THE HALIFAX FIELD NATURALIST



No. 114 March to May, 2004



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



is incorporated under the Nova Scotia Societies Act and holds Registered Charity status with Revenue Canada. Tax-creditable receipts will be issued for individual and corporate gifts. It is an affiliate of the Canadian Nature Federation and an organisational member of the Federation of Nova Scotia Naturalists, the provincial umbrella association for naturalist groups in Nova Scotia.

OBJECTIVES are 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 are held, except for July and August, on the first Thursday of every month at 7:30 p.m. 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. All participants in HFN activities are responsible for their own safety. Everyone, member or not, is welcome to take part in field trips.

HFN ADDRESS Halifax Field Naturalists

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WEBSITE http://chebucto.ns.ca/Recreation/FieldNaturalists/fieldnat.html

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EMAIL <doug@fundymud.com> (Doug Linzey, FNSN secretary and Newsletter Editor)

WEBSITE http://chebucto.ns.ca/Environment/FNSN/hp-fnsn.html

EXECU'

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 1 September will be valid until the end of the following membership year. The regular membership year is from 1 January to 31 December. Members receive the HFN Newsletter and notices of all meetings, field trips, and special programmes. The fees are as follows:

	Family Supporting	\$15.00 per year \$20.00 per year \$25.00 per year \$ 5.00 per year
ECUTIVE 2004-2005	President	Elliott Hayes

Secretary Peter Payzant861-1607 Past President Bob McDonald443-5051

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HFN NEWS AND ANNOUNCEMENTS

NEWSLETTER DESK 🖎

Another newsletter year is coming to a close, and communication technology continues to assist us, as I am writing this item (*March 4*), in sunny BC. Well – sunny in Victoria – with crocii, camelias, lobelia, and cherry trees blooming with green grass and blue skies. Myriads of birds were seen on south Pender Island; the stars were in their glory with no city lights; and the saltwater bays were clean, clear, and surprisingly warm, reflecting the many islands and wooded hills. Vernon in the interior still had snow cover and was a little colder with no greenness or flowers as yet. Heavy snow and blizzard-like conditions prevailed on ski mountains – a reminder of all the pre-BC trip, Halifax shovelling!

Our end-of-year reports start on p. 4, and the rich harvest of Organisational Events, on p. 17. This issue has necessitated brutal editing in order to fit them all in.

Many thanks to all contributors for making *your* newsletter interesting and timely.

- Stephanie Robertson

HFN MEMORIAL AWARD &

Colin Stewart is almost a charter member of the 'Field Nats' and has served on our Board for over twenty years. For ten years he was the World Wildlife Fund Endangered Spaces Coordinator for NS. He was our one-person Conservation Committee, and has been our passionate and effective voice on countless naturalist issues.

Because of Colin, HFN labelled the trees in the Public Gardens. He established the Piping Plover Guardian Programme, the Nova Scotia Trails Federation, and the Federation of Nova Scotia Naturalists. He also ensured the establishment of 31 new NS Protected Areas.

Colin helped to develop management plans for natural areas such as McNabs and Lawlors Islands, Long Lake Provincial Park, Hemlock Ravine, and Point Pleasant Park. Recently, Colin has been advising HRM on the remediation and restoration of PPP after Hurricane Juan.

HFN is very pleased to announce the establishment of an award in his name. The award is to be called the Colin Stewart Award for Conservation in Nova Scotia, and we can think of no more worthy recipient for 2004.

- Bob McDonald

DOUGLAS H. PIMLOTT AWARD

Dr. Douglas H. Pimlott, CNF president, addressed the AGM of the Nova Scotia Bird Society with a talk entitled "Naturalists in a Changing World". After being introduced by Dr. Ian McLaren, Pimlott advised his audience of 65 members to "cultivate action, not reaction".

Good advice still, and wonderful news that a Nova Scotia Naturalist, Colin Stewart, is the recipient of this year's prestigious CNF award named for Dr. Pimlott. Colin has always supported sustaining biodiversity in the natural environment, and encouraged others to do the same.

