HALIFAX FIELD NATURALISTS' NEWSLETTER

March '90 to April '90

90 No. 58





Return address: Halifax Field Naturalists c/o Nova Scotia Museum 1747 Summer Street Halifax, NS B3H 3A6

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HALIFAX • FIELD • NATURALISTS

Objectives To encourage a greater appreciation and understanding of Nova Scotia's natural history, both within the membership

of HFN and in the public at large. To represent the interests of naturalists by encouraging the conservation of Nova Scotia's natural resources.

Meetings On the first Thursday of every month at 8:00 pm in the auditorium of the Nova Scotia Museum, 1747 Summer Street,

Field Trips Are held at least once a month, and it is appreciated if those travelling in someone else's car share the cost

of the gas.

Is open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the Membership society, or by writing to: Membership Chairman, Halifax Field Naturalists, c/o NS Museum. Please note that new

memberships starting from September 1, will include the whole of 1990. Members receive the HFN Newsletter and

notices of all meetings, field trips, and special programs. The fees are as follows:

Individual	\$10.00	per	year
Family			
Supporting	\$20.00	per	year

Executive PresidentMichael Downing823-2081 1989

Past PresidentJohn van der Meer

Doug Linzey, Bob McDonald, Sifford Pearre, Stephanie Robertson, Eleanor Simonyi, Clarence Stevens, Colin **Directors**

Stewart, Shirley van Nostrand

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The HFN Newsletter is produced by the courtesy of the Nova Scotia Museum. It is incorporated under the Nova Scotia Societies Act and is a member organization of the Canadian Nature Federation. HFN is registered for federal income tax purposes. Official receipts will be issued for individual and corporate gifts.

Illustrations

This Issue (No. 58): Cover - H. Derbyshire, adapted from Peterson's A Field Guide to Edible Wild Plants and M. Grieve's A Modern Herbal; pp. 3 - 8 from the collection of Past Editor Doris Butters; p. 9 - Peterson's A Field Guide to Edible Wild Plants; p. 10 - mushrooms adapted by H. Derbyshire from The Complete Book of Mushrooms, by Augusto Rinaldi and Vassili Tyndal, courtesy Alex Wilson; p. 11 - flora from Peterson's A Field Guide to Edible Wild Plants, chickadee - H. Derbyshire; p. 12 - from L. Ferguson's The Fossil Cliffs of Joggins, a NSM Peeper; p. 13 - Peterson's A field Guide to Edible Wild Plants; p. 14 - H. Derbyshire adapted from Peterson's A Field Guide to the Birds East of the Rockies; p. 15 - from the collection of Doris Butters; p. 16 - marsh marigolds from Atlantic Wildflowers, by Griffin, Barrett, & MacKay .

HFN NEWS AND ANNOUNCEMENTS

HFN NEWSLETTER NEWS

RECYCLED PAPER

It has been moved and passed to publish the HFN Newsletter on recycled paper, but I am afraid that this edition will not been the first to institute the practice. The new newsletter will cost each household about \$2.00 an issue more than the present one, and investigations are under way to look into raising the dues. No word has yet been received regarding the move of Education Media Services (where our newsletter is presently printed courtesy the Nova Scotia Museum), so for this issue at least, we will cross our fingers and continue in our old production system.

Also, we are in the throes of looking into the possibility of sending it out via second-class mail, which will cost 8¢ as opposed to the 59¢ we now spend. We are also still searching for some institution who is moving into recycled paper and whose paper-size needs are the same as ours. We still have not found one, but need to in order to reduce the cost of the paper by ordering a larger amount with someone else.

NEWSLETTER RENEWAL

In order to continue to receive your HFN Newsletter, look at the upper right hand corner of the mailing label of your last issue to check the year of your subscription's expiry. If it says "'89", this will be your last issue for this year. If it says "'90", your may settle down in your armchair by the fireside, content in the knowledge that you will be receiving all the latest re HFN's activities for four more issues. For those readers who have merely forgotten in the rush of modern-day life, (as I had), just mail your HFN dues to:

Bernice Moores, Treasurer Halifax Field Naturalists c./o Nova Scotia Museum 1747 Summer Street, Halifax, Nova Scotia B3H 3A6



CORRECTION

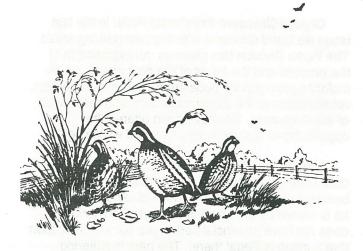
On the cover of the last newsletter, the heading stated the months November '89 to January '90 when it should have said December '89 to February '90. Also, the deadline for this newsletter was January 15, not December 15. Sorry, everyone! (... but could that have something to do with the fact that most articles were in on time?)

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NEW AND RETURNING MEMBERS

Jeff Monchamp Cristabel Nett Jacqui & Stephen Shaw Julia & Joe Landry



SPECIAL CPAWS / 'BOREALIS' OFFER

CPAWS publishes 'Borealis', a magazine comparable with 'Nature Canada' except that the focus is parks and wilderness rather than plants and animals. 'Borealis' can be bought locally, but is primarily distributed to members. We have arranged a one-year trial membership for the members of HFN and other Nova Scotia naturalist clubs, including 4 issues of 'Borealis', for \$15.00. If you renew next year it will be at the regular rate of \$28.00. The regular fee for seniors and students is \$23.00. To take them up on this offer send the \$15.00 (cheque, money order, Visa or Master Card) to CPAWS, Suite 1150, 160 Bloor St. East., Toronto, Ontario, M4W 9Z9. Ask for the trial membership offered through HFN. This offer is for new members only, and expires 1 June 1990.

