the sea in Cape Breton, open sweeps of sphagnum mosses, red and yellow and brown, edged by a barrier of black spruce whose thin stems, an inch thick and a hundred years old, have been broken down

by drifting snow and have rooted every branch that touched the ground and are growing still. There the pine-grosbeaks come tamely to whisper their thin song, and the white-headed eagle tilts low above on his way from shore to shore.

There are high bogs little above sea-level on the Yarmouth coast and on Brier Island, the westernmost point in Nova Scotia, wastes of pale moss with hummocks of harsh sedge and white-tufted cotton grass, jewelled here and there with the pink and mauve of the bog-orchids, and with peaty pools in which float the golden flowers of bladderworts. Yet in all Nova Scotia the greatest is the Caribou Bog which covers the highest two square miles of the Annapolis Valley, where the waters divide to flow eastward to Minas or westward to Annapolis. The oldest inhabitant of Berwick used to tell about having once seen fifty caribou filing together across that empty waste which seems to arch gently under one's gaze as though one could mark the curvature of the earth instead of the great swelling bubble of the bog.

Sphagnum, usually called "peat-moss", is the beginning and the end of all high bogs in Nova Scotia. On bare rock, trees can find no food, but mosses ask little or nothing beyond air and water and light, and so flourish there. Ordinary pin-cushion mosses gather blown dust, mix it with crumbled fragments of themselves and build a patch of soil in which more complex plants can root and overshadow the mosses that made the rock habitable. But the sphagnums work differently. Their leaves, like those of most mosses, are only one cell thick, but the food-building green cells are reduced to less than one-quarter of the area, and the other cells have been changed to storage-tanks for water. Some species can soak up nearly forty times their dry weight, for which reason they have been used for hospital dressings.

Rain falls upon the bog, but until the moss-reservoirs are filled, none flows away. The bog swells like a huge sponge, and the water-level remains at the surface for much of the year, so that rivals to the sphagnum can find no air. The sphagnum itself offers food to none, lives to itself alone and builds, beaver-like, an expanding area of permanent water in which nothing else can find food. It grows upward and crushes its older parts down into cold dark water, and there bacteria, which can live without air, break down the dead fragments and produce an acid waste in which not even bacteria can live. So the depth of the bog becomes a pickling vat in which change almost ceases. We do not know the age of our bogs, but in Ireland I have seen beneath the peat the stumps of oak-trees which were burned in the days when St. Patrick, as a captive slave, was tending herd in the forest of Fochlad.

In western Europe there has been much study of the pollen-grains preserved in peat. There it is possible to distinguish the succession of trees as they advanced after the last ice-age -- birch, pine, oak and beech -- the alternation of floras due to dry periods and wet, warm and cool, and finally the increasing abundance of weed-pollens that herald the coming of agricultural man. As a result, it is possible to date a deposit by pollen-analysis to within a century. In Nova Scotia this work has been begun, but it has not yet been successful -- in part, perhaps, because tree-pollens may be windborne to us from many hundreds of miles to the west.

A few plants have found ways of living in the bogs in spite of the blockade of food supplies that the sphagnum imposes. On raised hummocks grow little rosettes of red pads which lift croziers of small white flowers (11).* These are the sundews which, despairing of finding nitrogen and rare elements among the mosses, have taken to trapping them from the air in the form of flies. Their round red leaves are covered with hairs shiny with sticky juice, and a fly that alights unwarily upon one of these leaves is caught, and the leaf folds gently about him. A day later the leaf unfolds and the skeleton of the fly lies exposed, the rest of him having been digested away.

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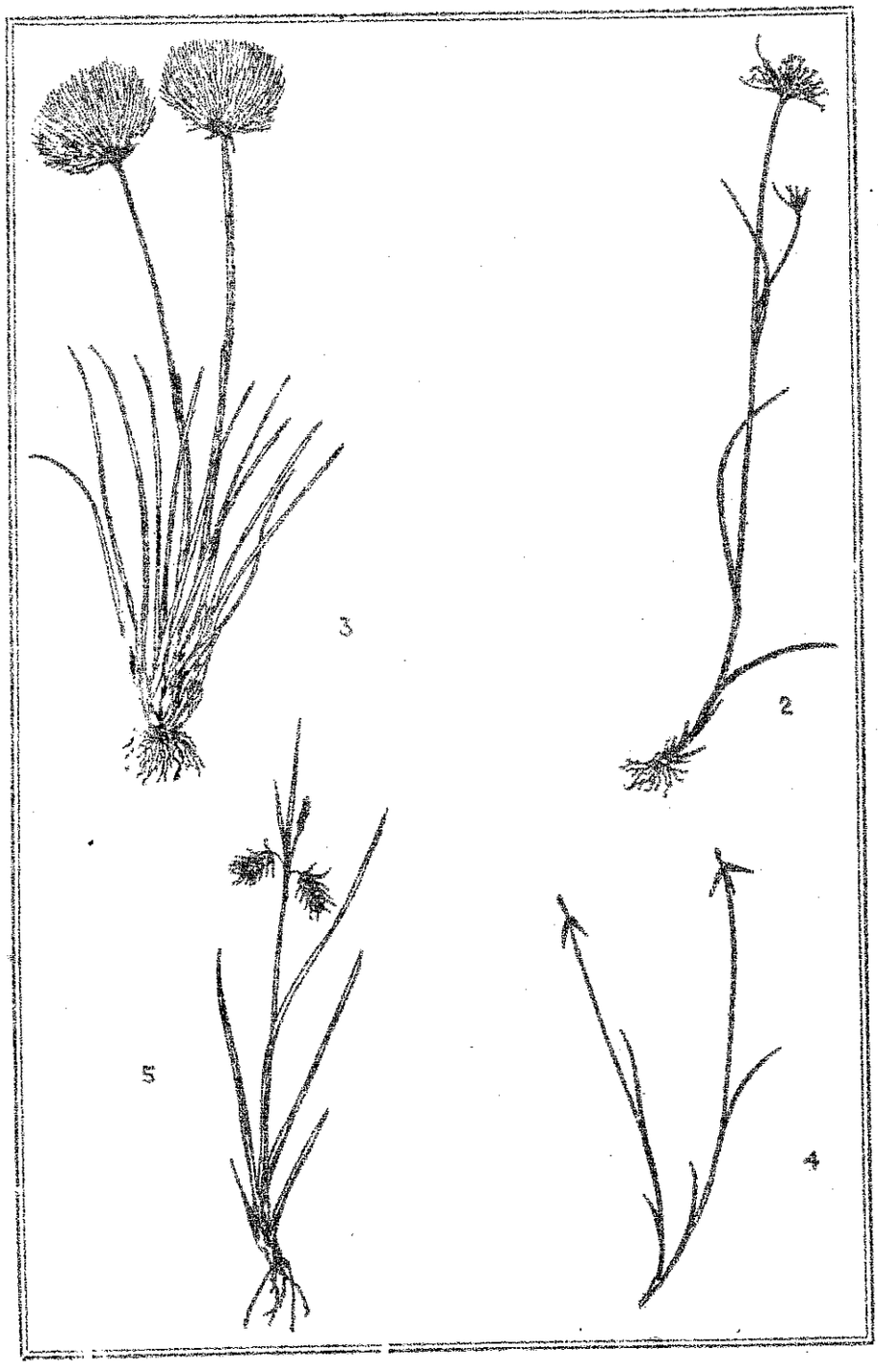
* The numbers in parentheses refer to the illustrations, and the list at the end of the article.