- Joan Czapalay

19-20 JUNE, 2004 FNSN AGM 🕹

The Federation of Nova Scotia Naturalists' AGM will be at the Wandlyn Motel, in Amherst. There will be Buffet Breakfasts and Banquets; and wonderful Birding, Insect, Butterfly, Geology, and Botany trips in an area of many different habitats, rich with animals and plants! For more info, Joan Czapalay,<joancz@ns.sympatico.ca>; or go to <www.chebucto.ns.ca/Environment/FNSN/hp-fnsn.html>.

27-30 MAY, 2004 CNF AGM &

This year, the Club d'Ornithologie du Madawaska will host both the New Brunswick Federation of Naturalists' (NBFN-FNNB) and the Canadian Nature Federation's (CNF-FCN) conferences and annual general meetings together, in Edmunston, Madawaska County, NB.

The workshop roster will be: Madawaska Plants; Wild Orchids; and the Pine Marten (these in French); and Rare Plants of the Upper St. John Valley; the Acadian Littoral; and Bicknell's Thrush (in English).

The field trips include: three early-morning trips at 60-90 minutes; three diurnal for 7-8 hours; nine diurnal for 3-4 hours; and four nocturnal for 2-3 hours.

A three-day pre-conference trip (24-26 May) will explore NB's Acadian Coastline, and a post-conference hike (31 May) will be in NB's Highlands in Mount-Carleton Provincial Park.

It all sounds fabulous!

Visit http://www.umce.ca/coml for more up and coming details; or contact Pierrette Mercier, 506-735-6872, petem@nb.sympatico.ca.

- Stephanie Robertson

'ROLAND'S' EARLY EDITIONS &

The 1966-69 edition of The Flora of NS, by A.E. Roland and E.C. Smith, is still available from the Nova Scotian Institute of Science. The two-volume edition is compact, transportable, and a bargain at \$15.00!

Details are at the Nova Scotian Institute of Science website http://www.chebucto.ns.ca/Science/NSIS//
Home.html>. These, and more, are available from NSIS, c/o the Killam Library. The address: NSIS, c/o Science Services, Killam Library, Dalhousie University, Halifax, N.S., B3H 4H8; phone 902-494-1101; email <slongard@is.dal.ca>.

- Colin Stewart

NEW AND RETURNING



Michael Day
Ralph Fleming
Mike James
Diane LaRue
Kathleen Martin
Melanie Spence
Sue Stuart
Bob Taylor
Robert Warrior

SPECIAL REPORTS

FROM THE PRESIDENT 🖎

It is customary at HFNs Annual General Meeting for the President to summarise some of the activities in which the Society has been involved over the past year, and also to thank those who have made significant contributions to the Society. It is a pleasure for me to do that.

Our most obvious activities revolve around our monthly meetings and field trips, and our newsletter, The Halifax Field Naturalist. The Programme Committee team, which includes Wendy McDonald, Jennifer MacKeigan, and Burkhard and Ingrid Plache, arranged a fascinating variety of field trips ranging from the midwinter Sewer Stroll to the mid-summer Butterfly Trips. At Cole Harbour, we were able to survey the damage caused by Hurricane Juan less than a week after the event. This latter trip was followed by a dinner catered by the ladies of the Cole Harbour Heritage Farm Museum. The pre-Christmas social held in conjunction with the regular December meeting is now a most welcome annual tradition. I hope that this continues.

The Newsletter Committee – Ursula Grigg, Stephanie Robertson, and Patricia Chalmers – continues to do a fine job in the production of our high-quality periodical. Ursula, our editor for many years, has decided to step down and Stephanie has taken over the editorial duties on a temporary basis as well as continuing to do the layout. Fortunately, we now have Stephanie at home here in Halifax and no longer have to deal with the uncertainties of electronic file transfers between here and Bangladesh. However, the Newsletter Committee needs at least one and perhaps two volunteers to continue with its work. Bernice Moores continues with the task of newsletter distribution.

I thank all members of the Programme and Newsletter Committees for their behind-the-scenes hard work over the past year.

Janet Dalton, our able Treasurer, keeps the books, reports regularly to the Board and generally maintains our good financial order. Thankfully Janet has agreed to continue to serve for another year. Suzanne Borkowski, our Secretary, records and distributes minutes of the Board meetings and the Annual General meeting and generally keeps us on track during executive meetings. Suzanne is stepping down as Secretary but has been working with Colin Stewart for several months now on Conservation issues. Suzanne has agreed to continue to work in this capacity for the next year. Many thanks, Janet and Suzanne.