- Colin Stewart

SPECIAL REPORTS



CONSERVATION ISSUES COMMITTEE

Halifax Defence Complex: A summary of submissions to the Canadian Parks Service planning review of the metro area fortifications has been released. To obtain a copy, or to get on the mailing list, contact: The Superintendent, Halifax Citadel NHP, Box 1480 N., Halifax, B3K 5H7.

Crystal Crescent Provincial Park: In the last issue we listed concerns with the new parking areas. The Parks Division has given us an explanation of the process and the intent of the next phase, which includes provision for pedestrian access to the beach, rehabilitation of the construction site, and restoration of the dune area. We have been offered the opportunity to review these plans and will do so.

Conrad's Island: Conrad's Island is part of the Cole Harbour - Lawrencetown Provincial Park, but because a small parcel of land including the parking lot is owned by the Canadian Nature Federation, it does not have provincial park signs nor any indication that hunting is illegal there. The park is suffering damage from use, including braiding of paths and beach party damage, that could be mitigated by delimiting the parking area and building a boardwalk to the beach. CNF is willing to donate its property to the park once the future of the island as a natural environment area is secured; this is possible under the 1988 revision of the Parks Act. CNF and the Parks department are agreed on what should be done, but are both too busy to meet and do it. The Parks department does not consider it urgent as ownership by CNF confers protection; meanwhile the degradation continues.

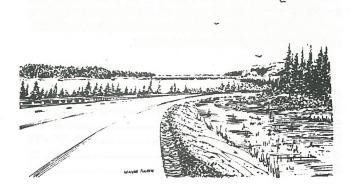
Endangered Spaces: The Halifax Field
Naturalists have been supporting the efforts of the
World Wildlife Fund Canada (WWF) and the
Canadian Parks and Wilderness Society (CPAWS) to
increase the proportion of protected areas in Canada
to 12%. The first step in this campaign was the
publication of "Endangered Spaces: the Future of
Canada's Wilderness", and the development of the

Canadian Wilderness Charter. The second step is also in two parts: to develop a sense of the areas that merit protection, and to demonstrate public commitment by getting one million signatures on the wilderness charter. Both involve developing a network of contacts throughout the province, depending on our own members and those of the other naturalist groups as well. We need to reach about 200 dedicated people across the province, in all ridings and most of the major communities. These people will be asked to distribute the charter and signature forms in their communities (maybe a local store will keep it by its cash register?), and return them to us when completed. They can also tell us about any local areas which may deserve protection, and they can visit their MLAs once or twice a year, keeping politicians aware of the public interest in parks. If you are one of these people, or have ideas on who we could approach, please let us know.

Halifax Harbour Cleanup: Dr. Robert Fournier's Halifax Harbour Task force is expected to produce its report in the spring, probably in March. There has been a suggestion to use part of the budgeted funds to extend a waste pipe from the Bedford area further out into Bedford Basin before the analysis is completed. Another bridge to nowhere?

Forestry: We recently received a copy of the Canadian Nature Federation's Forestry Management Policy, and a ten page questionnaire requesting HFN's views. These papers will be available for perusing at the next few monthly meetings. The policy was mentioned in the 'Almanac' section of the latest 'Nature Canada'.

Ponhook-Molega Lakes: Three rare plant species; Redroot (Lachnanthes caroliana), Golden Crest (Lophiola aurea), and Long's Bulrush (Scirpus longii), have been found on the shore of the Ponhook-Molega lakes by Paul and Cathy Keddy and Irene Wisheu, all botanists at the University of Ottawa. HFN is involved in efforts to protect these



species through the Special Places program, and through public education; local landowners will be asked to see that their native shoreline and wetland habitats are not damaged.

Canadian Parks and Wilderness Society (CPAWS): The Halifax Field Naturalists have become affiliated with the Canadian Parks and Wilderness Society (CPAWS), ensuring that we will be informed on issues that affect the Maritimes. CPAWS has always been very strong in Alberta and Ontario; its strength in BC, Saskatchewan and Manitoba is growing, and it has contacts in Newfoundland and Quebec. The Maritimes and the North are its weakest points across Canada, so this liaison is a major step forward for both CPAWS and us.

- Colin Stewart



CANADIAN ENVIRONMENT NETWORK - WILDERNESS CAUCUS

In December I attended a meeting, held near Ottawa, to create a National Wilderness Strategy. To me the meeting's most important accomplishment was the bringing together of about 50 people all involved in wilderness / protected areas. It's hard to compress a long weekend into a few paragraphs and still convey my feelings of pessimism and despair strangely mixed with optimism.

The accomplishments: First, we declared ourselves to exist. The Wilderness Caucus had had two chairmen and little else for two years. Then a travel grant was obtained, and this meeting was possible.

Second, we declared a purpose for the caucus, essentially accepting the World Wildlife Fund's (WWF) Canadian Wilderness Charter project of the placing a representative 12% of Canada's native habitats into protected areas.

There was discussion about ways, means and useful tools. The Valhalla Wilderness Society had produced a map of B.C. showing both the areas that are protected already and those that should be. These totalled just under 13% of the province, leaving 87% for appropriate development. The society proposed that all provinces should be mapped like this, suggesting that only non government organizations should be involved in accessing any preservation proposal. A mapping committee was created to review the data already available for each province, what tools for handling it are available, and practical, then seeing if there isn't some way of getting them together. It promises to be a very useful process.

