HALIFAX FIELD NATURALISTS' NEWSLETTER

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March to May 1996

No. 82



Return address: HFN, c/o NS Museum of Natural History, 1747 Summer Street, Halifax, NS, B3H 3A6

HALIFAX • FIELD • NATURALISTS

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

Objectives	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 of Natural History, 1747 Summer Street, Halifax. Meetings are open to the public.
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. Everyone, member or not, is welcome to take part in field trips.
Membership	Is open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the society, or by writing to: Membership Secretary, Halifax Field Naturalists, c/o NS Museum of Natural History. New memberships starting from September 1 will be valid until the end of the following membership year. The regular membership year is from January 1 to December 31. Members receive the HFN Newsletter and notices of all meetings, field trips, and special programmes. The fees are as follows: Individual\$12.00 per year Family\$18.00 per year Supporting\$20.00 per year FNSN (opt.)\$5.00 per year
Executive 1995	President
Directors	Deborah Burleson, Patricia Chalmers, Ursula Grigg, Bernice Moores, Peter Payzant, Rich Peckham
Mailing Address	Halifax Field Naturalists c/o Nova Scotia Museum of Natural History 1747 Summer St., Halifax Nova Scotia B3H 3A6
Internet	http://ccn.cs.dal.ca/Recreation/FieldNaturalists/fieldnat.html
Committees	Programme
•	Newsletter Editor Ursula Grigg Almanac Patricia Chalmers Layout/Artwork Stephanie Robertson Distribution Mary Primrose Shirley van Nostrand 835-3673 Conservation Colin Stewart
HFN	is incorporated under the Nova Scotia Societies Act. It is a member organisation of the Federation of Nova Scotia Naturalists and of the Canadian Nature Federation. It is registered for federal income tax purposes. Official receipts will be issued for individual and corporate gifts.

Illustrations (All illustrations not acknowledged are either by H. Derbyshire or are from copyright-free sources) This Issue (No. 82): P. 3 - birds, collection D. Butters; p. 5 - Pitcher Plant midge (*Metriocnemus knabi*), adult and larva - Marcel Cornect; p. 6-9 - collection D. Butters, p. 15 - Halifax Tide Table courtesy Dept. of Transport.

Objectives

HFN NEWS AND ANNOUNCEMENTS

NATURAL HISTORY SURVEYS

A lot of Nova Scotia natural history surveys are going on this summer; a **Frogwatch**, a **Plantwatch**, a survey on **Ladybugs**, a **Butterfly Count**, a **Breeding Bird Census**, and an **International Important Bird Areas Campaign**. Have some fun and take part! HFN is directly involved in one or two and heartily supports all. For those not detailed below, see pages 11 and 12 for surveys, information, and contacts.

Nova Scotia Butterfly Count

In 1975 the North American Butterfly Association organised the first Butterfly Count; 29 areas were surveyed. It has continued annually every 4th of July, gradually widening its net to include Canada and Mexico in 1994 with 249 counts. For all keen naturalists and butterfly fans, the MNH and HFN will offer a Butterfly Identification Training workshop in mid-June, and 2 preparatory field trips — one at the end of June and one in early July. The first NS Butterfly Count will take place approximately the third week of July. Contact Peter Payzant, 861-1607, or peter.payzant@nspower.ns.ca

Nova Scotia Breeding Bird Census

HFN has decided to set up a Breeding Bird Census plot somewhere in Nova Scotia. This "spotmapping" method of counting birds was started by the National Audubon Society in 1937, who collected and published the reports. Publication of these important surveys ceased in 1984 due to financial constraints; subsequently the number of counts plummeted. The Association of Field Ornithologists is now publishing them again, and feels sure that this will continue to generate an ever-increasing number of annual bird counts. Contact Peter Payzant, 861-1607, or peter.payzant@nspower.ns.ca

IMPORTANT NOVA SCOTIA BIRD AREAS



We are including CNF's complete letter about BirdLife International's Important Bird Areas (IBA) campaign on page 7 because HFN believes that by protecting local areas important to birds, habitats of many other animals and plants will also be protected.

"THE WORLD OF CRANES" ADVANCE NOTICE

George Archibald will be making his anticipated visit to Nova Scotia this summer. He has agreed to give a public lecture titled "Cranes, their biology, their problems and the efforts of the International Crane Foundation to help these endangered birds." The local sponsors of this event are HFN, the Bird Society, and the Museum of Natural History. Date and time: Saturday, July 6th, at 8 p.m.; the place is not yet settled. Admission is \$5, for the Foundation. To increase the donation for the International Crane Foundation, a tote bag, hand-painted with cranes, will be raffled (tickets \$2 each, or three for \$5). A pot-luck supper for 35 people, to meet George Archibald, is also planned for July 6th. The price, \$25 a plate plus a potluck donation, includes admission to the lecture later. These places are expected to be taken quickly, so anyone who would like to attend should contact Bernice Moores at (902) 422-5292 **as soon as possible after April 14th.**

FIELD TRIP PARKING

We are going to keep reminding everyone for awhile about our change of parking area at the Museum of Natural History for field trips. The new meeting place at the MNH will be the northside Staff Parking Lot, on the other side of the museum (access is a little further down Summer Street). The MNH would like us to leave the southside Visitor's Parking area free for the general public while they are attending its weekend programmes.

NOVA SCOTIA FEDERATION OF NATURALISTS' AGM

FNSN's 1996 AGM and concomitant weekend programme will be hosted this year by the Annapolis Field Naturalists' Society, June 7 - 9, at Annapolis Royal. Nine excellent speakers/leaders, 14 field trips, children's programmes, post-conference excursions, banquets, and barbecues will make for a wonderful, wonderful weekend! The AGM registration form is enclosed; hope to see you there!

NEW AND RETURNING MEMBERS



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HFN AGM, 6 MARCH, 1996

PRESIDENT'S MESSAGE

Conservation

The most important development this year was the Federal/Provincial consultation on the future of McNab's and Lawlor Islands. The Conservation Committee - Colin Stewart, Ursula Grigg, Greg Crosby, and Pat Chalmers — prepared, Ursula and Colin presented, and Pat and Ursula produced the final written submission of, our recommendations to that Commission. Halifax Council is currently working on Mainland Commons, Halifax Commons, and Birch Cove Park. Some of our members are involved in this. Our Director Rich Peckham is very knowledgeable about the green spaces and parks in the Sackville River/Bedford area. He is keeping us posted. There are other local areas of interest to naturalists' that we are watching. Colin Stewart deserves special thanks for continuously and tirelessly monitoring the conservation issues in Nova Scotia for HFN.

Endangered Spaces

Piping Plover Support from the Federal Environmental Partners' Fund Programme is finished now, but in the field the Nova Scotia Piping Plover Protection Programme is still going strong under the capable and active leadership of Etta Parker and her dedicated beach-groups of trained volunteers. The other Atlantic provinces are also still active with their same leaders and groups. Thank you to retired Cathy Fulton and Stephen Flemming for past work well-done, and to Colin Stewart, one of the programmes cofounders.

Projects

HFN Surveys HFN in partnership with the MNH has prepared a Butterfly Checklist to accompany a Nova Scotia Butterfly Count this following summer. We will set up a Nova Scotia Breeding Bird Census. We are looking into carrying out a Natural History Survey in Uniacke Estate Park, and are exploring possibilities at other sites, such as a Sackville River Greenway.

Sunship Earth Sponsorship Once again this year, HFN sponsored a child to attend Sunship Earth Camp.