Judi Hayes has served as our membership secretary for the past year and communicates regularly with Doug Linzey who continues to produce the labels for the newsletter. Unfortunately, as many societies like us are experiencing, our membership numbers seem to be in decline. I am confident that the new Board will address this problem.

As many of you will know, Voluntary Planning established a Task Force to examine the use of Off-Highway Vehicles (OHVs) in Nova Scotia. Over 1,400 Nova Scotians attended public meetings and many offered their thoughts both orally and in written submissions.

I prepared a submission on behalf of HFN *(see the Winter 2003/04 issue)*. The VP Task Force has now released its preliminary report and we all have until March 15 to send in our comments. Let's hope that the Province will act on the 47 recommendations concerning the operation of these vehicles.

HFN was well represented at the Federation of Nova Scotia Naturalists Annual General Meeting and Conference held in June in Sydney. We set up our new display unit and shared our activities with others. Although I was not representing HFN, I also attended the annual Canadian Nature Federation Conference in Medicine Hat, Alberta. As always, this conference offered a packed schedule of events, speakers, field trips, cultural activities, and a banquet. There we learned that the 2004 CNF Conference will be held in late May in Edmundston, Madawaska County, in northern New Brunswick.

Thanks to Doug Linzey, HFN was represented at the inaugural meeting of the Atlantic Nature Network held in November in Memramcook, NB. Financially supported by a grant from the Metcalf Foundation, and organised jointly by the CNF and the Nature Federations of NS and NB, the Network aims to empower naturalist groups to achieve their goals on a local level. Doug has written a report on this meeting (see the Winter 2003/04 issue). A second meeting is in the planning stages. We look forward to continuing to participate in this new venture.

As many members will recall, in last year's President's Report, I mentioned that the Society had made a substantial financial contribution to the Nova Scotia Nature Trust (NSNT). This covered some of the legal and survey costs associated with the transfer of a piece of relatively undisturbed woodland in Purcells Cove from the Field family to the Trust. Although there was some rough road to cover which no one was able to anticipate, the title transfer is now complete. NSNT will be hosting a celebration in the spring and has asked HFN to participate. NSNT members were able to learn about the history of the property and our involvement in the deed transfer through an article in their newsletter. We have received permission to reprint that article, describing the Capt. Arnell property - as it will be called (see p. 10). We plan to arrange an HFN field trip to visit the property this spring.

Some of us have developed an interest in flying creatures other than birds and butterflies. Dragonflies and damselflies, collectively called the odonates, are fascinating insects and their study can provide valuable information on the health of the aquatic environment. Following our interesting and informative lecture and field trip around the Frog Pond with local expert Paul Brunelle, HFN has decided to publish a checklist of the odonates of Nova Scotia which we hope will be ready for the next field season. Paul has helped us greatly with the species listing and flight seasons and Peter and Linda Payzant are formatting the checklist, which will resemble that for the butterflies, also prepared by the Payzants and Stephanie Robertson on behalf of HFN.

I would like to acknowledge noteworthy contributions that have been made by two of our members, both of whom serve on the Board of Directors.













As I mentioned previously, Ursula Grigg has stepped down after many years of service as editor of the Naturalist. I have read newsletters of many other societies similar to ours and can say in all honesty that ours is second to none! I feel that this excellence is due in large part to Ursula's unique editorial style. Of course, Ursula has also served on the Board as President and Past-President, and currently serves as the HFN representative on the Federation board. To acknowledge Ursula's loyal service in many capacities, and to express our thanks to her, we presented her with a copy of The New Field Book of Freshwater Life, by Elsie B. Klots, and offered her a life membership in the Society, with all due rights and privileges.