These are the reasons for optimism. Pessimism surfaced during the Saturday night session, when one person from each province went over the current issues there. The nine pulp mills in Alberta, and other forestry issues in Manitoba, Ontario and B.C. are immense. There are major damming schemes in Saskatchewan, Manitoba, Alberta and Quebec. The people in the NWT and Yukon are concerned about the renewed pipeline debate. The problem is not so much the activities, as the size of what is being permitted, plus the lack of responsibility for the consequences, or even thorough environmental evaluation before the projects start.

The members agreed that communication will be extremely important. Three existing avenues, apart from personal contact, were identified, and we are contemplating adding a 'Wilderness Wire.' which would go to the people and organizations involved with the Wilderness Caucus. The publications are:

- 1) 'Almanac', the coloured section of the quarterly 'Nature Canada' (CNF); I understand that an extra edition will be sent to members between magazines very shortly, making 8 per year.
- 'Borealis', (CPAWS). Both 'Almanac' and 'Borealis' print notes on what's happening to the natural environment.
- 3) The quarterly update that will be sent to all those contributing to the Endangered Spaces program (WWF). The first of these is due out this month. This has a smaller, but more select, circulation.
- 4) 'The Wilderness Wire.'

HFN will be monitoring them all.

- Colin Stewart



POINT PLEASANT PARK MANAGEMENT PLAN REPORT

On Monday evening, December 4, 1989, Clarence Stevens left me a message about a plan which he had heard on MITV "to cut down 25% - 50% of the trees in Point Pleasant Park". That alarming and terse announcement sent me and others scurrying over the Christmas holidays to see if we could find more information about this grave news.

The first scurry was to attend the November 29 Halifax City Council Meeting of the Whole, where the "Forest Renewal Action Plan" was presented, along with its budget, to Council members by the Point Pleasant Park Commission requesting the funds for its implementation. This proposal was written by W. F. "Slim" Johnson, R.P.F. in October 1989, based upon an earlier, less drastic proposal carried out by Mr Brian Gilbert for LaHave Forestry Consultants Ltd. As a result of comments by Sifford Pearre and Colin Stewart, both biologists and HFN directors, and Bob Ogilvie, environmentalist, the plan was rejected by Halifax City Council. It was agreed that the concerned parties should foregather with representatives of the Point Pleasant Park Commission to discuss their views. This meeting took place on December 8 at noon in the Boardroom of the Nova Scotia Museum, where Stewart Hattie and Janet Kitz of the Point Pleasant Park Commission explained the most serious problems in the park as perceived by foresters and forestry entomologists: bark beetle infestation, overmaturity, "wolf trees", even-aged stands, spider mites, lack of light in heavy stands, etc. Others in the biological, botanical, and environmental fields, some of whom had not attended the Council meeting, expressed their views on Mr. Johnson's Plan and questioned the practice of asking only the forestry profession for advice.

Dr. Joe Harvey distributed a thoughtful review of the Johnson report which articulately expressed what most of us thought was wrong with it. Essentially, Dr. Harvey explored the logical and expectable reasons behind the Commission's request for advice from people trained in standard forestry theory with its concomitant emphasis on economics. "...Where I think it went wrong is right at the start assuming that a forestry expert was the correct direction in which to seek advice. ...". He went on to explain many of the forestry terms used in the Johnson Report, and how they are linked to vigorous tree-growth, telephonepole shape, and economic return. In specific regard to the proposed removal of the "wolf trees" - old, anarled, multiple-trunk trees that take up space that could be occupied by the preferred straight-trunked

variety - he says,



"...Now at this point I get on to sticky territory because I have to get into the philosophical quagmire of defining 'beauty'. You see, to a forester a wolf tree is ugly because it is not an economic unit. But once you get away from economics then other, less well-defined criteria come into play. To some people wolf trees are objects of beauty (the Japanese are better than this than North Americans) and I must admit there is something awe-inspiring about an old, majestic tree even if it is decaying. We are in the realm of the spirit here, not forestry. On a more down-toearth level, wolf trees are in fact that part of the ecosystem which provides habitat such as food, nesting and den sites for a number of birds and mammals, e.g., Squirrels, Woodpeckers, Owls, Osprey, etc. Several animals in fact require old trees in order to exist. ...the responsibilities of management are not limited to considering the economic return side of an ecosystem but have to include a much greater range of considerations. I do not want to express soggy sentimentality over PPP but a management plan based solely on current forest management practice would be a serious mistake."

At the end of this meeting, it was agreed to set up a Technical Advisory Committee to study the park's perceived problems. Stewart Hattie invited the various groups and people there to nominate representatives to join those that he would invite personally. This Technical Advisory Committee was formed and is comprised of:

DEPARTMENT OF LANDS AND FORESTS:

Dr. Tom Smith, entomology

Mr. Brian Gilbert, Mr. Don Marks,

Dr. Ron Robertson, silviculture

Dr. Ed Bailey, soils research

BIOLOGY:

Ms. Nancy Shackell, Ecology Action Centre

Dr. Gareth Harding

Alex Wilson

Prof. K. von Maltzahn

Prof. J. Ogden

Dr. M.J. Harvey

Prof. Bill Freedman



Mr. Bob Ogilvie, geologist/ environmental studies Mrs. Stephanie Robertson, HFN Mr. Douglas Quinn, Parks & Grounds Mrs. Joyce Purchase, N.S. Bird Society





During the months of December and January, 43 logs 15' - 20' in length left the park, some of them from six large white pines cut from one area in the beginning of January, 1990. Maintenance cutting has been part of the Point Pleasant Park Management Plan over the years, but HFN feels that it is necessary to know whether this maintenance is following a certain prescribed plan, a combination of different plans and past advice, and whether detailed records are being kept of the cuts and their effect on the park. Also, some of us on the Technical Advisory Committee would like to know the destination of these cut logs and firewood.