Hfx/Dart.Bedf/Hfx Co. Science Fair It is our policy to present Science Fair awards only if there are Natural History projects judged to be worthy of exceptional merit by HFN. In 1995 the junior prize was awarded for a low-technology methods project on "Gel Extraction from Seaweed", and our senior prize was awarded for "Oleophilic Properties of Canadian Sphagnum and its application to Oil Spill Recovery Systems". Many thanks to our Archivist, Dr. Bob MacDonald, for judging these fairs.

Committees

Tea | am sure that everyone who dives so eagerly for the tea table after our Thursday night programmes will agree that Regina Maass, who sometimes actually bakes German specialties for these meetings, has lent a special touch to this aspect of HFN. Thank you so much Regina. She is still awaiting a replacement however; baking skills are not a prerequisite --- just be present to assemble the tea cart, brew the water, and set out the treats.

Programme Jennifer MacKeigan and Cathy Fulton have steadfastly continued their excellent range of programming this year; they would welcome new members with new contacts and more ideas.

Newsletter We have had more than the usual input and submissions from members in 1995. Thank you everyone. It is delightful to have too much rather than too little to put in our guarterly newsletters. Hearty appreciation to Ursula Grigg for her editing skills, Pat Chalmers for her excellent Almanac, and Mary Primrose and Shirley Van Nostrand for very efficient distribution. The cost of newsletter production will be halved as of forthcoming issue No. 82 (Spring 1996). Better photocopying technology and associated central retail outlets have made this possible. A large part of the newsletter costs are represented by postage; we are looking to future internet distribution. Our best wishes and sincere appreciation go to printer Guy Harrison of ArtProLitho who has handled our work with topnotch skill, patience, and dependability from the time we had to begin paying for our own newsletter production which was initiated with issue No. 65. Winter 1991/92.

Membership Shirley Van Nostrand has ably handled once again our membership database, despite past software and hardware frustrations! Thank you Shirley.

Treasurer Greg Crosby is our very able and hard-working treasurer. He lends class to our sometimes harried Executive meetings by turning up in suit, shirt, and tie! Greg, with unerring accuracy and tenacity, has nailed down every HFN cent and Piping Plover T-shirt possible!

Secretary Cathy Fulton resigned her secretarial position this January and handed over her records to Director Linda Payzant who had already agreed to be nominated for Secretary this year and has been recording our minutes since then. Thank you Cathy, for loyally carrying out the duties of HFN secretary.

I would like to thank everyone again, for both your invisible background dog-work, your upfront, visible project work, and your dedicated interest to the dissemination of increased natural history awareness. This is what makes the Halifax Field Naturalists such a special, fun, and successful club.

-Stephanie Robertson, President





Halifax Field Balance	Sheet		
As At Decem	ber 31, 1995		
<u>Assets</u>			
	<u>1995</u>	1994	
Cash	\$3,166	\$2,100	
Accounts Receivable	298	4,801	
Inventories	1,963	2,320	
Investments	10,846	6,715	
Fixed Assets (Note 1)	1	440	
	\$16.274	\$16,376	
Liabilities and Surplus		1010/0	
Accounts Payable Surplus	\$ 759	\$359	
Restricted (Note 2)	1 0,517	9,883	
Unrestricted	4.999	\$6,134	
	15,516	16017	
	<u>\$16,275</u>	\$16,376	

PROGRAMME REPORT

It is the Programme Committee's unofficial mandate to provide the members of the Halifax Field naturalists with as varied a programme as possible.

We think we achieved that goal in 1995. Last year we gazed at the stars and looked underfoot. Guest speakers shared their experiences in prying the earth's secrets from under her skin. We explored the avian world of snow geese, eagles, hawks, shore birds, to name a few. We canoed at Keji and strolled through the grounds of Uniacke House. We visited an arboretum, examined autumn flowers, and learned how to make our gardens wildlife-friendly. Neither was the world of mammals ignored. In addition, we experimented with a four-season field trip to Conrad's Beach. Unfortunately, we only completed three seasons; although the trips were well-attended, no one attended more than once to compare one season to the next.

It is our hope that we have provided topics of interest to everyone. A request for future topics has been met with enthusiasm by some members, and we have utilised some of these suggestions already and plan to use more in upcoming months. This need for suggestions, however, is ongoing. New perspectives can only enhance the programmes we offer, and more suggestions, or new members to the Programme Committee would certainly be welcome.

We are well into planning our programme for the next several months and hope that the Halifax Field Naturalists' members will find it as interesting as we do. Please remember, this is your association and we can't provide topics of interest to you unless you tell us what those interests are.

-Jennifer MacKeigan Cathy Fulton

MEMBERSHIP REPORT

	NEW	RENEW	TOTAL	SUPP.	FAMILY	FNSN
1995	33	108	141	5	45	41
1996 (roFea.22)	16	94	110	5	35	40

A supporting member is one who pays \$20.00 or more. Most new members seem to join in the fall. The Family category represents the number of family memberships paid out of the total membership.

The membership reminder sent with the winter newsletter is very effective in reminding people that it is membership renewal time. The membership form also facilitates the processing of membership data. Apologies to those who were offended by the most recent reminder, — the wording indicated to some that it was a second reminder! Your address label will tell you your membership category and expiry date In its upper right hand corner (i.e. F96 would indicate that you have paid for a family membership which expires Dec. 31, 1996). Even though our membership year runs from Jan. 1 to Dec. 31, new members that pay after Sept. 1 are considered members for the following year as well (i.e. Sept. /95 to Dec. /96).

FNSN: When you pay the extra \$5.00 affiliation fee for the Federation of Nova Scotia Naturalists, you are a member of that group and receive their newsletter. Their membership year dates twelve months from whatever date you pay their membership fee.

I hope this helps to clarify things.



HALIFAX CITY PARKS



Work is going on in three city parks; Bob and Wendy McDonald take an active interest in those near them, and their reports on Mainland Common and Birch Cove Park follow. Meanwhile there are plans to refurbish Halifax North Common. Anyone who would like more information on any of these sites should contact: Bernard Moe, Planning Dept., City of Halifax, P.O. Box 1749, Hfx, N.S., B3J 3A5, 421-7874.

Mainland Common

The following is based on a recent letter from Bob McDonald to Bernard Moe; to date there has been no response.

The way in which development of the Mainland Common is progressing, despite the conclusions reached during public meetings, is very disappointing. The groups involved in these meetings were not all environmentalists or ecologists but were simply potential users of the Common.

Two days of community workshops in 1991 to develop a Master Plan, plus a telephone survey, produced a consensus in favour of low impact outdoor activities and requested the creation of hiking, walking, running and bicycle trails and the opportunity for nature observation. There were also requests for playing fields, to be sited primarily on the treeless area. All that has happened so far is very extensive clearcutting, back-filling, and the building of baseball diamonds.

The creation of pedestrian and cycling trails which are compatible with one another and which exclude cars would be much less costly than what is being carried out — eight baseball diamonds, two other playing fields, ten parking lots and paved access roads to all of them! Meanwhile several special features of the area that were to have been protected, including a pond surrounded by a bog containing several native orchid species, and some unusual small hardwood stands, seem to have been lost.

In sum, the Common, which is for all City residents, is not being developed according to public input, and the proposed citizens' liaison committee has not been established.

Birch Cove Park

— Ursula Grigg

The Halifax City Planning Department held a public input workshop on Feb 6, 1996, at the Thomas Raddall Library, regarding a new city park: Birch Cove Park. Shirley van Nostrand, Ursula Grigg, Wendy and I attended this workshop.