Once I kept a pet sundew, Salome by name, in a soap-dish by my window and fed her upon frequent flies. Salome flourished and grew, but soon a strange transformation came over her which I have never seen in the wild plant. Her leaves became green and hairless and paid no more attention to flies laid upon them. Perhaps she had become respectable as a result of abundant food and felt no need for flies; perhaps she had developed indigestion from too rich a diet. Probably a fly or two in a lifetime is all that a sundew can hope for or need.

Other insect-eaters inhabit the bog. There is another sundew with narrower leaves and larger flowers which lives in peaty holes and channels. The pitcher-plant (12) nods its tall mahogany-and-pink flower above some eight funnel-shaped leaves which collect water. Insects venturing into the leaves find themselves struggling against stiff hairs which urge them downward into the water where they are slowly digested. In the bog-pools float the bladderworts with spikes of butter-yellow flowers like small snapdragons and with leaves like long bottle-brushes set with tiny box-traps to catch small water animals.

Most of the other plants of the bog -- orchids, heaths and sedges -- have domesticated certain fungi which they keep in or about their roots. These fungi seem able to digest waste matter



in the absence of air, and in some unknown way their hosts share in the profits. Some forest-living species, such as the coral-root orchids and Indian-pipe heaths, have given up leaves and have become wholly dependent upon their fungi, but the bog-inhabiting species always have leaves.

Orchids are very complex and yet very ancient plants, an aristocracy decayed. Very long ago, before the first birds flew and while insects were the triumphant masters of the air, the orchids specialized in attracting insects for more certain pollination. But insects do not distribute seeds, so the orchids retained the primitve habit of scattering abroad thousands of tiny ill-provided seeds which must capture fungi to assist them. Birds and mammals have come, so that now conditions have changed. Today the successful plants leave pollination to chance but try to establish their children with food to furnish them for their first days; yet the orchids go on, beautiful in their inefficiency, carrying forward proudly an obsolescent pattern of life.

The orchids, collectively known as "swamp-pinks", make up one of the greatest beauties of the bog. There is Pogonia, delicately pink; Calopogon, flat-faced and coloured from pale brick to violet; Arethusa, hatchet-faced and of a deep rose colour -- all of them common, although not always in the same bogs. Then, too, there are the spikes of the paper-white orchid (7), the single golden snapdragons of the leafless bladderwort (16), the tall lambkill flowering deep pink throughout the summer, the small lambkill (14), shell-pink in spring, and the blueberries dripping clusters of white bells.

Because they form an unchanging habitat, the bogs are refuges for many plants which otherwise are rare. It was the discovery of golden-crest in a bog at Tiddville on Digby Neck that led to the revival of interest in the botany of Nova Scotia, for the nearest colony of this tall yellow-flowered grey-leaved plant was in New Jersey. The tiny curly-grass fern edges bog-channels from Yarmouth County to the Cape Breton Highlands. Arctic dwarf birches survive in the bogs of Guysborough, Brier Island, Cape Breton and St. Paul Island. On Brier Island the bog harbours a yellow geum known otherwise only from the mountains of New Hampshire.

The surface of the bog is soft but not treacherous, hummocky with the differing rates of growth of different sphagnums and from the competition with the few plants that strive with them for the sun. Here and there a hackmatack or a black spruce reaches a few feet high, but its shadow checks the growth of the sphagnum, so that soon the tree stands in a bowl of water, walled in by the moss rising around it, and its roots drown in perpetual water.

On a warm day, if you thrust your hand into the wet sphagnum, you find it tepid for a few inches down and then icy cold below, for there is little drainage or convection in a bog. In rainy summers water collects in patches on the surface, and tiny green algae grow in the warm water and coat the mosses with a throttling film which they cannot withstand. So the spot remains bare, a dead area enclosed by growing banks, and water-lilies come and establish themselves in the pool, bladderworts float in tangled masses and even water-sphagnums root on the peaty bottom. Overflow-channels cut shallow ways through the bog and then become clogged with the grey candelabra of lichens and with mats of other sphagnums, purple or woolly white.

In the old days the bogs were a valuable source of fuel, and men drained them, cut and weathered and dried the peat and burned it as a substitute for coal and wood. But in Nova Scotia the value of human labour has risen faster than the price of fuel, and the peat working has been abandoned. On Caribou Bog a company has been stripping the upper layers for the commercial peat-moss which is valued as litter for stables and as humus for garden soils. But this is a luxury utilization with limited outlets. In Ireland factories have recently been established beside peat bogs to utilize the stores of fuel, the greatest expense in whose use is liable to be transportation; so if ever we revert to a phase of small-scale manufacture, our bogs may turn out to be assets after all.

Through thousands of years the sphagnum has continued to reign scarcely challenged. One walks across the Caribou Bog as through a desert under the wide sky. No mosquitos hum, there are few flies, and only an occasional butterfly drifts by upon the breeze, a lost soul carried he knows not whither, willy-nilly blowing. A pair of black ducks rises from a pool; a crow calls in the distance; and at evening from the slow brook that borders the bog a bittern skings his curious song like the working of an old wooden pump with loose joints. But the bog itself is empty of birds, for there are few insects and few plants with abundant seed. So the bog has been through ages, and so it may remain for ages more.

FLOWERS OF THE BOGS

1. Lycopodium inundatum L. (Bog-clubmoss) This small clubmoss creeps about bare sludgy patches in bog, its older parts dying away and leaving the younger tips to spread alone.

2. Rhynchospora alba L. (White beak-rush) In wet bogs the white flower-heads of this rush are conspicuous and unmistakable. More rarely one meets patches of its chestnut-headed cousin, Rhynchospora fusca (L.) Ait.

3. Eriophorum spissum Fern. (Hare's-tail) Many of these cotton-grasses are found in bogs. This one grows in stiff-leaved clumps and has single erect white heads. Another with clustered chestnut heads, E. virginicum L., Tawny Cotton-grass, is very common, and there are four other species with drooping white heads.

4. Carex pauciflora Lightf. (Few-flowered Sedge) Dozens of species of sedges may be found in bogs, but we chose this and No. 5 as being pleasing and easy to identify. This small sedge with its harpoons of yellow fruit is common.

5. Carex paupercula Mx. (Nodding Sedge) Most bogs have this pretty sedge with drooping heads of chestnut-tinted long-tipped scales. There is one related species, mud-sedge, with smoother drab-coloured heads.

6. Smilacina trifolia (L.)Desf. (Bog-lily) This plant, which may easily be confused with the false lily-of-the-valley of woods, grows in wet bog-channels.