I also wish to thank Colin Stewart for all he has done on behalf of HFN and, more broadly, for all people of Nova Scotia. Colin is almost a charter member of the Society and has served on the Board for over twenty years! For many of those years, Colin was our oneperson Conservation Committee. In his role as HFN representative, Colin worked towards getting signage into the Public Gardens. He helped to establish the Piping Plover Guardian Program (he has a Certificate of Appreciation from the Eastern Canadian Piping Plover Recovery team). He worked towards the establishment of the Nova Scotia Trails Federation through the Trails for Tomorrow Conference, was involved in the formation of the Federation of Nova Scotia Naturalists, and for ten years served as the World Wildlife Fund Endangered Spaces Coordinator for Nova Scotia. This latter position helped ensure the establishment of Nova Scotia's 31 new Protected Areas, including Jim Campbell Barrens, on which Colin worked particularly hard. Colin is clearly passionate about conserving and protecting our environment for future generations. He has been involved in developing management plans for several parks and other natural areas, and is recognised as a spokesperson for the naturalist community in dealings with municipal and provincial governments. Some of the natural areas in which he has provided input are McNabs (he has been designated a 'Special friend' of McNabs), and Lawlors Island, Long Lake Provincial Park, Hemlock Ravine (Colin is President of the Friends of Hemlock Ravine) and Point Pleasant Park. Hurricane Juan heavily impacted all of these areas, and Colin has been retained by HRM to provide recommendations on how the remediation and restoration of PPP should be handled. Colin has been the voice of HFN on countless issues and he has presented the naturalists' point of view passionately and effectively. For Colin's many years of dedicated service to HFN and all naturalists in Nova Scotia, HFN has established an award in his name - the Colin Stewart Award for Conservation in Nova Scotia, and I can think of no more worthy recipient for 2004.

In conclusion, as I mentioned in last year's report, I am stepping down as President after serving for three years in this capacity. It has been an honour and a pleasure to serve HFN in this way and I thank all Board members for their support during my tenure. It has been a pleasure to work with you all. Of course, I will continue to serve on the Board as Past-President, and I will endeavour to support the incoming President in any way Bob McDonald I can. Thank you!

MEMBERSHIP &

The total memberships continue a downward trend in 2003, with a 7% drop in overall numbers from 2002.

I would encourage present members to invite friends to attend meetings and field trips and also share the newsletter to promote growth. I also feel that we should continue the practise of giving complementary memberships to programme speakers.

The following tables show the membership numbers for the nast four years:

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	New	Indiv	Fam	Supp	Total
2000	13	90	40	15	145
2001	15	86	39	14	139
2002	21	74	39	15	128
2002	15	73	36	10	119

Thank you to Bob and the HFN executive for their support, especially our database person Doug Linzey; and best wishes to the new board and to Elizabeth Keizer who will be our new membership secretary.

 Judi Hayes Membership



PROGRAMME &

Last year a new Programme Committee took over from the very capable hands of Pat Leader and Jean Sawyer. Our term began with cancellation of a field trip due to inclement weather, and later on, postponements of a talk due to Hurricane Juan's aftermath, and of a field trip due to massive amounts of snow received in late February. Perhaps a talk on climate change would be in order some time soon!

Notwithstanding, we were still able to offer a wide range of talks and field trips. Talks covered plant and animal life, beaches and waterfalls, and how not to get lost when we're out and about enjoying the aforementioned. Trips ranged far and wide and two were out of this world (the astronomy trips). We paddled rivers, followed butterflies and dragonflies, picked cranberries, strolled HRM sewer outfalls (always a popular trip), and hiked through forests. We also hiked the Cole Harbour Trail which was followed with a delicious meal at the old Heritage Farmhouse. We once again combined December's talk with a Social which was very well attended.

One of the ongoing challenges the Programme Committee faces is finding locations and topics that are new and interesting to HFN. This year, a survey was distributed to HFN members and some of you have provided suggestions for trips and talks. We are very grateful for your input and will be exploring those suggestions for future activities. We are always receptive to your comments and suggestions, so please don't hesitate to approach any one of us.

We regret that the Programme Committee says goodbye to Wendy McDonald. Wendy's contribution was invaluable; she will be missed and we wish her well in her new endeavours. On the bright side, Ann-Noreen Norton will be joining us, and the Programme Committee is looking forward to providing interesting and varied talks and trips in the upcoming year.