Clearly, Planning Department staff had already given considerable thought to a Park Plan, but more about that later. There were about a hundred of us at the workshop. We broke up into groups of 8-9, each group having a discussion leader and a note-taker.

The proposed park stretches for a distance of about 1.5 km along the Bedford Basin at Birch Cove, from Prince's Lodge at the north end to Hogan's Point at the south. The China Town Restaurant, privately owned, is roughly at the midpoint. At present, there are modest groves of trees at the north and south ends but most of the shoreline is rocky — walkable in some areas but in others too narrow to navigate, especially at high tide.

The general consensus from all groups was that it should be possible to walk the Park in its entirety; this implies that some fill (clean) or boardwalks would be required in certain areas. Then there was the matter of access; at present, the only reasonably safe access is at China Town where there is also a large (but private) parking lot. Safe public access (and some parking) would be required also at the north and south ends.

Other things mentioned by some groups were: the preservation of natural shoreline flora and fauna; selective planting of suitable native trees and shrubs; and, eventually, the construction of a visitors' interpretation centre which would focus on the human and natural history of the area. There was little interest (thankfully) in playgrounds, picnic tables or any commercial ventures, although a couple of groups expressed interest in a wharf where non-motorised water craft (canoes, row-boats and sailboards) could be launched. The idea of a dock or pier catering to anglers was also put forward. It is interesting that the majority of the public in attendance had much less grandiose plans for the Park than the City staff who put together the "Birch Cove Park Feasibility Study," dated June 1993. — Bob McDonald

Update

Public meetings to report on these two parks were held in the first week of March. Wendy McDonald went to both. Very briefly:

The meeting for Mainland Common, in the Raddall Library on March 7, was chaired by Director Nick Murray, City Recreation Department. He read several pages from the planning document produced in 1992 after the workshops, and discussed actual development in relation to the Commonwealth Games, for which Halifax bid but lost. There were no illustrations, and little chance for input. Nick Murray has agreed to share a field trip with HFN to the Common in July.

Mainland Common, 166 acres, can be reached from Westridge Drive or Lacewood Drive.

The meeting for Birch Cove Park, on March 5, was much more upbeat; few people were told of the meeting, and very few came, but progress was reported. Partnerships have been formed between the City and such agencies as Ports Canada, CNR, and the Nova Scotia Department of Environment. Places of historic interest like the old stone wharf will be respected, and so will the environment. Where there are mussel beds, boardwalks will form the path; in other places, infilling will be used — carefully. Concerns expressed at the workshop are being addressed.

Work will start on a pathway with a pedestrian access point at each end, a parking lot between Bedford Highway and railway about halfway along, and a small boat launch, as soon as money is available.



PART 2 - PROJECTS AND COMMUNITY INVOLVEMENT

Although the initial objectives of Halifax Field Naturalists were 'to learn and educate,' it soon became apparent that more would be needed. Growing awareness of environmental dangers turned the group towards more active participation in conservation of our precious natural heritage: "...creation of wildlife preserves and attempts to change the destructive aspects of our technological society must be an eventual role of the Halifax Field Naturalists." — Paul Keddy.

As early as November 1975 Alan Ruffman, outlining the plans of the Metropolitan Area Planning Committee (MAPC) to set aside seven areas for park purposes, argued for stronger legislation to protect them. In view of the speed of urban growth, the amount of land in private ownership, and the uncertainty as to what 'park' should mean. Alan doubted that the projected use would be respected. He encouraged HFN members to follow events and report their observations; this produced the club's first letters of concern to government. During the following years the tides of conflicting interest ebbed and flowed. and it was not until 1985 that Hemlock Ravine became a City park. Conrads and Lawrencetown Beaches and McNabs Island were under various degrees of government protection; Cole Harbour was partially protected but endangered by the threat of overdevelopment. Of the other designated regions, Lake Charles was rapidly succumbing to urban development and no progress was made on Admirals Cove, Sandy Lake, Long Lake, and Chain Lake.

The matter did not rest there. HFN remained vigilant, and each time "parkland" was mentioned, letters of concern were sent to government. In 1976 the proposed MacKenzie Valley pipeline project was being discussed all across Canada, and on behalf of HFN Paul Keddy and Don MacDougall prepared and presented a submission before the Berger Commission Hearings, being held at that time in Halifax.

From the beginning, Paul Keddy had expressed concern over budworm spraying, and the danger to natural predators of the budworm — in particular the Bay-breasted and Cape May Warblers. Letters were sent to Premier Regan; Dr. DeLory, minister of Lands and Forests; and Glen Bagnall, Minister of Environment; expressing concern and opposition to the spray programme. A report and a précis of the correspondence was published in HFN newsletter No.2, December 1975. In consequence, a successful day-long Spruce Budworm Symposium was held on January 24, 1976, at Dalhousie University, sponsored by HFN, Ecology Action Centre, and both levels of government. Scott Cunningham was the co-ordinator.

Two years later HFN gave \$40 to Ecology Action Centre to assist in the production of their brochure on Spruce Budworm. As a result of the combined pressure from anti-spray groups, the Nova Scotia Government bowed to public opinion. Dalhousie University's Institute of Resources and Environmental Studies created a continuing research programme directed by Bill Freedman, to study the environmental impacts of forest practices on the forests of Nova Scotia.

The society also supported Private Member's Bill No. C253 — "To provide the establishment of a Canadian Sea Coast Conservation Authority," although this was a project which stood little chance of passing at that time. However, St. Catherine's River Beach now is a seaside adjunct to Kejimkujik National Park.

During 1976, Parks Canada was considering a master plan for the management of Kejimkujik National Park. To encourage citizen involvement a Master Planning Kit was prepared, containing information on the park and a questionnaire for generate input. To help members and the general public appreciate the problems involved, HFN sponsored an Open Workshop on April 21, in the Dalhousie Biology Building, with Peter Hope, Chief Park Naturalist at Keji as special guest speaker. He gave an illustrated talk on the natural history of the Park and the problems of management. A beautiful, intricate poster was designed by artist Derek Sarty to attract attention in areas where people might not have heard of Halifax Field Naturalists and the Workshop.

In May 1976, Paul Keddy, Scott Cunningham, and Debra Burleson went to Ottawa to represent the society at a symposium on "Canada's Threatened Species and Endangered Habitats". This was sponsored by the Canadian Nature Federation and the World Wildlife Fund.

Also in 1976, a feasibility study to consider the possible impact of the proposed Fundy Tidal Power Project was being undertaken by the Power Review Board. In September, Winnie Cairns and Harriet Rueggeberg represented HFN at the three-day Annual General Meeting of the New Brunswick Federation of Naturalists and the N. B. Conservation Council, at which the Fundy project was the dominant theme.

1977 proved to be a particularly productive year. From the beginning, individual members had worked behind the scenes to pressure government into keeping their habitat preservation promises, but some did more than write. Cathy Keddy submitted to City Hall a study for park planners on the Hemlocks of Hemlock Ravine and later that year City purchased 140 acres for park use. However, it was not until 1985 that the pathways were gravelled and a concrete edge built around the heart-shaped pond.

Paul Keddy attended, and edited the Proceedings of a Symposium on Recreational Land Use; he also produced a Regional Resources Manual printed for us by the Nova Scotia Museum, and designed HFN's first brochure.

Paul was also involved in protesting the Department of the Environment's invasion of the proposed Maitland Ecological Reserve. Areas were cleared wholesale without any attempt made to find out what flora and fauna were there — to the detriment of unique flood-plain species. The hibernaculum of the thousands of bats which winter in the caves was also being affected by increased public useage, and the society wrote letters of concern to the government about this matter.