The HFN Conservation Issues Committee and the HFN Board of Directors feels that these following points should be initially addressed at the first meeting of the Technical Advisory Committee:

- That the Technical Advisory Committee be redefined as a Planning Advisory Committee
- That the long-term goals of the Park be precisely delineated.
- That a 200- to 300-year plan be designed, followed, and monitored.
- That a member of the Heritage Society be invited to sit on the committee to monitor good planning and maintenance for the forts there.

There will be more reports on this important Halifax issue in subsequent newsletters.

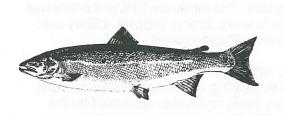
Stephanie Robertson,
 Technical Advisory Committee



MARINE LITTER IN HALIFAX HARBOUR

This past autumn a shoreline litter study of the Harbour was carried out by a group of graduate students at the School for Resource and Environmental Studies, Dalhousie University. According to the survey, on any given day, 10,560 tampon applicators, 8,340 plastic grocery bags, 5,400 styrofoam cups, and 5,400 plastic bottles may be found on the shore of the Harbour.

The study was undertaken to determine the extent of persistent marine litter in Halifax Harbour. Persistent marine litter is any material that is lost, discarded, dumped, or discharged into the marine environment, or that blows into the sea, or is carried down rivers and ends up in the sea. To be persistent the material must also be resistant to rapid



breakdown in the environment. Marine litter is found in all seas and on shorelines as far away as Antarctica.

For the survey, nineteen sites were surveyed from Chebucto Head to Hartlen's Point and included the main harbour, Bedford Basin, the Northwest Arm, the outer harbour and George's, McNab's, and Lawlor's Islands. The sites underwent a preliminary survey and each site was checked, three times, at two week intervals. The litter was collected and then identified according to type and possible origin.

Persistent marine litter has received increasing attention at local, national, and international levels. It is considered a problem because of unwanted ecological, economic, and aesthetic effects. Marine animals, such as seals and whales, are often killed after becoming entangled in, or ingesting litter as are seabirds. This is a particular problem in the case of sea turtles, of which all species are threatened or endangered.

Marine litter also takes an economic toll on the fishing and shipping industry. Ghost nets, lost at sea, continue to trap fish for years before sinking. Nets and rope also foul the propellors of vessels, and plastic debris can block the intake pipes of ships' engines.

Finally, as is the case in Halifax Harbour, persistent marine litter detracts from the aesthetic value of the harbour shoreline. This aesthetic damage also represents economic costs, due to lost tourism potential and costly beach clean-ups.

As regards the origin of the litter collected, since Halifax Harbour is used for recreation, shipping, fishing, and military purposes and for the disposal of industrial effluent and municipal sewage, it was often difficult to determine the origin of the litter, but the survey of the harbour indicates that the vast majority of litter originates within the Halifax/Dartmouth area. Almost eighty percent of the total could be attributed to human sources such as recreation, municipal sewage and land based sources. Therefore, most of the shoreline litter in Halifax could be eliminated by

primary treatment of raw sewage, in combination with a transformation of public attitudes and actions concerning litter. The remaining 20% of the litter was attributed to industry, fishing, shipping, military use, and other unidentifiable sources.

Plastic represented 54% of all the litter collected. In order of decreasing importance styrofoam, metal, glass, paper, wood, and rubber accounted for the remainder. The high percentage of plastic is not surprising given its many uses in everyday life.

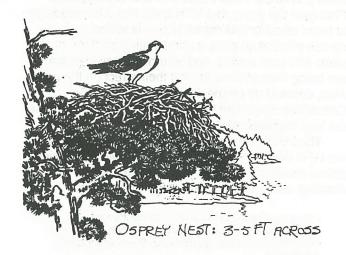
Persistent litter on our shoreline is a symbol of our disposable society. Its presence represents the lack of sensitivity by modern society to the fouling of our natural heritage. Desecrating the ocean with litter also represents a total disregard for the inherent value of the ocean, and that of the many species which depend on the ocean for life.

Because over eighty percent of the litter in the harbour can be attributed to the action of individuals it is possible to reverse the fouling of our shoreline through education to raise awareness of the problem. It is only through personal responsibility on the part of all of us that the problem of marine litter will be solved. Personal responsibility requires attitudinal changes as well as individual and collective action.

Also the nature of the garbage found should make us consider further the 5R's of waste management: Reuse, Recycle, Reduce, Recover, and Reject. The presence of garbage should be seen as a waste of valuable natural resources and its production and disposal should be viewed from a cradle to grave approach. It is a shame that much of the litter generated in Halifax/Dartmouth finds its grave on the shores of our harbour or at the bottom of the Atlantic. Such a resting place generates enormous but overlooked ecological, aesthetic, and economic costs on society and the ocean.

Copies of the final report are available at the School for Resource and Environmental Studies for \$5.00 each.

— Environmental Studies Joint Project Group



NOVA SCOTIA TRAILS FEDERATION

Since our last report the NSTF has concentrated on organizational activities and has gained an eighth federate member, Canoe Nova Scotia. At a recent weekend planning meeting the board of directors established priorities for the next eighteen months.