7. Habenaria blepharioglottis (Willd.) Hook. (Paper-white Orchid) Of the many fringed orchids with clustered flowers this is the only one which is snowily white. It is found in bogs and nowhere else, whereas the others of the group usually grow in wet ground that is not boggy.

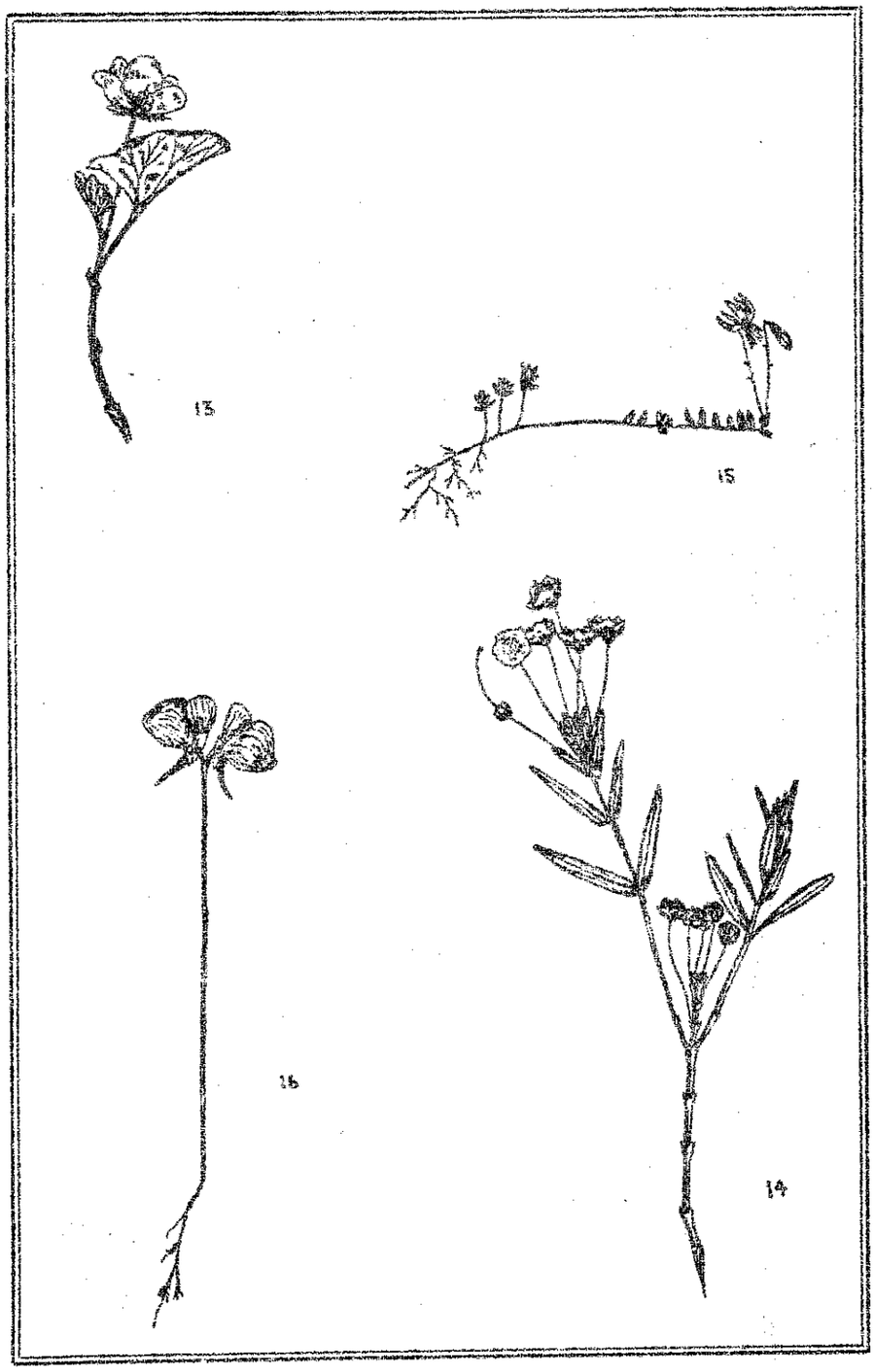
8. Pogonia ophioglossoides (L) Ker (Swamp-pink) This lovely orchid, large-flowered for this area, blooms chiefly in June and is rose-pink fading to nearly white. The single flower and lanceolate leaf distinguish it from its cousins.

9. Calopogon pulchellus (Salisb.) R.Br. (Grass-pink) No. 8 has single flowers; this species has from two to many flat-faced blooms which vary in colour from lavender to pale magenta with frequent variants in white and pale pink. It flowers chiefly in July.

10. Arethusa bulbosa L. (Bog- pink) In contrast to the last two orchids, this one has its flowers flattened laterally. The blooms are single and deep pink and are at their best in late June. They are less usual than the last-mentioned orchids, but are common where they are found.

11. Drosera rotundifolia L. (Round-leaved Sundew) Very common on bog-hummocks and on wet soil.

12. Sarracenia purpurea L. (Pitcher-plant) One of the chief delights of bogs. On the North Mountain and in Cape Breton there is a form with yellowish instead of mahogany-and-pink flowers.



13. Rubus Chamaemorus L. (Bake-apple) Two leaves and one fruit like a raspberry with only a few much-inflated yellow drupelets make up the bake-apple above ground. The fruit is a favourite in Newfoundland but sets rarely in the south of Nova Scotia.

14. Kalmia polifolia Wang. (Bog-lambkill) This is a much smaller shrub than the common lambkill and has shell-pink flowers.

15. Vaccinium Oxycoccos L. (Spice-cranberry) This is the smaller of the two cranberries, less conspicuous but scarcely less common than the better-known large cranberry.

16. Urticularia cornuta Mx. (Leafless Bladderwort) Patches of these golden flowers edge bog-pools and make brilliant splashes of colour.