Chris Corkett put together a special HFN display for INTRODAL '77, an open house weekend sponsored by Dalhousie University and held in every faculty on the campus.

Early in the spring of that year mounting interest in conservation led the society into a rather unusual project. Dune buggies and trucks had severely damaged Martinique Beach, an Eastern Shore beauty spot, even before a violent winter storm washed out a large section of the sand dune protecting the lagoon on the lee side.

With the assistance of the Department of Lands and Forests, and under the leadership of HFN member Murray Cunningham, a Work Weekend was organised in April to try and remedy the situation. Lumber and brushwood, trucked partway by Parks staff, was manhandled to the damaged area by 19 HFN stalwarts who built racks across the gap and secured brush to them to form a fence. Then over the next few months - with crossed fingers — they awaited results. The idea worked! Sand blown inshore drifted against the barrier and began to build. Tim Randall kept a photographic record of the project until - alas - late the following February a particularly severe storm swept the whole barrier away as though it had never been. Shades of King Canute, who 900 years ago demonstrated that we can never command the sea!

However, the club did receive a 'thank you' letter from Parks Planning, with the suggestion that more citizen groups should cooperate with the Parks Division and become involved in practical aspects of conservation. Unfortunately, another Workday in 1985 was a failure; the weather was foul and few people turned up. Later efforts were more successful, on both Martinique and Lawrencetown Beaches. The latter, protected by then, had also been damaged by pedestrians and cars.

The next challenge came in June, 1977: Halifax City Parks and Gardens staff started an overall treespraying programme with Malathion and Sevin; they sprayed Paul Keddy as he stood outside his home along with everything else! Halifax Field Naturalists questioned the safety of the mixture and produced medical and scientific evidence showing the dangers to human health. In conjunction with the Nova Scotia Resources Council, Ecology Action Centre, and the Nova Scotia Bird Society, HFN raised the matter in the press; a radio interview followed. Council bowed to the pressure and spraying was stopped until 'definite answers were found to questions about human health.' On behalf of HFN Paul presented a brief before City Council and the Committee of the Whole, recommending more practical alternatives to widespread chemical spraying. Move and countermove followed, but eventually Council decided to maintain the ban and adopted a programme which by-and-large was that outlined in HFN's original brief, as published in newsletter No. 12, August '77.

After the spraying was banned, leaf damage by insects increased, and some people pressed for renewed spraying. By November 1978 Council was again debating the question, and resumption of spraving was planned for the following spring. This time Joe Harvey attacked the decision by an effort to educate. A balanced overview of the situation was published in HFN newsletter No. 19, December 1978, and copies distributed to all City aldermen; those views were reiterated later, on a CBC Information Morning programme, on June 5, 1979. Subsequently, Joe Harvey, David Patriquin, and Ken Neill of Dalhousie University, and Susan Mayo of Ecology Action Centre, prepared an effective opposition and City Council did not ratify the proposed spray programme. Council then asked Dalhousie Biology Department to conduct a survey of City trees. Joe asked HFN members to assist by surveying trees on their own street; a simple guide sheet was prepared plus a questionnaire to be filled out and returned to Joe. Eleven members did help, but the majority of areas were surveyed by Joe and David. Lengthy analysis showed that on the whole City trees were healthy and did not need to be 'saved.' The results were handed to Council and later published in newsletter No.22, December 1979.

Early in 1982 the problem surfaced yet again, and once more Joe sprang into action. His correspondence with the Mayor and City Council appeared in newsletter No,.30, February 1982. This time a decision was brought down to spray only when needed, with insecticidal soap — a programme which still continues.

And 1977 was the year the Halifax/Dartmouth Annual Regional High School Science Fair was inaugurated. Halifax Field Naturalists offered a book prize, a scroll beautifully lettered by Pat Evans, and a year's membership in HFN for the best project in natural history and conservation. The judges, Estelle Laberge, Howard Ross, and Paul Keddy, were disappointed by the emphasis placed on technical science and engineering — leaving far too few entries in natural history and conservation. The prize,however, was awarded to Stella Couban, a Grade 10 student at Sir John A. MacDonald High School for her project on Water Quality in Various Lakes and the Bedford Basin. One result of the field work done on the project was the discovery of a *Streptococcus*, a serious disease organism, in Lake Banook.

Another project for HFN in 1977 was assisting with the Nova Scotia Museum's Fern Project — that of mapping species and locations of all Nova Scotia ferns. Cathy Keddy did most of the work on this. Continued collecting and Museum cataloguing of any new finds is based on this project to this day..

Also during that summer, in cooperation with the Heritage Trust of Nova Scotia, HFN participated in a Regional Resources Awareness Programme, funded by a Young Canadians Works Programme grant. Four of the society's younger members: John Jenkins, Barry King, Marcel Maessen, and Kim van Feggelen, led walks to existing and proposed local regional parklands. They discussed the ecological, environmental, and historical aspects of the areas, with the object of raising public awareness to the need for creation of parks and their preservation in a relatively natural and unblemished state. Approximately 450 persons attended the more than 25 walks.

The local parks problem has not been entirely settled yet, though progress was made during the first 10 - 12 years during which HFN had taken an interest in it. Shubie Park, Martinique Beach, Clam Harbour, and Taylor Head were well-established under various levels of Government. Conrads Beach and Lawrencetown Beach were still in the planning stage, and Cole Harbour was only partially protected and still in danger of over-development. McNabs Island was under government protection and Hemlock Ravine was now a City Park. At HFN's Tenth Anniversary Annual General Meeting in 1985, Regional Parks were once again the theme.

- Doris Butters

FIELD TRIPS

SEWER STROLL

DATE: Sunday, January 21, 1996 PLACE: Various locations around Halifax Harbour; Sullivan's Pond in Dartmouth WEATHER: Sunny; highs of -8° INTERPRETERS: Peter and Linda Payzant PARTICIPANTS: 11

"Sewer Strolls" have become a regular feature in the birding calendar in the Halifax area. The route is generally the same, proceeding around Halifax Harbour either clockwise or counterclockwise, stopping at well-known sewer outfalls. If the governments ever get the sewers collected and brought to a proper treatment plant, it's going to be a sad day for winter birding in this community.

This trip started at Hartlen Point, which was a new location for some participants. We had a fine view of Devil's Island, and across the harbour mouth, Chebucto Head was plainly visible. From the beach, we saw our first seabirds of the day, including Blackbacked and Herring Gulls (*Larus marinus, L argentatus*), Black Ducks (*Anas rubripes*), a Redbreasted Merganser (*Mergus serrator*), a few Common Goldeneye (*Bucephala clangula*) and two spectacular Oldsquaw (*Clangula hyemalis*), one with a fine long spike of a tail.

Our next stop was an oil wharf in Eastern Passage, where we had good looks at a Common Guillemot (*Uria aalge*) in its white winter plumage, and had distant views of a flock of Scaup (*Aythya* sp.). They were too far away to decide which species they were, although previous field trips had found Lesser Scaup (*Aythya affinis*) at this location. Behind the Tim Horton's across the road, we had a fine Northern Mockingbird (*Mimus polyglottus*), and thoroughly nonplussed the customers in the lineup for the takeout window as we stared through their cars at this bird.

Behind the old North Woodside school, Linda spotted a Northern Shrike (*Lanius excubitor*), which was highly cooperative: even its hooked beak could be seen through the scope. We also got our first good looks at Common Black-headed Gulls (*Larus ridibundus*), and recorded the only Common Loon (*Gavia immer*) for most participants on the trip.