- Jennifer MacKeigan, Wendy McDonald, Burkhard Plache, Ingrid Plache





Halifax Field Naturalists Financial Statement (Balance Sheet) As At December 31, 2003

	2003	2003	2002	2002	2001	2001
Assets						
Cash						
Royal		\$3,593		\$2,981		\$3,352
				\$427		\$693
Accounts Receivable and Accrue	d Income	\$473		\$59		\$303
Inventories and Prepaids		\$832		\$829		\$1,031
Investments		\$9,787		\$9,718		\$14,154
Fixed Assets				\$269		\$0
		\$14,685		\$14,284		\$19,534
Liabilities and Surplus						
Accounts Payable						
General		\$101		\$50		\$50
FNSN		\$540		\$290		\$295
Surplus						
Restricted		\$5,787		\$5,673		\$10,196
Unrestricted		\$8,257		\$8,271		\$8,993
	\$14,044		\$13,944		\$19,189	
		\$14,685		\$14,284		\$19,534

Halifax Field Naturalists Statement of Income and Surplus Year Ended December 31, 2003

	2003	2002	2001	2000
	Actual	Actual	Actual	Actual
Revenues				
Membership	\$1,837	\$1,925	\$2,325	\$2,585
Product Sales	\$3	\$18	\$95	\$8
GIC	\$0	\$4,599	\$0	\$0
Interest	\$37	\$202	\$343	\$517
Donations	\$530	\$50	\$235	\$100
	\$2,407	\$6,794	\$2,998	\$3,210
Expenses				
Field Trips	\$15	\$0	\$0	\$0
Special Projects	\$0	\$269	\$0	\$0
Socials	\$21	\$21	\$0	\$0
Grants/Donations	\$125	\$5,225	\$175	\$0
Insurance	\$175	\$85	\$85	\$75
Meetings	\$278	\$229	\$308	\$137
Memberships	\$485	\$463	\$305	\$380
Miscellaneous	\$0	\$204	\$0	\$148
Newsletters				
Postage	\$611	\$421	\$501	\$618
Production	\$687	\$551	\$409	\$495
Office Supplies & Expenses	\$23	\$47	\$183	\$87
	\$2,421	\$7,515	\$1,966	\$1,940
Net Income	- \$14	- \$722	\$1,032	\$1,270
Surplus, beginning of year	\$8,271	\$8,993	\$7,961	\$6,692
Surplus, end of year	\$8,257	\$8,271	\$8,993	\$7,961

Janet Dalton
 Treasurer



YEAR-END REPORT

Colin Stewart was involved primarily with three committees over the past year – McNab's and Lawlor Islands Management Plan Committee; Long Lake Provincial Park Management Plan Committee; and Point Pleasant Park Restoration Committee, on which Colin served as a naturalist consultant to HRM.

Although McNab's and Lawlor Islands Provincial Park received official Park designation in 2002, work on the management plan continued. A draft was submitted to the Province in 2003, was approved, and then returned to the committee for finalisation. Details such as how much camping should be allowed, what facilities and services should be offered, and how much public access should be granted are typical of the issues being thrashed out by this committee.

Long Lake Provincial Park Association is in the beginning stages of drafting a management plan. This park is right in the city and easily accessible from Spryfield and St. Margaret's Bay Road. It is heavily used and needs to be properly managed and protected so that future generations can enjoy it as well. Public input and comments are welcome; please contact Suzanne Borkowski at <sborkowski@hfx.eastlink.ca>.

The restoration of Point Pleasant Park is well underway. Asplundh Tree Services is meeting the challenge of removing fallen trees and debris without damaging healthy ones, particularly seedlings. Peter Bigelow of HRM Parks says they're hoping to have the Park open to the public by June of this year.



POINT PLEASANT PARK UPDATE

On January 25th, a public session was held at Point Pleasant Park which I attended on behalf of the Halifax Field Naturalists.

The city has hired an archaeological firm, Black Spruce Heritage Services, and a forestry firm, Forest Resource Consultants, to ensure these interests are well represented in the Park restoration process. They have also hired Asplundh Tree Service Inc. to carry out the actual work. The immediate goals are to reduce the fire hazard and to get the Park open by late spring/early summer. The biggest concern is to save small, healthy, growing trees.