Our activities in the near future will focus on: communications via newsletters and information sheets; research and development of a trails strategy for the province; and development of a base for trail creation and maintenance training.

We would like to hear from people with experience and interest in trail building and maintenance. we especially want to hear from people who are interested in participating in the publication of a quarterly newsletter.

You may contact me at 445-4943 for information.

Doug Linzey , HFN representative to NSTF



SPECIAL ARTICLES

GET ORGANISED TO GET ATTENTION TO GET ACTION

When an environmental story is beamed from the nightly news programmes or splashed across the headlines of a daily newspaper, how confident can one be that the information pouring out is accurate or even balanced?

Surely a reporter quoting seemingly knowledgable sources from government, industry or an embattled environmentalist would get all the facts? Most of the time one can assume just that, but not always.

Journalists faced with daily deadlines are often forced to rely solely on government or industry spokesmen for information on a story. However, these sources are often on the same side of an issue, leaving the information that gets to the public dangerously unbalanced. It is unfortunate that environmentalists also sometimes twist facts, largely to grab the attention of the media, hungry as it is for the next controversy, the next confrontation.

Now naturalists may want to avoid being involved in this apparently sordid business altogether, but I believe they have a valid and useful role to play.

Within each of the numerous naturalist associations scattered across the province are members with detailed knowledge of the immediate environment; journalists would like to tap into this.

Supposing a controversy broke out over whether a proposed mine threatened the existence of a rare bird or plant. With each side trying to put forth its version of the truth, field naturalists could be invaluable in providing accurate, and hopefully dispassionate, information about what really is at stake in the area.

Now some may say it is the media's job to find all the information without having it handed to them, and that is fair criticism; that indeed is our job. But save for some under-worked colleagues known to us, most journalists in this province write more than one story a day, leaving little time for day-long searches for sources. What we find instead are the same sources used repeatedly, whether or not they have the most accurate information.

Field naturalists again may want to shun the mixed blessings that come with being in the media spotlight, but if they value what they now enjoy, the time has come to get involved. Today that means more than going on walks and overnight camping trips; it means getting a message across, via the media, to the far greater number of people who do not do these things but appreciate the importance of conservation. Collectively, both sides can force action from government and industry.

Naturalists have already begun to move in the right direction with last year's formation of a provincial umbrella group to coordinate policy at that level. What is needed for effective interaction with the media is for local associations to develop their own spokesmen as well, who with their alternates, would be well versed in all aspects of their association's interests. Should that prove impossible, several members could share the responsibilty, each taking over a number of items of special interest to them.

Phone numbers of these contacts would then be forwarded to the provincial body for dissemination to an appreciative media.

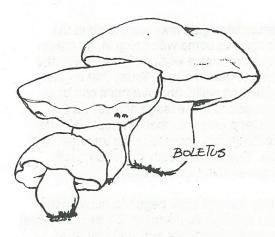
Field naturalists must get involved because the threats to the things they enjoy are not going away. Fighting to save the province's dwindling wild space involves getting a message across, and that means working with, and occasionally suffering the slings of, the media.

But failure to do so could be fatal; for all of us.

— Stephen Bornais, reporter for The Daily News



FIELD TRIPS



MUSHROOMS AT HEMLOCK RAVINE

DATE: September 17, 1989
PLACE: Hemlock Ravine, Halifax
WEATHER: Overcast with rain

PARTICIPANTS: 17 LEADER: Carolyn Bird

SPECIES OF MUSHROOMS: 25+

A cool wet afternoon is normally unpleasant for field naturalists' outings, but the rain was a godsend for mushroom hunters. Carolyn Bird explained that moisture may bring out fruiting bodies of the fungi; she hoped it had rained enough!

We weren't disappointed. There were more species of fungi within yards of the parking lot than we expected to find in the whole trip.

Identifying the species seemed like a black art to neophytes like us. Carolyn outlined some of the field marks to look for - the colour and overall shape, gill structure, presence of a veil, the odour and habitat of the mushrooms. One should break the mushroom to see the colour and speed of staining of broken flesh and the presence or absence of latex or milky juice. And a good microscope would help.

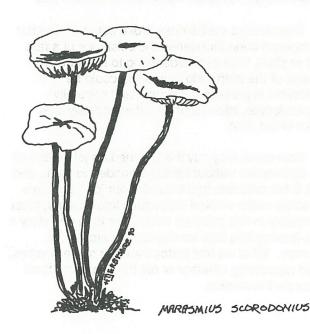
Over and above these were the "little brown mushrooms" which apparently hide their identity from fungi-philes. These were a blessing to us neophytes ... even the experts did not know their identities.

One highlight, or digression, was caused by a flying squirrel deep in the woods, which ventured out of its hollow dead tree to watch our group pass. It would not re-enter its hole until we had backed off some distance. We felt sorrier for it than for us in the pouring rain.

Among the species found and identified were:

Amanita citrina, the Destroying Angel A. flavaconia, an orange species A. muscaria, Fly Agaric, also toxic Various Boletus species Cantharellus tubaeformis Clavaria cinerea, a Coral Fungus Cortinarius armillatus, the Bracelet Cort, and possibly another Cortinarius species Flammula species Gyroporus cyanescens, the Bluing Bolete Hygrophorus flavodiscus, a yellow mushroom H. miniatus H. monticola, with an almond-like odour Hygrophorus puniceus Laccaria laccata Lactarius species Laccinum scabrum Marasmius scorodonius, a mushroom with a garlic-like odour Mycenia species Naematoloma species Paxillus involutus, Poison Paxillus Pholiota squarrosoides Pleurocybella porrigens, Angel's Wings Pseudohydnum gelatinosum, the Jelly Tooth Fungus Russula species Scleroderma aurantium, a species of Puffball.