The outfall at Dartmouth Cove produced lots of gulls in very good light. We looked closely for a Bonaparte's Gull (*Larus philadelphia*) among the Black-headed Gulls, without success, but a couple of seals partly made up for the disappointment. A brief stop at the Shubenacadie Canal interpretive centre yielded a cooperative (if pedestrian) American Coot (*Fulica americana*). Green legs and lobed toes admired by all, we pushed on to Sullivan's Pond.

Among the hundreds of Black Ducks were some real prizes (admittedly, expected prizes). There were perhaps ten American Wigeon (*Anas americana*), and one beautiful Eurasian Wigeon (*A. penelope*), with a startling brick-red head. The rarity of the trip was probably the female Tufted Duck (*Aythya fuligula*), associating at times with a female Ring-necked Duck (*A. collaris*). Although we failed to locate a rumoured Northern Cardinal (*Cardinalis cardinalis*) in the area, we did see a male Wood Duck (*Aix sponsa*), surely one of the most fantastically-plumaged species in our avifauna. Tufts Cove held a few more Black Ducks andWigeon, and more Common Goldeneye were visible at extreme range. After a hasty lunch in the shelter of the cars, we departed for the mouth of the Sackville River, in Bedford. The brilliant sunshine was right in our faces here, and the hoped-for Hooded Merganser (*Lophodytes cucullatus*) did not materialize, so we contented ourselves with two marine Mute Swans (*Cygnus olor*), and yet another flock of Goldeneye, again at long distance.

The lighting was much better at the Mill Cove sewage treatment plant, where we had fine looks at a good variety of gulls and several Common Goldeneye at fairly close range. Our final organized stop was at the outfall at the Fairview Container Pier, where we had faint hopes of a one-time traditional Lesser Blackbacked Gull (*Larus fuscus*). Alas, we dipped out, and the trip broke up at about 1:30. One party proceeded to locations further around the harbour, including Tribune Head, Duncan's Cove, Chebucto Head and the Herring Cove look off. Additional species included a Pied-Billed Grebe (*Podilymbus podiceps*), a Dovekie (*Alle alle*), Common Eider (*Somateria mollissima*) and a Great Cormorant (*Phalacrocorax carbo*).

Everybody seemed to enjoy themselves, the weather cooperated, and no one fell into Sullivan's Pond - altogether a pleasant and satisfying trip.

- Peter Payzant

EAGLE TRIP

DATE: Saturday 27 January 1996 PLACE: Sheffield Mills, Kings County, and vicinity WEATHER: overcast, -9° with a cold wind; very little snow on the ground; ice in the ponds INTERPRETER: Merritt Gibson and Jim Wolford PARTICIPANTS: 10 HFNers plus members of the Blomidon Naturalists and others; 70-75 in all

We gathered at the Robie Tufts Nature Centre in Wolfville, where Merritt and Jim told us about the eagles we were going to see. The late Cyril Coldwell was the first to attempt a winter feeding program for Bald Eagles (Haliaeetus leucocephalus) and other raptors in the Annapolis Valley. Most of our nesting eagles migrate from their breeding grounds and they used to either head south for the winter, or eke out a precarious existence along our coasts where they can fish in the open water. Winter is a very difficult time for younger birds, which are not vet proficient at catching their own food. In the last few years many poultry farmers have been encouraged by Cyril Coldwell and others to put their dead chickens out in the fields to feed the eagles. Normally the farmers either burn or bury agricultural carrion (as they must do in the warmer months to prevent the spread of disease). This ready availability of large quantities of food have encouraged hundreds of eagles to make their winter home in Kings County, and they have become a tourist attraction. The village of Sheffield Mills holds a community festival, "Eagle Days," each

year in late January or early February. Last year two thousand people came to see the eagles on that weekend. Our trip was held the week before the festival, so as to avoid the traffic.

We set out in a convoy of twenty-five or thirty cars, and once past Canning began to see big birds roosting in the large elms that overhang the country roads. The temptation was to pull over immediately, but we followed our leaders, who knew where the best viewing sites were. Along the roads we also saw the occasional Red-tailed (Buteo jamaicensis) and Roughlegged Hawks (Buteo lagopus) perched as look-outs on power poles, as well as Common Ravens (Corvus corax), all of which seemed dwarfed in comparison to the eagles. At the first spot where we stopped, we could look out over a field to a line of trees edging a stream (part of the Habitant River?). There birds were in constant motion, flying about shrieking, and landing and rising from the trees - you could scarcely count them. However, there were at least thirty-five Bald Eagles in one of the biggest elm trees at one time, and there were perhaps eighty in all at that site. Jim and Merritt got out their telescopes so that we could take turns getting a good look at these awesome birds, and they explained the various plumages.

At another site the farmer was waiting for us to arrive before he fed his eagles. The big birds are rather like some humans - a little slow to get going in the mornings - and they remained perched in the trees for some time, looking over the spread, before they decided to come down for a bite. There were dozens in the hardwoods, where they appeared as indistinct dark shapes against the grev sky and the brown fields. However, many other eagles had chosen solitary perches on the tops of spruce trees, where with their white heads and tails they showed up well against the dark green foliage, and looked, as one person remarked, like so many Christmas tree angels on their tree-tops. A third farm along the Middle Dyke Road was surrounded by a tangle of Multiflora Rose bushes laden with hips, which had attracted a busy flock of at least thirty Bohemian Waxwings (Bombicilla garrulus). A small tree in the front yard hosted three female Pine Grosbeaks, which were new to some of us. They were very tame and twittered calmly while we admired them.

Our last stop was at Kingsport, where the cold wind blowing in from the Minas Basin brought tears to our eyes. There were more eagles and ravens here, but by now we had seen so many the excitement had worn off and we were feeling rather sated. Merritt estimated that we had seen about two hundred and twenty-five in two hours; opinions varied on the proportion of juveniles to adults. Many counts are held of the eagles each winter, and the numbers vary wildly. Jim Wolford observed that since Bald Eagles no longer seemed to be in danger, there were no longer studies being done on this population. We don't know definitely what impact the winter feeding in KingsCounty is having on the Nova Scotian population, but it seems likely that more first and second year birds are making it through the winters and reaching sexual maturity, and therefore will live to breed. We can certainly hope to see many eagles flourishing in our province.

Thank you, Merritt and Jim, for showing them to us.



KLONDYKE — KLONDIKE — HOW DO YOU SPELL IT?

DATE: 11 February 1996 PLACE: The Museum of Natural History WEATHER: indoor, museum-type weather INTERPRETER: Cathy Fulton PARTICIPANTS: 4

While 'Klondike' is the more accepted spelling of this famous area, 'Klondyke' is a closer version of the original word in the Tagish language.

In 1896, gold was discovered in a creek bed in the Yukon, north east of the yet-unfounded Dawson City. Within two years, 100,000 souls headed for Canada's North West. 30,000 actually made it there, either to search for the abundant mineral at its source, or to reap it from those who found it. Dawson City became the biggest city north of San Francisco and west of Winnipeg. And a bustling place it was too! Anything a heart desired could be had — at a price. During the long winter, eggs were \$1 apiece, but for the rich miners, that was a mere pittance!

On February 11, I led a small but successful tour through the Klondyke Gold Exhibit at the Museum of Natural History. The participants learned about the discovery, those who made it, and the hardships and successes of those who followed. Several artifacts were on display, along with beautiful specimens of nuggets and gold dust, or 'flour gold', as it is known in the business. Sluice box jewellery was a beautiful thing to behold. One bracelet on display was 3 inches wide, and covered with small nuggets that were pure gold — 24-karat pure!