Steve Christian of Asplundh Tree Service Inc. states that much of the work will be done by men with chainsaws. Healthy trees will not be cut down to access fallen ones. This approach will take longer, of course, but it's the only way to minimise damage to

new growth. Trees will be lifted out by skyhooks. Most debris will be removed, but fallen trees lying on the ground will be allowed to deteriorate naturally, a process that will provide nutrients for the soil. Wood chips will be blown back from the road as far as fifty feet to scatter lightly in the underbrush, thus avoiding a dense pile-up which would interfere with regeneration.

The trees that are removed will be trucked to Burnside in Dartmouth where they will be inspected by the Canadian Food Inspection Agency. Those that don't pass will be incinerated; those that do pass will be sold. Money gleaned from sale of lumber will be put back into the restoration project.

Suggestions were made and advice offered as to what should be planted in the Park. All ideas were welcomed, but as yet, no decisions have been made, except – that no introduced species will be planted.

Assessments and planning are still ongoing. "The hurricane is not 'over' – it won't be over for at least thirty-six months." says Peter Bigelow of HRM.

- Suzanne M. Borkowski



This past year's production of the four quarterly issues of The Halifax Field Naturalist has been relatively stress-free, and it seems the transition has been a smooth one from having an experienced, able, and well-appreciated Editor-in-Chief to a situation whereby there is only a Production Editor who consults with the previous EIC, and who will continue to edit – now in a full-time capacity – for layout, grammar, space, and content, as previously.

So far, there have been no complaints!

In any printed production, whether it be professional or volunteer, there will always be contingent glitches, mix-ups, and last minute changes due to timing, technical difficulties within the process (including even within the printing house itself), or other unexpected events. It is how these 'wrinkles' are dealt with that allows our Newsletter to continue to be produced with such success, regardless of what goes on behind the scenes.

We have been very fortunate to have a timely abundance of articles and items for our magazine this year, and I thank everyone for their wonderful submissions and the hard work that went into them.

We have our steadfast and reliable contributors, such as Patricia Chalmers, who, through her interesting and lively Almanac, allows all of us to see at a glance the entire Nova Scotia roster of natural history programmes for each quarter. It also shows us what to expect regarding up-and-coming natural events such as moon phases, meteor showers, and sunrise and sunset times.

We also have the reliable contribution of our field trips and talks from the programme committee, Jennifer MacKeigan, Wendy McDonald, Burkhard Plache, and Ingrid Plache, for our quarterly programme insert. Also, our Membership Chairman, Judi Hayes, always came through in time with the list of new and/or returning members.

We also have our stalwart and reliable field trip write-up submittors, such as Peter Payzant, who always sends his two Butterfly Field Trip Reports in almost before the trips are over! We've had excellent conservation reports, from Colin Stewart, our Conservation chief, and others as well, with timely conservation news.

As for Reports, we had our first HRM Observation Results this year on the North American Migration Count by Bob McDonald; an excellent and important report by Doug Linzey on the Atlantic Naturalist Network (Doug continues to produce our newsletter mailing labels); and a report by Bob McDonald to the Voluntary Planning Task Force looking into off-highway vehicle use.

We've also had some excellent special and interesting articles such as those on oceanic coccolithophore blooms and the Lincoln Brower Monarch lectures by the Payzants. And all the many, many submissions by others of field trips, talks, and items of special note for naturalists increase the relevance and timeliness of our newsletter.

This is your newsletter, and your club. The quality of The Halifax Field Naturalist reflects both the excellence of our field trips and our programmes, and our members' interests, submissions, reports, and articles.

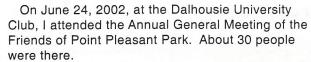
The Halifax Field Naturalist is the place for you to report on what you think is important in the field of natural history and related issues. Keep those wonderful submissions coming!

- Stephanie Robertson



POINT PLEASANT PARK – IMPORTANT INSECT FINDS

(This report was written up in the summer of last year, before Hurricane Juan had devastated Point Pleasant Park. Only this spring will tell what has survived in the form of habitats and microhabitats, and which, if any, pre-hurricane beetles and insects will still be there. Fortunately, because of Chris Majka's excellent work, there is a broad database of knowledge on which to base any post-hurricane collection data. – S. Robertson).