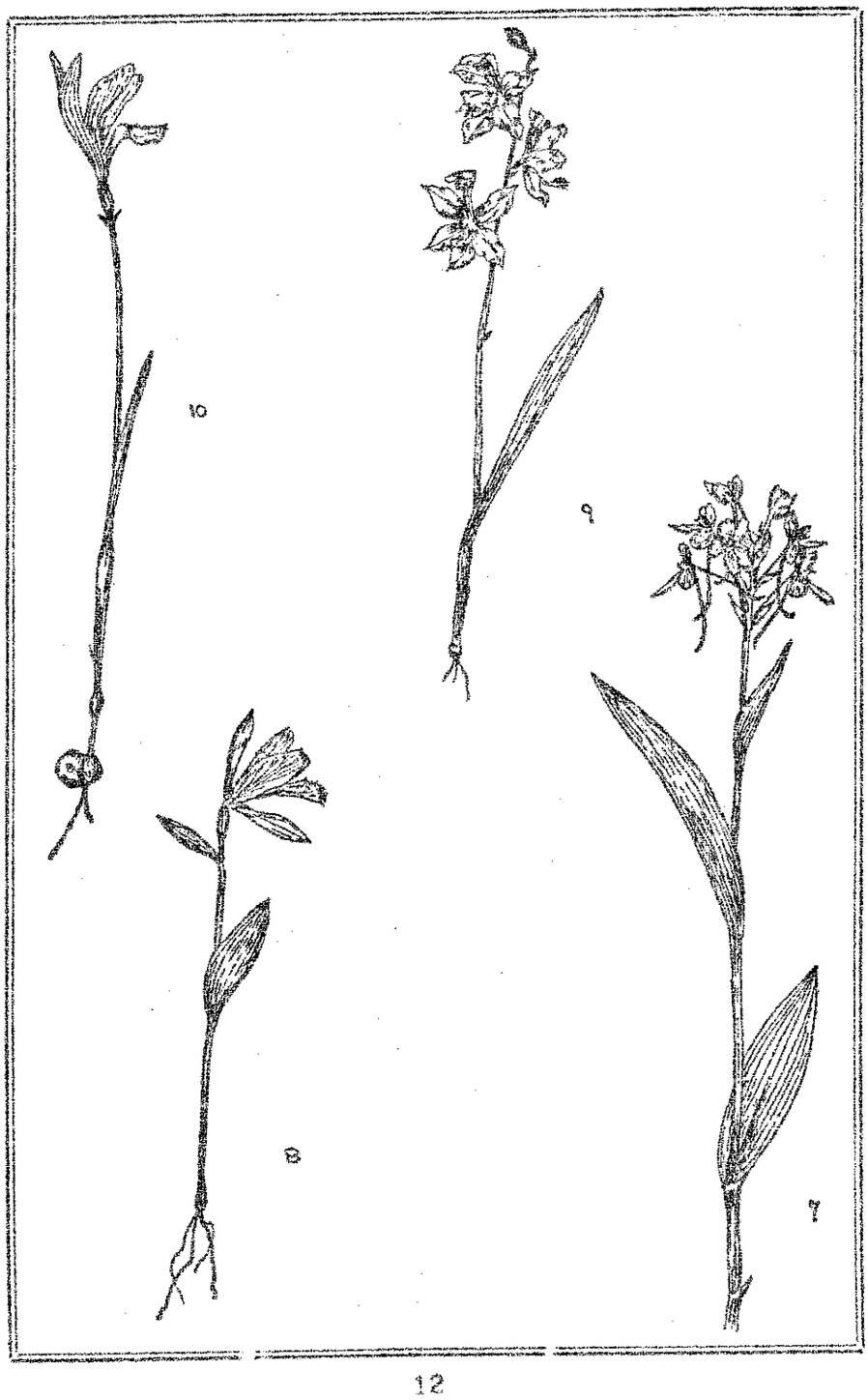
JOHN STUART ERSKINE

Born in Chicago, November 8, 1900, where his father was British Vice-Consul, and where John was entered in the Consulate as a British subject. His father was appointed Consul at St. Louis when he was eight years old and the family moved there, and later

to Portland, Oregon. Finally they moved to New Orleans, where Mr. Erskine died in 1916. John came to England, for the first time in his life, with his mother and worked as a farm hand during the war. He also nearly died of pneumonia during the flu epidemic of 1918 and was told that his health was permanently affected.

As there were no jobs in England with demobilization of troops after the armstice, John was shipped off to Jamaica and, after some months, found work on a cattle "pen" near the west end of the island. He worked there and at another farm, with cattle and sugar cane, for some years and then moved to Central America, where he was employed by the United Fruit Company in Honduras as Overseer on banana farms for several years. At the end of this period he made a 600 mile trip, almost all on foot or by canoe, through the interior and down the Patuca River to the Bay Islands on the coast, studying native tribes and their languages. From this trip he returned to England and started to write in earnest, selling short stories to U.S. magazines.

During this time he married and, with the collapse of writing chances with the financial crisis of 1929, he took a job on citrus and banana farms in Brazil, first near Rio and then Santos. This work was only of short duration as John was seriously ill with malaria and hepatitis and from hospital in Sao Paulo he was sent home to England to convalesce.



His first son was born shortly after and he decided not to return to the tropics. We acquired a house in the Furness district of Lancashire and John resumed writing. Two more sons were born here, and John would go for some weeks each year to bicycle through various countries in Europe. Here he saw the menace of the situation in Germany and was anxious to remove his family to a country where they might grow up and be oriented to conditions, so that, after the war, (which he was sure was inevitable) they would be fitted to live and work instead of being forced to emigrate as he had done.

Late in 1936 the family moved to Nova Scotia and settled in Wolfville, which has been their home ever since. Since John's education had been interrupted by the many moves during his childhood and his starting to work at the age of 14, he had never taken a university degree. He was enabled to take his B.A. in Romance Languages at Acadia and went on to McGill to do his M.A. in French, teaching in a private school in Montreal while he did so. On his return to Nova Scotia he taught at King's College School for a number of years, and then in public schools in Kings County.

He also, during his holidays, collected plants for the herbarium of the Nova Scotia Museum throughout the province and later did archaeological work on the Indians of Nova Scotia for the Nova Scotia Museum and for the Museum of Man in Ottawa; and also made a study of the Acadian culture and remains in the province. In addition, he was writing extensively and had a novel published, a number of articles and stories and numerous papers on botanical and archaeological subjects. He also did some book reviews.

Birds were one of his lifelong interests and for many years he took part in the Breeding Bird Survey, made jointly by the Canadian Wildlife Service and the U.S. Fish and Wildlife Service. He took regular 5 or 6 mile walks throughout each winter for over twenty years, recording birds seen on his set routes.

Much of his writing still remains unpublished.

Rachel Erskine.

Ram's-head Lady's Slipper, Cypripedium arietinum R.Br.

Dr. A.E. Brower, recently billed as Maine's foremost naturalist, (one of North America's is more accurate!) has kindly sent me a monograph he wrote on this rare orchid. On checking The Flora of Nova Scotia (Roland and Smith), I realized our own John Erskine was the first to discover the Ram's-head Lady's Slipper in Nova Scotia. His wife, Rachel, quickly provided copies of the monograph John wrote and I have attempted to combine the two articles, as well as adding a note or two of more recent interest which Rachel conveyed to me. I have omitted, as indicated, some of Dr. Brower's monograph as it was quite specific to Maine and technical, but I would gladly supply the information should any individual reader be interested. Jean Timpa.

Cypripedium Arietinum R.Br. in Nova Scotia. About one-quarter of a mile south of the southern end of the Wentworth gypsum quarries in Hants County, several clumps of Cypripedium arietinum R.Br. were found growing in broken country of gypsum sinkholes and thin poplar scrub. The plants were in full flower on the 24th of May, while the neighbouring Cypripedium calceolus L. var. parviflorum (Salisb.) Fern. were still in small bud. It is probable that the extension of the quarries will destroy this area within a few years.