Trippers got the opportunity to pan for gold as well. The pay dirt used was from the only working one-man gold operation in Nova Scotia. Edgar Horne was kind enough to let us have the tailings left over from his processings. Tiny flakes of the precious stuff were found mixed with the sand left in the pans after all the gravel was washed away. Hey! — they may be tiny, but collect enough and it sells for C\$500 an cunce!!

Fantastic specimens of Nova Scotia gold were also on display. Lode gold, found in our quartz veins, is rare. Some of the specimens on display had up to 60 troy ounces in them. The Nova Scotia gold is still on display at the Museum of Natural History; it is now located in the Geology Gallery.

And believe me — even if you missed the Klondyke exhibit, you can still get gold fever by looking at the Nova Scotia gold. I know I do, each time I pass it on my wanderings through the galleries!

- Cathy Fulton

NATURAL HISTORY SURVEYS

Nova Scotia Frogwatch

500 Frogwatch kits have been issued across the province to 8.000 people! Approximately 120 groups, 150 individuals and families, and 230 schools will be eagerly listening for peepers and having a look at amphibian breeding habitats. March 19 was the date of the first report last year, from Jordon Bay, Shelburne Co. To follow this year's ongoing results, visit the Museum Home Page at www.ednet.ns.ca/educ/ museum/ --- Peeper maps will be updated with incoming data every week from the first recorded date. The NSMNH, The Clean NS Foundation, and Envirosphere Ltd. are partnering this environmental education and biomonitoring project, and want to develop a continuous, long-term programme provincewide. They hope to recruit a Frogwatch "A Team" who will be interested in a long-term commitment to the monitoring of amphibian habitats. Interested individuals and/or groups contact Sue Browne, MNH at 424-3727.

Nova Scotia Plantwatch

Want more purpose, discovery, and fun in your springtime walks? Take part in the first NS plant phenology watch. Included in this issue is a write-up, form, and identification guide for the 12 spring flowers that were chosen for this survey. Learn which environmental trigger starts each of these plants blooming.



Important Bird Areas

HFN has been asked to publish the following letter from the Canadian Nature Federation. Although we are not specifically a bird society, it seems worth our while to propose some of our favourite places for protection, for by protecting areas important to birds, habitats of many other animals and plants will also be protected.

"On 1 September 1994, the Canadian Nature Federation (CNF) and the Canadian Centre for the Study and Preservation of Birds (CCSPB) signed a Declaration of Intent to become the official BirdLife International partner in Canada. BirdLife International is a non-government organization dedicated to promoting worldwide interest in and concern for the conservation of birds and the special contribution that they make to global biodiversity. One of BirdLife's major campaigns is its Important Bird Areas (IBA) program.

In Canada, the BirdLife partner is responsible for implementing a Canadian IBA program, the focus of which will be to identify and protect areas of global, continental and national importance. As well, we will work cooperatively with provincial-level naturalist organizations in the identification and protection of sites of provincial importance. The IBA program is unique in that it is comprehensive, it fits into a global effort to identify important bird areas around the globe, and it is neither site or species specific: it deals with all birds and all the sites they require to ensure adequate populations. The identification phase is expected to take 1-3 years to complete. Results will be published in the Directory of Important Bird Areas in Canada.

As the sites are identified, we intend to advocate protection of these areas - through formal protected area designation, changes in land-use practices, and development of local volunteer-based "warden" groups. The Halifax Field Naturalists could get involved in ensuring the protection of these sites. It is no secret that we have designed a very ambitious workplan. Success lies stringently upon a coordinated and cooperative approach. We need to work in close contact with our international BirdLife partners, the federal government and provincial agencies. Because birds know no borders, we believe that an integrated application of the IBA program in Canada is essential if we want to conserve this international resource. If you would like more information about the Important Bird Areas Program or a copy of our fall newsletter (postage & handling fee of \$2.00) please call (613) 562- 3447, fax (613) 562-3371, e-mail 72233.3536@compuserve.com or write to:

Christie Chute Important Bird Areas Program 1 Nicholas St., Suite 520 Ottawa, ON K1N 7B7"

Spot the Ladybug!

Here is another letter from the Canadian Nature Federation about their 1996 Ladybug Survey. Children would love to take part in this one!

"The Canadian Nature Federation (CNF) is looking for Canadian naturalists to help spot ladybugs in their backyards, in their gardens, and while on vacation this summer. There are more than 500 different species of ladybugs in North America; however, some of these have been introduced into the United States from overseas to control aphids in orange groves. These introduced species are fierce competitors and are expanding their ranges across Canada. There are not enough data available to determine what effect this influx of alien species is having on our native populations of lady beetles.

CNF is recruiting volunteers nation-wide to identify lady beetle species they find locally. We have chosen 13 of the commoner lady beetles, including two introduced species, and produced an identification kit which includes illustrations, identification tips, and natural history information about these insects: Our goal is to have volunteers identify the lady beetles they find and send in a report form noting the species and where it was found.

The project is part of the Endangered Plants and Invertebrates Programme (EPIC). Existing conservation plans concentrate on more visible animals and higher plants; however, these account for less than 10% of all species in Canada. EPIC attempts to protect the remaining 90%, including insects, nonvascular plants, fungi and algae. This program, partially funded by Science Culture Canada, attempts to inform people of the important part EPIC species play in natural systems.

For people with World Wide Web access via computer, the lady beetle survey can be found at: http://schoolnet2.carleton.ca/english/math_sci/ env_geol/ladybug/

To receive a copy of the species illustrations with identifying tips, please call 613-562-3447, fax (613) 562-3447, e-mail epiccnf@web.apc.org or write to:

Scott Plunkett Canadian Nature Federation 1 Nicholas St. Suite 520 Ottawa, Ontario, K1N 7B7"







This almanac provides dates of events which are not found in our programme: for field trips or lectures which members might like to attend, or natural happenings to watch for such as eclipses, comets, average migration dates, expected blooming seasons, etc. Please suggest other suitable items.

A thing which has seemed to me very remarkable in the maple water is this, that if, by boiling, it is reduced to a third, it becomes a real syrup, which hardens to something like sugar, and takes on a reddish colour. It is formed into little loaves, which are sent to France as a curiosity, and which in actual use serve very often as a substitute for French sugar. I have several times mixed it with brandy, cloves and cinnamon, and this makes a kind of very agreeable rossolis. The observation is worthy of note that there must be snow at the foot of the tree in order that it shall let its sweet water run; and it refuses to yield this liquid when the snow appears no more upon the ground.