— Steve Saunders



FALL COLOURS

DATE: October 7, 1989

PLACE: Old Annapolis Road Hiking Trail
WEATHER: Overcast and drizzly, 11 degrees C

PARTICIPANTS: 12, plus baby Peter

LEADER: Joanne Dircks

Twelve Halifax Field Naturalists met at 10 a.m. at the Nova Scotia Museum for the purpose of enjoying a beautiful fall day. Our drive to the hiking trail was foggy but we could still see the beautiful fall colours through the haze. The Old Annapolis Road Hiking Trail was established in 1975 by Bowater Mersey Paper Company Ltd. of Liverpool on company land near St Margaret's Bay, Halifax County. Approximately 75% of the land surrounding the trail has been harvested by company loggers over the past 25 years and is presently producing trees in various stages of regrowth. Portions of the trail also travel through lands which have never been cut. Before we started our hike we noticed a lot of granite around the parking lot. The air here seemed so fresh and the colours that the trees were displaying were breathtaking.

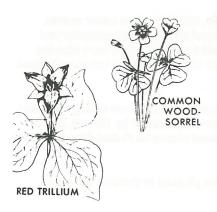
As we started our first walk around the Island Lake Loop we began to notice the lichens along the path; some of the ones we were able to identify were:

Pink Earth Reindeer Moss British Soldier Spoon and Lung Lichen



There was evidence that this was a haven for wildflowers at different times of the year. We were able to identify many from the leaves left behind:

Mayflower Bunchberry Goldthread Wood Sorrel Asters Goldenrod Wild Lettuce Clintonia Starflower Trillium Labrador Tea
Pitcher Plant
Huckleberry
Cotton Grass
Wintergreen
Sarsaparilla
Steeplebush
Pearly Everlasting
Creeping Snowberry





We paused for a time at Island Lake Bridge, then carried on. The trail was dotted everywhere with mushrooms; they seemed to pop up under every bush. Some of the familiar ones were:

Russula Milky Lactarius Puff Balls (*Calvatia*) Bracelet Cort (*Cortinaria armillatus*) Angel's Wings (*Pleurocybella porrigens*) Boletus.

The woods on this trail were very peaceful except for the sounds of the squirrels. The trees in this area are common in Nova Scotia, including Larch, Maple Fir and White Pine. One of the more interesting was a Moose Maple (striped).

We returned to the parking lot, where we had our lunch. Now we were prepared to start on the Rafter Lake Loop. There seemed to be more bird activity in this area; we were able to identify:

Raven Black-Capped and Boreal Chickadees Blue Jay Red-Breasted Nuthatch.

The entire area was covered with a Nature's carpet of mosses. We also noted Staghorn and Tree Club-Mosses. There were still some ferns adding to the beauty, noticeably Cinnamon Fern, Beech Fern and Bracken.

When we reached Rafter Lake we discovered it had been dammed and the place where we had planned to cross was flooded, so we walked back through the woods on a very hilly but beautiful trail. When we reached the parking lot it had started to rain, so we thanked Joanne for a wonderful afternoon. s We felt very fortunate to have witnessed Mother Nature's fall colours at their very best along the trails and knew we were in for a colourful drive home as well.

- Sandy Bessonette.

FOSSIL TRIP TO BLUE BEACH, HORTON BLUFF

DATE: October 22, 1989

PLACE: Blue Beach, Horton Bluff

WEATHER: Beautiful

PARTICIPANTS: 18, including children LEADER: Brenda Roscoe, Geologist

On a warm and sunny Sunday morning a friendly, interested group of Field Naturalists met at 10 am in the Nova Scotia Museum parking lot. Once our leader Brenda Roscoe had been introduced, we pored over road maps to find the location of our intended destination and then left for our meeting place at the Esso Station in Hantsport. The earliest arrivals discovered that the small store there had not only food but washrooms.

When we were all accounted for, we headed off in convoy to our destination at Blue Beach! There, Brenda showed us some of the geological features and where to look for various fossils. After having "lunch on the rocks", we spent the rest of the afternoon searching for and finding fossils.

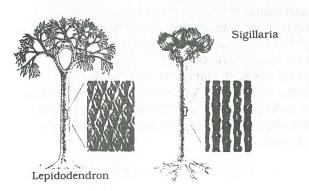
At the right when you reach the beach is a fault contact between the shales, siltstones, and thin sandstones of the older Horton Bluff Formation to the northwest, and the cross-bedded conglomerate and sandstones of the Cheverie Formation. Both formations are included in the Horton Group, laid down in the Mississippian Epoch some 350 million years ago (Paleozoic Era).

The sedimentary features we saw were: wave and interference ripple marks; mudcracks; raindrop imprints; cross-bedding; concretions.

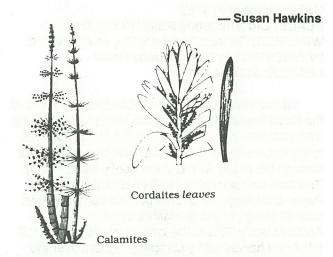
Along the beach you can find plant fossils; bones, teeth, scales and fin spines of fish; amphibian bones; and sometimes footprints of the largest fossil amphibians ever found in rocks this old. Trace fossils are also common; they are the tracks and trails left by ancient organisms.