The present find would be merely another range extension of minor interest but for the fact that this is the fourth species to be found in these few acres of undisturbed gypsum and known from no other part of Nova Scotia. The others are: Viola canadensis L. (Roland: Flora of Nova Scotia); Circa pal[illegible]tris L.,(Erskine, J.S.;

RHODORA 55:18); Aloina rigida (Hedw.) Kindb., a moss collected by W.B. Schofield and the author. Its identity was confirmed by Dr. A.L. Andrews. The northern limit of all four species is roughly the same, from the north of Lake Superior eastwards to Massachusetts, with the exception of an unrecorded collection of Aloina from the Hudson Bay region. This distribution suggests that these four species survived just south of the Wisconsin ice-sheet and pushed north in a warm and favorable spell while the destroyed land was still unforested. Our cliff-floras, however, contain many northern plants which could hardly have come in from the south at this time. The assumption that an incomplete glaciation of Nova Scotia and neighbouring areas existed during the late Wisconsin period would fit all the facts thus far available. -- J.S. Erskine, Wolfville, Nova Scotia.

RAM'S HEAD
LADY'S SLIPPER

Rachel Erskine's Addendum. Several years ago Rachel gave directions to some botanists who went looking for the Ram's-head Lady's Slipper. They found none of the desired plants and reported the area very overgrown with grass and shrubbery. The site was undisturbed by the quarrying, but the sheep which had grazed there when John discovered the plants were long gone. They had apparently kept the plant competition down very effectively. A more thorough search is needed. Perhaps this would make a good field project for some of our botanically-oriented BNS members?

One more note of interest: Dr. Brower is now writing a monograph on the Prairie White Fringed Orchid, Habenaria leucophaea, and is interested in obtaining any information on "stations" in Nova Scotia. I have conveyed the details appearing in The Flora of Nova Scotia, revised (Roland & Smith), but do any readers have any more recent news? If so, please send it to: Dr. A.E. Brower, 8, Hospital Street, Augusta, Maine, U.S.A. 04330

Historical and General Information on Ram's-Head Lady's Slipper

The plant family Orchidaceae contains many notable species. Outstanding among these is the ram's-head lady's-slipper, Cypripedium arietinum. There are twenty species of Cypripedium in the north temperate zone. Cyprripediums differ from other orchids in this area by having but one stamen. C. arietinum is much the rarest and smallest of these four species. With it, growing much more commonly, is the yellow lady's-slipper, C. calceolus, which has both upland and bog forms. Still more common and widely adapted to upland conditions is the moccasin flower or stemless lady's-slipper, C. acaule, which is generally familiar to flower lovers. The fourth species is the showy lady's-slipper, C. reginae, which is usually a sphagnum bog species, but sometimes grows in mucky or alluvial soils, especially over moss. This is much the largest species.

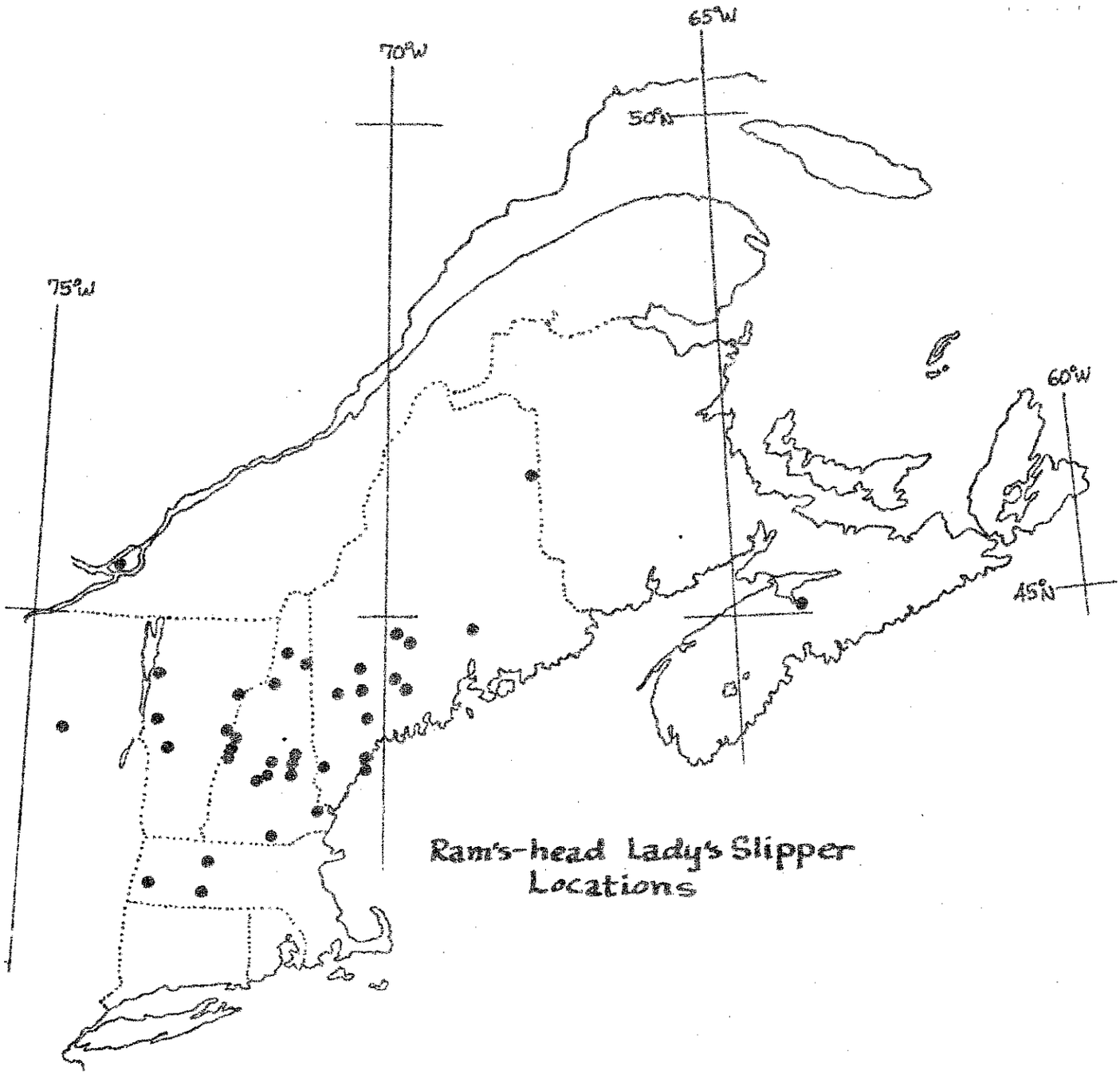
The ram's-head lady's-slipper, Cypripedium arietinum, is evidently one of the oldest inhabitants of this planet. It apparently has a lineage going back hundreds of millions of years, to the time that the great land mass Pangaea dominated the earth.