- Chrestien Le Clerq, New Relation of Gaspesia(1691)

NATURAL EVENTS

early March	Great Horned Owls begin laying eggs
mid-late March	Blue Jays start nesting; they lay eggs in early April
20 March	Spring Equinox at 4:03 a.m. AST: Spring begins
21-23 March	Venus appears near the waxing crescent Moon, 7:30 p.m. to 9 p.m.
23 March	daily average temperature at Shearwater is above zero
last week March?	first tentative peeps of awakening Northern Spring Peepers heard in Halifax County
last week March	Skunk Cabbage in bloom in Digby and Yarmouth counties
early April	Mercury visible in the evenings
2-3 April	Venus is within the Pleiades star cluster between 8:00 p.m. and 9:30 p.m.
3-4 April	total lunar eclipse, visible from Nova Scotia; 7:26 p.m. until 9:59 p.m.
6/7 April	Daylight Savings Time begins: turn clocks ahead one hour
first week April	Coltsfoot comes into bloom
mid-April	Eastern Dwarf Mistletoe blooms
16 April	daily minimum temperature at Shearwater is above zero
20/21 April	Lyrid meteor shower: 10 per hour
22 April	Earth Day
28 May	last spring frost in Halifax (that is, Environment Canada says that there is only a 1 in 10 chance that
•	the last spring frost will occur after this date); look forward to 155 frost-free days
2-9 June	Environment Week

Sources — Atmospheric Environment Service, <u>Climatic Normals 1951-80 Halifax (Shearwater A) N.S. (</u>thanks to Peter Payzant for this); Blomidon Naturalists Society, <u>A Natural History of King's County</u>, 1992; Colombo's <u>Canadian Global Almanac</u>, 1995; Dickinson, Terence, "Night Watch" column; Erskine's <u>Atlas of Breeding Birds of the Maritime Provinces</u>, 1992; Sue Brown of Frogwatch '95; Gibson's <u>Winter Nature Notes for Nova Scotians</u>, 1980; Tufts' <u>Birds of Nova Scotia</u>, 1986; Royal Astronomical Society of Canada's <u>Observer's Handbook</u>, 1996; the personal observations of Bob Guscott and the compiler.



SUNRISE AND SUNSET ON LATE AUTUMN AND WINTER SATURDAYS

2 Mar	6:50	18:04	6 April	5:46	18:49	
9 Mar	6:37	18:13	13 April	6:33	19:57	
16 Mar	6:24	18:22	20 April	6:21	20:06	
23 Mar	6:11	18:31	27 April	6:10	20:15	
30 Mar	5:58	18:40				
4 May	6:00	20:23	1 June	5:32	20:53	
11 May	5:51	20:32	8 June	5:29	20:58	What .
18 May	5:43	20:39	15 June	5:28	21:02	
25 May	5:37	20:47	22 June	5:29	21:04	ASA
20	2.01		29 June	5:32	21:04	Fryn

ORGANISATIONAL EVENTS

Blomidon Naturalists Society — Meets on the 3rd Monday of the month, Room 244 in the Beveridge Arts Centre, Acadia University, 7:30 p.m.

14 April "Spring Birds - Ducks and Early Migrants" with Judy Tufts. Meet at the Robie Tufts Nature Centre at 9:00 a.m. Bring lunch and rubber boots.

15 April "And the Cow Jumped Over the Moon". The role of Canadian women in astronomy, with Mary Lou Whitehorne.

19 or 26 Apr. "Frog Hop" with Jeff Franklin. Meet at Robie Tufts Nature Centre at 7:30 p.m. Bring flashlight and rubber boots.

11 May "Birds, Flowers, and Cape Split" with Sherman Williams. Meet at the Robie Tufts Nature Centre at 8:30 a.m. Bring lunch, and be ready for a 10km+ walk.

Dartmouth Volksmarch Club — Meets for organised walks, at least 10km, every Sunday at10:00 a.m. Pick up their schedule at the Trail Shop on Quinpool Road, or phone 435-5252 for information.

Friends of McNabs Island — Usually holds several trips to the Island; no dates have been set yet. Contact Dusan Soudek at 422-1045 or Mike Tilley at 465-4563.

Maritime Museum of the Atlantic - Programmes are usually on Tuesdays at 7:30 p.m. For information phone 424-7490.

- 2 April "Canadian Wilderness Rivers" with underwater photography by Gilbert van Ryckevorsel.
- 16 April "Coastal Kayaking" with Ron Sampson and Paul Robb.

Nova Scotia Bird Society — Meets on the 4th Thursday of the month, Sept. to April, at the NSMNH, 8 p.m. Contact 852-2428 or http://cfn.cs.dal.ca/Recreation/NS-BirdSoc/nsbnmain.html. Their 'Bird Information Line', 852-CHAT, updated twice weekly, provides province-wide bird-sightings, Society news, field trips, meetings. Only some trips are listed here.

- 23 March "Better Birding Made Easy" with Fulton Lavender.
- 13 April Eastern Shore, Martinique Beach, with Ian McLaren (429-7024).
- **26 April** "Update on Roseate Terns and the Gannet Recolonization project" with Ted D'Eon, at Barrington High School, Barrington Passage, Shelburne Co. Phone Joan Czapalay at 637-2402 re more trips to Cape Sable area. This replaces the regular monthly meeting.
- 5 May Amherst Point Bird Sanctuary, with Alan Smith (506-536-0164).
- 12 May Spring arrivals, Prospect area, with Peter MacLeod and Bev Sarty (852-5209).
- 15 May Halifax County Warbler Walk with Fred Dobson (852-3042).
- 25 May Hants County Day with Margaret Clark (443-3993).

Nova Scotia Museum of Natural History — Programmes usually on Wednesdays, 7:30 p.m. Phone 424-6099 or 424-7353. 15 April? "Salamander Meander". To be held on a warm damp night between 15-30 April. Register by 14 April at 424–7353;

you will be informed of the night. **26 April** "Owl Prowl" with Fulton Lavender and Jason Taylor. Meet in the parking lot at Mount Uniacke Estate Park at 9:45 p.m. Bring a flashlight, and dress warmly.

Nova Scotia Wild Flora Society — Meets 4th Monday of the month, Sept. to April, at the NSMNH, 7:30 p.m. Contact Heather

- Drope at 423-7032 (daytime only), or http://fox.nstn.ns.ca:80/~csensen/ for more spring events.
- 25 March Marion Zinck, who has been working on the newest edition of the Museum of Natural History's book, "The Wild Flora of Nova Scotia", will tell us about it.
- 13 April Bob Guscott will lead a walk near West Lawrencetown to see Mistletoe in bloom.
- 22 April Dr. Liette Vasseur of St. Mary's University will give guidance in writing field notes.
- 27 May Patricia Chalmers will lead a walk to see wildflowers at Bayers Lake Park. Meet at the Park at 6:30 p.m. This replaces the regular monthly meeting.
- 29/30 June Carl Munden (829-3633) will lead a walk in the Economy Falls and Ward's Brook area of Colchester County. This will be an overnight camping trip.

Orchid Society of Nova Scotia — Meets 2nd Sunday of the month, September to June, at the NSMNH, 7:30 p.m. Orchids are usually on display before the meeting. Contact Jean Hartley at 443-3080 or ip-osns@cfn.cs.dal.ca.

- 13/14 April Spring Display at City Centre Atlantic; replaces usual meeting.
- 12 May Dr. Jim Goltz of New Brunswick will be the speaker.
- 9 June Annual General Meeting.

Photographic Guild of Nova Scotia — Meets 2nd Monday, &1st and 3rd Sundays of the month, at the NSMNH, 7:30 p.m. Contact Branimir Gjetvaj at 422-3407.

27 April Spring Show

Royal Astronomical Society of Canada (Halifax Chapter) — Public shows are presented at 7 p.m. on most Thursdays at the Planetarium in the Sir James Dunn Building, Dalhousie University. These last about an hour.