We had a terrific time when one or two members found fossilized wood exposed by the erosion of the cliff. The wood was in chunks; roots of *Sigillaria* and *Lepidodendron* species (collectively, *Stigmaria*), seeds and grass-like fossils (*Cordaites*) were also found.

After this surprise, we went back to the parking lot,



before the rising tide engulfed us on the beach. Then we said our good-byes and took off homeward-bound. It had been a beautiful, well-spent day.



TREES AND SHRUBS IN WINTER

DATE: January 7th, 1990

PLACE: Near intersection of Highways 101 & 102

WEATHER: Cold, clear PARTICIPANTS: 10 LEADER: Mike Crowell

Ten people, including an infant, met with Mike Crowell and his dog on a cold clear Sunday in January, to explore an area of the outdoors near the intersection of Highways 101 and 102. Mike pointed out that part of the area had been used as a gravel pit, and was well disturbed. The other portion of the walk, however, would be in a forested area, and, if all worked well, we might find some large old Beech trees that had not been infected with canker.

The open gravel pit area led to a discussion of plant succession, and the importance of such easily grown and hardy species as Willow and Alder was quickly explained. Alders, particularly, are involved with bacteria in the fixing of nitrogen from the air into the soil, thereby creating the conditions necessary for the next level of growth.

The vegetation discussed that day ranged from Cattails to Red Oak. The differences between Mountain Maple and Moose Maple were pointed out, as were the differences among Grey, Yellow and White Birch. We also learned the differing characteristics of young Hemlock and Balsam Fir.

The signs of wildlife, however, were rather sparse, though we did see holes of a Pileated Woodpecker and tracks from deer, fox and squirrels. There were also the steady stream overhead of gulls travelling between Bedford Basin and the dump.

The benefits of Aspen to wildlife were clearly explained to us. Apparently this tree is preferred by Beaver, and the buds provide a winter food source for Ruffed Grouse and several other birds.

A lot of people were pleased to discover the green

presence of both Christmas and Wood Ferns. The knowledge, however, that the source of the Beech tree canker in North America was likely our own Public Gardens was a little disheartening. Our spirits soon rose again though as we ventured back into the forest and found the large uninfected Beech trees that Mike had promised.

For those of us who have difficulty identifying trees in the summer when they are in full leaf, it was quite an experience to find out that all those branches, twigs and buds have identifiable characteristics, and can actually be named. I am not sure how many trees I could identify now, but it is comforting to know that there are people like Mike who can tell a branch from a twig, and are willing to take the time to share their knowledge with the rest of us.

Thanks, Mike.

- John Maly



NATURAL HISTORY

LOOKING AHEAD TO SPRING; A DIFFERENT DRUMMER

A muted sound drifted through the bedroom window in the darkness before a spring dawn.

"Putt...putt...putt...brrrrrrrrmmmmmmm". Too early for some fool with a chainsaw or a lawnmower. I dozed off

some fool with a chainsaw, or a lawnmower. I dozed off again with the happy realization that the grouse had survived another winter.

Ruffed Grouse, or Partridge as they are locally called, are the only birds that drum by pounding the air. Chickenshaped and weighing less than a kilogram (about a pound and a half), Ruffed Grouse have handsome feathers patterned with brown, black and buff. Their name comes from a ruff or collar of dark feathers which males fluff out to attract females.

Males drum each spring to attract a mate and proclaim a territory. Climbing a fallen log, rock or a melting snowdrift, they stand upright with tail spread wide and, with a firm grip of the claws, pump the air with strong wings.

Putt...putt...putt... Then, like an engine suddenly catching ignition, the wings beat full throttle. Brrrrrrrrmmmmmm.

Air is compressed by nearly 50 wingbeats in eight seconds to produce a low frequency (40 cycles per second) sound that can be heard up to 1-1/2 kilometres away. One male may use as many as six locations for drumming, but one site is usually favoured. One grouse was observed drumming on a log completely surrounded by floodwaters.

Drumming echoes off trees and hillsides, confusing predators as to the origin and distance of the sound. Apparently Great Horned Owls cannot hear the sound and bypass most drumming sites.

In good habitat, Ruffed Grouse territories cover 2.5 - 4 hectares (6 to 10 acres). Often these territories are

clustered. The reasons for this are unclear. Suitable habitat is frequently patchy. Another reason may be that one male's drumming prompts others to drum. This may serve to attract more females. During the breeding season, a female may visit several territories and witness several males drumming before she mates and chooses a sheltered spot for a nest.

Ruffed Grouse require three types of habitat:

Brushy areas with low growing cover are used by females rearing their broods and for food in summer and fall. Leaves and insects are preferred.

Older stands of hardwoods, such as aspen or poplar, birch, choke cherry and serviceberry, supply buds in fall, winter and spring. Apple trees are favourite autumn feeding spots. Grouse eat rose hips in midwinter. Male flowers (catkins) of aspen, poplar and other hardwoods are a protein-rich food in spring.

Limby softwoods growing in open areas provide nighttime roosts, shelter from predators and escape from cold winter winds.

Nests are built each spring in alder thickets, mixed wood and hardwood stands, and sometimes Christmas tree lots. Cup-shaped nests lined with leaves are built on the ground, often near the base of a tree. The female lays from nine to 13 eggs in late April or early May.

Newly hatched chicks follow their mother when only a few hours old. Females provide parental attention for eight to 10 weeks, vigorously defending their young. I have been viciously attacked on my own doorstep by a female grouse protecting her brood. The only gentlemanly thing to do was run back into the house and leave quietly by another door.