When Pangaea broke into sections, part of this species remained in what is now China. There it is a rare plant growing at an elevation of nearly 6600 feet (2000 meters) in the mountains of western China, where it grows in a dry oak-forested region. The part of the species remaining on what came to be called America now exists as a relict species, in a limited range, usually very rare and local. It has been recorded extremely rare in three or four spots in southwestern Quebec; several localities in Ontario; in Manitoba; a number of spots about the Great Lakes; in Massachusetts and New York. It has been recorded or reported in Maine only from Mars Hill (an outlying monadnock), Bucksport and Orland east of the Penobscot River; west of this from Old Town, Norridgewock, and Waterford southwestward; about 15 localities in all of Maine. In a large part of these it has not been found in recent years. In Maine it is usually found growing in sandy to gravelly clay soil from glacial till, at relatively low elevations in mixed forest areas. In what may be the greatest concentration of the plant in eastern America, in Kennebec County one can in one step go from the sphagnous bog habitat of the showy lady's-slipper to a few plants of the ram's-head on a slight elevation of glacial soil; but most plants are growing a few feet above the bog, about 270 feet elevation, in a stand of arbor vitae. The smaller branches of arbor vitae commonly stand on edge and permit considerable sunlight to reach the ground. Like many other orchids it may depend on a symbiotic relationship of its roots with certain fungi. It is apparently extremely difficult to maintain in cultivation.

The ram's-head lady's-slipper, C. arietinum is apparently a very old development in the Cypripediums and has even been suggested for a distinct genus. It is found only very locally in mixed woods or open stands of arbor vitae, growing in moist, sandy or loose soil sites in well drained situations in partial shade. Its requirements are not well understood. Quite likely there is some association with fungi by the roots. Generally it does not thrive under cultivation in the wild flower garden. It is generally in mixed woods or largely hardwoods, sometimes under nearly pure arbor vitae, with different native plants in different locations. Star flower, Trientalis; Twin-flower, Linnaea; bellwort, Uvularia; shin-leaf, Pyrola; bunch-berry, Cornus; ferns, and in better drained larch bogs with pitcher plant, Sarracenia and various shrubby heaths. Arbor vitae because of its vertically oriented twigs, and larch permit much more light to reach the ground than most trees.

Distribution in North America. The ram's-head lady's-slipper occurs very locally in small spots over a considerable range. It was formerly found at a few very small spots near Montreal, Quebec; at a number of spots in Ontario, and very locally about the Great Lakes west to Manitoba; at places in northern New York; in Massachusetts at Mt. Toby, Wilbraham and Great Barrington; in Vermont at Willoughby, Barnet, region of Lake Champlain, Chittenden Co., Otter Creek, Fairlee, Addison Co., and Rutland; in New Hampshire in Shelburne, Mt. Cabot, Kilkenny, Wolfboro Center, Wolfboro, South Wolfboro, New Durham, Meredith, Weirs (near Laconia), Franklin, Lyme, Lebanon, Hanover, and Hollis. In New Hampshire it has been recorded from thirteen towns, seven of them with specimens in the University Herbarium. The highest elevation probably near 300 meters on Mt. Cabot, Kilkenny, southwest Coös County. This and Shelburne are the northernmost locations. The others are definitely south of the White Mountains, but none are near the coast. It must be remembered that it has disappeared from many of these localities, just as it has from most of the localities where it was known in Maine. Habitat disturbance by man seems to be fatal in most places.

Stations in Maine. In Maine it has been recorded from the following, perhaps more, localities: Aroostook Co., Mars Hill, an isolated monadnock; Penobscot Co., Norridgewock, reported in Madison; Kennebec Co., Gardiner, Manchester and Wayne; Oxford Co., Hartford, Waterford, Greenwood; Cumberland Co., New Gloucester, South Portland (on Westbrook St.,), Cape Elizabeth; York Co., Acton and perhaps other localities. All below 300 meters.



Natural History of the Ram's-head Lady's-slipper Reproduction. The ram's-head lady's-slipper appears to reproduce largely by offshoots of parent plants. The minute seeds are produced in large numbers and probably produce part of the plants. Nothing definite has been found regarding reproduction. Growing in rather dense habitats, the seeds probably fall close to the parents. The species grows on fairly open ground, which is lightly covered with forest duff. Each slender stem is one to four dm. tall, with three or more lanceolate to elliptic, sessile, nearly smooth, bluish-green leaves. A single flower tops the stalk. The lower lip is whitish, strongly veined with red, and is produced far downward to a blunt point; viewed from the side this resembles a ram's head. As soon as fertilization takes place the upper floral part closes the entrance to the pouch and the flower wilts and dries much more quickly than other lady's-slippers. The seed-pod may persist into the next season. The stalks begin to push up soon after the snow is gone, and in Maine, part of the flowers open in May. This is before the forest canopy is complete

WINDFALL FOR BNS

Recently, the Blomidon Naturalists Society was greatly honoured by a gift comprising copies of the "Outdoor Chat" columns by Dr. Harrison F. Lewis, which he wrote and which appeared monthly in The Shelburne Coastguard newspaper from 1953 until 1970. To say that we have struck a goldmine is indeed an understatement! I can never thank his widow, Elizabeth Lewis, enough for so cheerfully parting with these copies; and for her declaration that they are ours to do with as we please.

The first column I have chosen to reproduce is #6, April 1953. Although quite specific as to time and place, the column does so ably describe the many aspects of summer in Shelburne and Yarmouth Counties that I chose to leave it intact.

Mrs. Lewis also provided a short biographical sketch of Dr. Lewis, with which it is only appropriate to begin the reproduction of his "Outdoor Chat" column.

Jean Timpa.

Dr. Harrison F. Lewis was born at Sag Harbor, Long Island, New York, in 1893. In 1911 he came to Canada to live.

He received a Bachelor of Arts degree from Acadia University in 1917; Master of Arts from the University of Toronto in 1926 and a Ph. D. from Cornell University, majoring in Ornithology, in 1929.

In 1920 he entered the service of the federal government, as Chief Federal Migratory Bird Officer for Ontario and Quebec. This eventually led to his becoming the first Chief of the Canadian Wildlife Service. He retired from this position in 1952, to reside in a rural area of Shelburne County, Nova Scotia and to lead a life of very active retirement.

He wrote many articles for scientific and wildlife periodicals, and a series of more than 200 "Outdoor Chat" columns for the "Shelburne Coast Guard". In the years 1959-61 he conducted, under the auspices of the Nova Scotia Department of Lands and Forests, an investigation of the economic status and management of Nova Scotia wildcats, red foxes and raccoons.

Dr. Lewis was a charter member and president of both the Nova Scotia Bird Society and the Nova Scotia Resources Council. He was a member of the Associate Committee on Bird Hazards to Aircraft of the National Research Council, and examined for them, after the age of 70, more than 40 airports in eastern Canada.

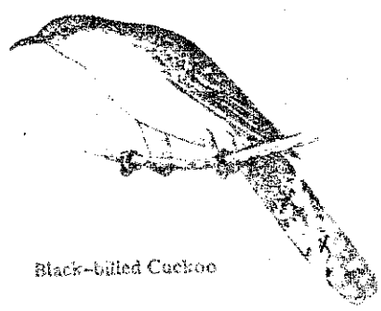
At the request of the Canadian Wildlife Service, he wrote a history of that body, which was completed a short time before his death, and which is still unpublished.

His death occurred at Sable River, Nova Scotia, in January, 1974.