TIDE TABLE



		A	pril	-avr	il						May	-ma	i					J	une	-jui	n		
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7 SU DI	0425 1015 1635 2230	0.7 5.7 1.3 6.0	0.2 1.7 0.4 1.8	22 MO LU	0510 1105 1730 2310	0.8 5.5 1.8 5.4	0.2 1.7 0.5 1.6	7 TU MA	0510 1055 1735 2305	0.4 5.7 1.5 5.9	0.1 1.7 0.5 1.8	22 WE ME	0515 1120 1735 2325	1.0 5.3 1.9 5.2	0.3 1.6 0.6 1.6	7 FR VE	0655 1235 1935	0.4 5.8 1.3	0.1 1.8 0.4	22 SA SA	0600 1210 1840	1.3 5.3 1.8	0.4 1.6 0.5
8 MO LU	0520 1105 1735 2315	0.8 5.5 1.5 5.8	0.2 1.7 0.5 1.8	23 TU MA	0555 1150 1820 2355	1.1 5.2 2.0 5.1	0.3 1.6 0.6 1.6	8 WE ME	0610 1150 1845 2355	0.5 5.6 1.6 5.7	0.2 1.7 0.5 1.7	23 뜠	0555 1205 1830	1.2 5.2 2.0	0.4 1.6 0.6	8 SA SA	0045 0755 1330 2035	5.5 0.6 5.7 1.3	1.7 0.2 1.7 0.4	23 su Di	0020 0650 1250 1935	4.9 1.4 5.2 1.8	1.5 0.4 1.6 0.5
9 TU MA	0620 1155 1845	0.9 5.4 1.8	0.3 1.6 0.5	24 WE ME	0645 1235 1915		0.4 1.5 0.7	9 11 1	0715 1245 1950	0.6 5.5 1.6	0.2 1.7 0.5	24 FR VE	0010 0645 1245 1925	5.0 1.4 5.1 2.0	1.5 0.4 1.6 0.6	9 SU DI	0150 0850 1435 2135	5.2 0.8 5.6 1.2	1.6 0.2 1.7 0.4	24 MO LU	0105 0735 1335 2025	4.7 1.5 5.2 1.7	1.4 0.5 1.6 0.5
10 WE ME	0005 0725 1250 2000	5.6 1.0 5.2 1.9	1.7 0.3 1.6 0.6	25 ፲년	0040 0735 1325 2010	4.9 1.5 4.9 2.2	1.5 0.5 1.5 0.7	10 FR VE	0055 0815 1350 2055	5.4 0.7 5.4 1.6	1.6 0.2 1.6 0.5	25 SA SA	0055 0735 1335 2015	4.8 1.5 5.0 2.0	1.5 0.5 1.5 0.6	10 MO	0300 0945 1540 2230	5.0 1.0 5.6 1.0	1.5 0.3 1.7 0.3	25 TU MA	0200 0825 1430 2120	4.6 1.6 5.2 1.5	1.4 0.5 1.6 0.5
11 ፲	0105 0830 1400 2105		1.6 0.3 1.6 0.5	26 FR VE	0135 0820 1425 2100	4.7 1.6 4.8 2.1	1.4 0.5 1.5 0.6	11 SA SA	0205 0910 1505 2155		1.6 0.2 1.7 0.4	26 su Di	0150 0820 1430 2105	4.6 1.6 5.1 1.8	1.4 0.5 1.6 0.5	11 TU MA	0410 1045 1635 2330		1.5 0.3 1.7 0.2	26 we me	0305 0920 1530 2220	4.5 1.6 5.4 1.3	1.4 0.5 1.6 0.4
12 FR VE	0215 0930 1525 2210		1.6 0.3 1.6 0.5	27 SA SA	0240 0910 1525 2150	4.6 1.6 4.9 2.0	1.5	12 su Di	0320 1010 1610 2255	0.9 5.6	1.6 0.3 1.7 0.4	27 MO	0250 0910 1525 2200	5.2	1.4 0.5 1.6 0.5	12 WE ME	0510 1140 1730	5.1 1.2 5.7	1.6 0.4 1.7	27 댍	0410 1020 1630 2320	5.6	1.4 0.5 1.7 0.3
13 sa sa	0340 1030 1640 2310	5.2 0.8 5.5 1.4	1.6 0.2 1.7 0.4	28 su Di	0345 1000 1625 2240	4.6 1.6 5.1 1.8	1.4 0.5 1.6 0.5	13 MO	0435 1105 1710 2350	5.2 0.9 5.9 0.9	1.8	28 TU MA	0355 1000 1620 2255	5.4	1.4 0.5 1.6 0.4	13 TH JE	0020 0605 1235 1815	5.2	0.2 1.6 0.4 1.8	28 FR VE	0510 1125 1725	4.9 1.4 5.8	
14 su Di	0455 1130 1735	5.4 0.7 5.9	1.6 0.2 1.8	29 MO LU	0445 1045 1715 2330	1.6	1.5 0.5 1.6 0.5	14 TU MA	0535 1205 1755	5.4 0.9 6.0	1.6 0.3 1.8	29 WE ME	0455 1055 1710 2350		1.5 0.5 1.7 0.3	14 FR VE	0110 0650 1320 1855	5.3	0.2 1.6 0.4 1.8	29 SA SA	0015 0610 1225 1820	5.2	0.2 1.6 0.4 1.9
15 MO	0010 0555 1225 1825	1.0 5.7 0.6 6.2	0.3 1.7 0.2 1.9	30 TU MA	0535 1140 1755	5.0 1.4 5.7	1.5 0.4 1.7	15 WE ME	0045 0625 1255 1840	0.6 5.5 0.9 6.2	0.2 1.7 0.3 1.9	30 뀼	0545 1150 1800		1.5 0.4 1.8	15 sa sa	0150 0735 1400 1940	0.4 5.4 1.3 5.8	1.6 0.4	30 su Di	0110 0700 1320 1910	0.2 5.5 1.0 6.3	1.7 0.3
					College College	NG AC	ALL IN	2				31 FB	0040 0635 1250 1845	5.3 1.1	0.2 1.6 0.3 1.9								
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NATURAL HISTORY

The Tide Table

Who needs tide tables? Well, we all do, or should! We live by the sea, and like to walk beside it, or have picnics, or swim in it. Some of us go out in boats. So we should know when the tide will be low enough to leave a walkway round the bluffs and expose a favourite tide pool, or high enough to lift a keel over reefs and sand bars. If the tide is high when we get to the beach, we are tempted to walk or picnic too close to the dune grasses, to the detriment of bare feet and Piping Plovers' nests.

Nova Scotia tides are listed in Volumes 1 and 2 of the Ministry of Transport's tide tables. The page reproduced in the Newsletter deals with the Atlantic coast at the Port of Halifax (Volume 1, Atlantic Coast and Bay of Fundy; Volume 2 is needed for the Northumberland Shore). Tide times at other places on this coast can be approximated — they are progressively earlier at ports north of Dartmouth and later at ports south of Halifax, but Halifax times can be used roughly from Ship Harbour to Liverpool.

Tides are caused by the gravitational pull of the moon as it orbits the earth. The sun exerts a similar but smaller effect, which enhances or reduces the effect of the moon, according to whether these bodies are on the same side of the earth or not. Thus, the range of tidal activity progresses from day to day throughout the year. Tides rise and fall twice daily, about an hour later each day. They fall further and rise higher about the time of new and full moon (spring tides) and move least at the moon's quarters (neap tides); the largest spring tides of the year occur at the equinoxes (this is why Wolfville tends to be flooded in March!), and the sleepiest spring tides occur at the solstices.

The progression of tidal times and ranges can be followed through any month in the tables. The times quoted are Atlantic Standard Time, so an hour must be added during the summer. heights of high and low tides are given in both feet and metres, and relate to 'chart datum' — an international mean sea level.

- Ursula Grigg

! NEXT DEADLINE ! 5 MAY FOR-JUNE ISSUE contributions to the Editor, HFN c/o NS Museum of Natural History

Please phone 455-8160 to alert the editor