Stories about unusual grouse behaviour are numerous.

Grouse sometimes become very tame. Some come to the sound of a logger's axe, or even a tractor motor. Photographers have tricked grouse within range of viewfinders by beating on their chest or on the ground to imitate drumming. Grouse will occasionally attack tractors or pantlegs with a vengeance, or do battle with their own image in a window or hub cap.

During the fall young grouse, seeking territory of their own, may disperse several kilometres from the four-12 ha (10-30 ac.) where they grew up. Away from familiar surroundings, many fly into vehicles, walls or windows. The office staff of *Rod and Gun Magazine* in Quebec were reported startled one day when a grouse burst through a window and proceeded to perch on a bookcase.

Grouse populations increase and decrease in cycles and are known to be influenced by changes in forest habitat quality, the type of snow cover, nesting success and predation. For reasons not fully understood, the ability of grouse to tolerate cold weather appears to change over time.

For more information on managing your forested lands for Ruffed Grouse, write to us at the Department of Lands and Forests, P.O.Box 68, Truro, N.S., B2N 5B8. Managing grouse habitat is an important way to ensure that our "different drummers" continue to march in Nova Scotia woodlands.

— Bob Bancroft Reprinted from 'Conservation', Vol.13, No.3, Fall 1989



THE HARDY AND USEFUL COLTSFOOT



The fanciful rendition of the Coltsfoot on the cover of this HFN issue would never look just like that in the field. This is the way plants are sometimes portrayed to show all possible parts that an observer may encounter during the growing season, in order to be able to better identify the thing. Growing in waste places, roadside cuts, in wet or dry soils, this plant's flowers appear in early spring before its leaves begin to show. The dandelion-like solitary flower head has both yellow disk and ray florets, which later turn to soft, white bristles, and die down as the leaves begin to appear. Its stalks are covered in reddish scales.

Coltsfoot, Tussilago farfara, (from the Latin tussis—'cough', and tussilago—'cough dispeller'), belongs to the Aster family. It is a perennial which flowers from late April to early May and has many different common names in Europe, such as Coughwort, Hallfoot, Horsehoof, Ass's Foot, Foalswort, Fieldhove, and Bullsfoot. It has long-stalked, hoof-shaped leaves, about four inches across, with angular teeth on the margins. Both surfaces are covered when young with loose, white, felted woolly hairs, but those on the upper surface fall off as the leaf expands. This felty covering can be rubbed off and in former times was wrapped in a rag, dipped in saltpetre, dried in the sun and used for tinder before the introduction of matches.

The seeds are crowned with a tuft of silky hairs, the pappus, which are often used by goldfinches to line their nests. It has been reported that in former days Scottish highlanders used these fluffy seed-heads to stuff their pillows and mattresses.

The underground stems live for a long time when buried deeply, so that in places where it was not seen before, it will often spring up in profusion after the ground has been disturbed. As a weed, it is very difficult to eradicate.

Coltsfoot is mentioned in many herbals, both ancient and more recent. It was reputedly introduced from Europe, and the Micmacs smoked it to relieve asthma, bronchitis, cattarh, and respiratory troubles in general. The following is taken from Peterson's "A Field Guide to Edible Wild Plants of Eastern/Central North America":

(It can be used for) "... Candy (cough drops), cough syrup, tea, seasoning (salt). An excellent cough syrup or hard candy (cough drop) can be made by boiling fresh leaves and adding sugar to the resultant extract. When making hard candy, add two cups of sugar for every cup of extract and boil until the rich syrup forms a hard ball when dropped in cold water. The dried leaves can be steeped to make a fragrant tea, or burned and the residue used as a salt-like seasoning.

— Stephanie Robertson, adapted from Petersons's "Edible Wild Plants" and Grieve's "A Modern Herbal" TABLE DES MAREES

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Black Guillemots

CONRAD'S ISLAND

At the moment Conrad's Island isn't (an island, that is). When hurricane Gabrielle passed along shore near Sable Island in October, the swell it created scoured a lot of fist-sized and larger rocks with seaweed attached, as well as sand, from the sea bottom and moved it onshore. This filled up the drainage channel separating Conrad's Island from West Lawrencetown beach; the latter is privately owned and has been hard to reach hitherto. The marsh now drains only under the bridge leading to the parking lot, resulting in a higher water level and decreased salinity in the marshes and channels. Incidentally, the outflow now blocked was only formed about 1963, the result of a blowout after years of commercial sand removal

As of mid-January, the channel is still blocked, but there is an increasing amount of seepage through the sand, a lot of which has moved, so it seems probable that the channel will reform. It will be interesting to see whether there are any changes in the flora and fauna of the marsh.

- Colin Stewart

NATURE NOTES

- about 50 dovekies were seen at Crystal Crescent Beach in November. These birds usually hang around at the edge of the continental shelf. Have they been blown in?
- Regina Maass's 'rogue' potato that she discovered growing in her compost weighed 1.4 K, had a small hole in the middle, and tasted excellent.
- There is a bald eagle feeding regularly at Conrad's Beach.
- Susan Hawkins' parents have a pheasant hen in their backyard in Mahone Bay.
- 6 turkey vultures, the first seen in N.S. in the winter, were included in the Brier Island Christmas count on Dec.
- —ducks from Sullivan's Pond in Dartmouth are hanging around the Maritime Museum. (Should someone charge them for loitering?)

! NEXT DEADLINE! April 15 for May Issue

Contributions to the Editor, HFN c/o NS Museum or phone 455-8126