Elizabeth Lewis.

OUTDOOR CHAT #6
by
Dr. Harrison F. Lewis July 1953.

At Ingomar Mrs. Avard Hamilton describes a bird that is cinnamon brown above and white below, larger and proportionately slimmer than a robin, with a wide wing-spread. She also reports strange bird calls as Cu, Cu, Cook, repeated several times. Evidently she has seen and heard a black-billed cuckoo, an unobtrusive bird that is probably more common than is generally realized.



Black-billed Cuckoo

Cuckoos, the world over, take their name from the cry of the European species and their popular reputation from that bird's habit of laying eggs in nests of other birds, which raise its young. Our black-billed cuckoo has a different call and makes a practice of building its nest and raising its young in normal fashion.

In Shelburne County these cuckoos are reported this year from a number of places. Probably they have been attracted here by the abundance of tent caterpillars. Many insect-eating birds will not take these hairy pests, but cuckoos eat them readily and seem to prefer them, as they occur in greatest plenty where there is an outbreak of these insects, more than 100 of which have been found in one cuckoo's stomach. The cuckoo has a peculiar physical adaptation that enables it to eat these spiny creatures without harm. In its stomach the movements of digestion break the spines from the caterpillars. Many, if not all, of the spines pierce with one end the lining of the bird's stomach and remain fixed there, accumulating in such abundance that the stomach of a cuckoo that has been feeding long on hairy caterpillars seems lined with fur. This does not appear to cause the bird discomfort, but eventually the stomach lining is sloughed off, spines and all, and the cuckoo continues with a new stomach lining that has been developing under the old one.

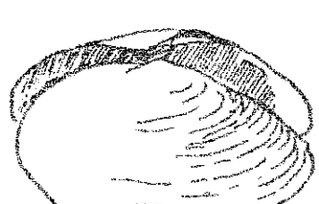
In addition to caterpillars, cuckoos eat potato bugs, beetles, crickets, grasshoppers and various other insects, with an occasional bit of wild fruit for variety. They are among the most valuable of our insect-eating birds and are rightly protected by both provincial and federal law.

The various pink orchids that adorned our roadsides around the first of July have faded and are now replaced by four kinds of white or greenish-flowered orchids, of which the slender, spiral ladies'-tresses is apparently the rarest and the white fringed-orchid the most abundant. The beautiful purple fringed-orchid, which grows near Yarmouth, should occur in Shelburne County also, but we have yet to find it here. It stands one to three feet in height and carries at the top of its leafy stalk a cylindrical cluster of numerous mauve-purple flowers. It commonly grows in meadows and swales, often in dense masses. If any reader knows of a stand of this orchid in this county, we shall appreciate a report of it, with a flower or two picked from one of the clusters.

Recent rains have greatly improved the prospects for a good crop of the many kinds of wild berries with which this county is blessed. The highbrier blackberries, or black brierberries, appear to be unusually abundant this year.

At this season most of us visit one or more of Shelburne County's beautiful ocean beaches and see relics of sea creatures that are cast up there. The objects called sand dollars never fail to attract interest, especially on the part of visitors from inland points. They are nearly flat and circular, 2½ to 3 inches in diameter, and are plainly marked with five broad rays radiating from the center of the upper side. The creatures that occupy such shells live on sandy bottoms below low-water mark and are a favourite food of haddock and cod.

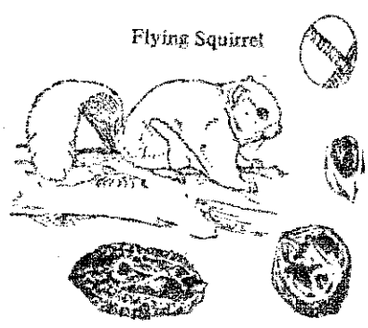
RAZOR SHELL



SOFT-SHELLED

Another shell that attracts attention is that of the razor-shell clam. It is about 6 inches long and an inch wide, somewhat rounded from side to side, and resembles in some degree the old-style razor. Razor-shell clams live in sandy areas near low-water mark and may be dug up and eaten like other clams. Unlike our common soft-shell clams, razor-shell clams, after being dug up, are able to jump about and may make their escape if precautions are not taken.

Would that all readers of this column could have watched the laughable adventures of a young red squirrel at our home the other day. His mother had learned that, by hanging underneath the pulley clothes-line, of aluminum wire, she could run along it, paw over paw, to a large wooden bird-feeder, jung from the lower line. This young chap tried to imitate her, but made the sad mistake of starting out on the upper line. Although clumsy and uncertain in his actions on the wire, he reached at length the vicinity of the feeder, which was about three feet below him, for its weight caused the lower line to sag. Apparently he could not look down when, back downward, he was working his way along the wire, so he stopped frequently to check his position. He would pass the feeder, first in one direction and then in the other, out when at last he was poised directly above it he was faced with the fact that the taut lower line was between him and the feeder, so far down that he could not hope to cling to it when he jumped. Prospects were poor! He worked back and forth, trying to improve them, but always that lower wire was in his way. At length he jumped for the feeder, determined, it seemed, to make the best try in his power, but inevitably he struck the lower wire with force and bounced to the ground. Of any pain or disappointment he gave no sign, but instantly busied himself in searching for food where he landed, as though determined to give onlookers to understand that that was his objective all the while!



THE FLYING SQUIRREL

from the Edmonton Naturalist, October 1976, Vol.4(8), 188 as reprinted in the Prince Edward Island Natural History Society Newsletter No.22, March 1977

The Flying Squirrel is a mild and gentle mammal with special adaptive features that aid in survival and reproduction in its particular environment.

It is an elusive creature with nocturnal and arboreal habits, and is seldom encountered by the average observer. Its habitat is the evergreen forests of the Canadian Zone and locally within the Transition. The favourite environment seems to be mixed wood forest of tall trees, not too dense, with glades and semi-wooded terrain and islands of conifers along river valleys and in highlands.

It is a distinctive, medium sized member of the squirrel family. The only North American squirrel that sleeps during the day and is active at night, and the only one with the unique ability to glide considerable distances through the air from tree to tree. These sailing leaps into the air may span distances of 30 or 40 yards or more. They are able to do this because they have distensible side membranes, an adaptation developed for this purpose which allows the animal to leap from a tall tree and glide to

another at a lower level, also with the ability to swerve right or left during the descent. The skin is loose and full to provide the extended, soft side membranes for gliding; this membrane, in flight, stretches tautly from wrists of the forelegs to ankles of the hind legs. The eyes are large and lustrous, ears low, rounded and wide, the tail is long, soft, broad and flat, with rounded tip, legs are of moderate length. The fine, silky, dense fur is quite unlike that of any other Canadian mammal.

Their food habits are omnivorous, feeding on a diet of seeds, nuts, buds, berries and insects, and meat when available. They have been known to gnaw on frozen baits at traps set for carnivores. They do not accumulate midden waste piles as Red Squirrels do, and do not hoard food for the winter. They also do not hibernate but continue to be active even in sub-zero temperatures. Natural enemies of the species are chiefly owls and martens.

Nesting sites too are adapted to their environment, making use of natural hollows in trees and discarded nesting holes of the larger woodpeckers. They are also known to take advantage of bird boxes which are set out for bluebirds and tree swallows. In them they rest, sleep and sometimes give birth to their young. When first born, the young are naked and sightless for about ten days. The mother nurses them for 6 to 7 weeks and by late summer they have reached adulthood and are able to enjoy the liberties of the forest and secure their own food.

Of no economic importance to man, Flying Squirrels occupy an interesting niche in the natural world.

Reference: Mammals of Alberta by D. Soper.

A NOTE ON FLIES

King's College Record, Vol. XXIV
Windsor, N.S., October 1901

Contributed by Roy L. Bishop, Avonport, N.S.

There is a good deal of character in flies. True, their general behaviour prejudices one against them. It is difficult to study them in a calm and thoughtful mood. They do not lend themselves to dispassionate criticism. But nevertheless they possess individuality and charm. I hasten to add that these qualities are generally concealed under less interesting characteristics.

The common house-fly is seen at his best (or worst) during the month of August. He is then in the full possession of his physical and mental powers, and enjoying what someone has prettily called the "wine of summer." It is then that he may be studied to greatest advantage. Unfortunately, the ordinary individual is limited in the time which is at his disposal for this particular form of natural research. At meal times, and during the hours of early morning, the hunger for knowledge is not very keen and yet these are the occasions when the fly appears in his happiest vein.

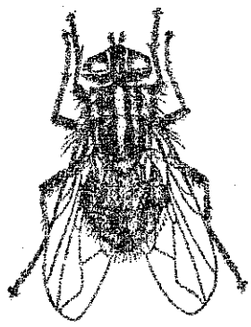
It must be admitted that to the superficial view his actions are usually neither seemingly nor wise. He has a fondness for hot tea and gets scalded to death; he enjoys cream, and two or three of them (at least) are rescued from the jug in an exhausted condition during each meal; he mingles with the butter and sugar; he meets a horrible fate in the porridge. He likes bald spots on the human head. And the great object of his existence, apparently, is the rousing of tired mortals at what another poet has called "the peep of day".

All these peculiarities -- and there are others -- represent the baser side of his nature. And among the unthinking they have given rise to an opinion which is absolute, emphatic, and generally profane. Yet no personality is absolutely worthless, and there are two sides to every question. There is somewhat of interest, even in the genius fly.

The ideal time to investigate what this may be is in the early morning, after a hot night. A patient examination at such a time

will not only prove instructive to the observer and interesting for the observed, but will also marvellously develop the powers of self-control. It will be found that the fly falls naturally into four well-defined classes. You will sometimes find an all-round fly who possesses the characteristics of all classes, but as a rule -- one fly, one class.

There is first, the Philosophic Fly. His mode of procedure may first be outlined. He takes up a commanding position upon a ridge in the white counterpane and awaits for the sleeper to wake.



The latter does so, presently, and the Fly begins to crawl up the gleaming surface towards his victim. The effect of this steady advance is disconcerting. The sleeper, only half awake, blows feebly at the intruder. The Fly disappears and the sleeper closes his eyes luxuriously. When he opens them, the Philosophic Fly is mounting over a nearer ridge, and now is only a foot away. Then he stops and performs his morning toilet. Sleeper is in that delicious state when movement is the greatest evil, and watches Fly drowsily, yet with anxiety. Fly washes head, wings and all six feet. Then he advances again, and disappears from view somewhere in the region of sleeper's chin. Sleeper endures a moment of indescribable misery and then feels Fly on his neck. Waggles head feebly. Fly ascends chin. Sleeper makes faces with his lower jaw. Fly attempts to enter sleeper's mouth. Sleeper closes his lips firmly. Fly cheerfully prepares to examine inside of sleeper's nose. This closes the incident. Sleeper sneezes wrathfully and springs up. Philosophic Fly settles on looking-glass and studies attitudes.

The Inquisitive Fly forms the most irritating class. He crawls on the pillow in the dead of night, making a tiny scratching noise. He alights on the nose of the dreamer. Wrinkle it and he goes, but immediately returns. He does this over and over again. Nothing in life is so important to him as to sit upon the end of a human nose. He wants to know all about it. And the final frantic sweep of the hand, which bruises the nose and jars the whole system, doesn't jar him in the least. He just floats up in the air, and then resumes his seat.

The Humourous Fly is not quite so terrible to a man who has any sense of fun himself. The Humourous Fly takes evident delight in the blow that misses him but leaves its mark on the spot where he ought to be, and tries to lead up to the same climax once more. It is quite in the vein of the human practical joker. Buzz-zz-zz-zt! Shake of the head. Buzz-zzzz-zt! More violent shake. Buzz-zzzz-zzzz-zt! Whack! And a tingling ear, and a Humourous Fly chuckling with glee. He does other things also. He gets shut in stud-boxes and neck-tie cases, and buzzes out in exaggerated alarm. He collects his friends and dances about one's head in the bright summer mornings. But he is more bearable than the other. There is a human touch in his lack of original humour, his delight in accomplishing the same old joke -- and one touch of nature makes the whole world kin.

The fourth class is the best of all. It comprises the Meditative Fly. He is gentle, retiring and never interferes. He is conducive to restful sleep. In the hush of dawn he weaves mystic dances about the centre of the ceiling. You watch him moving in and out, in and out. His complete self-absorption is delightfully soothing. You feel safe. You know that nothing will tempt him from his graceful evolutions. You gaze sleepily, until the endless interweaving lulls you to refreshing slumber.

These be the four classes. One word more may be said of the fly. A word in his favour. He is easy to kill. He lends himself to destruction. He lights on sticky paper, and dies in lingering agony. He imbibes largely of the other kind -- the kind you soak in water -- and drops dead indiscriminately all over the place. It is also said that you can wave the sticky paper round your room just before turning in, and he will obligingly fly up against it. Another way is to tie the same substance about your legs (also immediately before retiring) and walk about. I believe the latter plan was originally suggested for another insect, and proved eminently successful.

When we were children we were told that flies were sent to teach us patience. But it is only in our saddened manhood that we realize the thoroughness with which the lesson is taught.

SWEET HONEY-SUCKING BEES

Sweet honey-sucking bees, why do you still
Surfeit on roses, pinks and violets
As if the choices nectar lay in them,
Wherewith you store your curious cabinets?
Ah, make your flight to Melisuavia's lips.
There may you revel in Ambrosian cheer,
Where smiling roses and sweet lilies sit,
Keeping their springtide graces all the year.
Yet, sweet, take heed, all sweets are hard to get;
Sting not her soft lips , O beware of that!
For if one flaming dart come from her eye,
Was never dart so sharp. Ah -- then you die.

--a madrigal composed by JOHN WILBYE (1574-1638) to words by an anonymous poet.

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Please use the form below or send dues, name and mailing address to our Secretary-Treasurer, John W. Timpa, at the address given below. DUES until Sept. 1st: $1.00/ adult registered or 50¢/ student.

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