After a not-too-painful AGM, we all heard and watched an extremely enthusiastic and interesting presentation by entomologist Chris Majka on beetles in general and then beetles in the saproxylic communities (i.e. decaying wood) in and around Point Pleasant Park (PPP) in Halifax.

Generally, foresters and silviculturists are very uninterested in dead and decaying wood, calling such material 'coarse, woody debris'. This coarse and woody debris varies from 60 to 140 kg per hectare in natural forests as compared to little or none in 'managed', or 'manicured' forests. Chris talked about the history of removing wood from PPP, going back to the 1880s. He also said that the park is big enough to show quite a lot of variation in both habitats and amounts of standing and lying dead wood.

In three years of field work in the area, Chris has already identified over 500 species of beetles from 55 families. Two of these species are new for North America, and another two are 'new to science' (i.e., they have never before been described, nor named)! About 18% of the beetles are introduced species — Dave McCorquodale, an entomologist at the University College of Cape Breton, estimates that 15-18% of beetles in Cape Breton are introduced species.

Chris showed us quite good photos of a rogue's gallery of Bark Beetles (Scolytidae), to begin his very diverse bestiary of beetles. The habitat of the small to tiny Bark Beetles is the living cambium layer between the inner bark and the outermost sapwood. The Scolytid tunnels that the Bark Beetles make there are also inhabited by an interesting group of Rove Beetles (Staphylinidae). These are active all winter and feed on fungi, which are often associated with and carried by Bark Beetles, particularly the Ambrosia Beetles.

The first Bark Beetle shown was the very common Pine Engraver Beetle. The Pine Ambrosia Beetle farms fungi and carries the spores with it, in order to infect the next tree to receive its eggs and galleries (tunnels). The Striped Ambrosia Beetle is another fungus-carrier. The Four-eyed Bark Beetle, *Polygraphus rufipennis*, has each eye divided into two parts (Chris doesn't know why), like aqautic whirligig beetles; their eyes look above and below the water surface. Also shown was a tiny kind of bark beetle that begins a deterioration process by entering the bark of twigs.

Next, Chris considered the Cerambycidae, the Long-horned Wood-boring Beetles, which are often larger than Bark Beetles, usually have conspicuously longer antennae, and have larger tunnels. He has found 95 species (?) in and around the Park and Halifax, and not many more species are known for all of Nova Scotia.

First he showed our 'friend', the Brown Spruce Long-horned Beetle, *Tetropium fuscum*, then two







closely related native Tetropiums, *T. cinnamopterum* and *T. schwartzianum*. Next were two common species, the Pine Stump Borer, *Asemum striatum*, and the Ribbed Pine Borer, *Rhagium inquisitor*, – up to 21 mm long!

He showed the genus *Xylotrichus* and said it is attracted to terpines and oleoresins, chemicals that are toxic to most insects and that are associated with the decay of wood. These chemicals are the tree's second line of defense after the 'gum' or resin exudation tactic. *Xylotrichus* is one of the genera which show wasp-like markings dorsally on both the pronotum and the elytra (wing covers).

The Chestnut Bark Borer is a beautiful and large beetle, and played a role in the demise of American Chestnut trees. Both its egg-laying holes in the bark, and the emergence tunnels by the hatched adults, provided entry-routes for the spores of the Chestnut Blight Fungus, which was accidentally introduced from Europe (like the BSLB!).

He also showed a Flower Longhorn Beetle, *Evodinus monticola*; a Red-shouldered Pine Borer; and a *Clytus* sp. The latter has bold yellow on blackish markings and very probably mimics wasps.

The next group of saproxylic beetles were the family Buprestidae – the Metallic Wood-boring Beetles. These tend to be medium-sized, of a shiny metallic colour, with tapered elytra. This family of beetles feeds not on the cambium but on the outer part of the sapwood. An example of this is the Hemlock Borer. Also shown was a *Chrysobothris*, which is probably the same genus that Stephanie Robertson and I saw associated with a pile of bait logs in the summer of 2001.

This ended the main groups of bark- and woodboring beetles, and he also showed us a False Darkling Beetle that lives inside bracket fungi on trees or logs.

Then – the Weevils — a *Hylobius* species, the Nut Leaf Weevil; a Pine Flower Snout Weevil which is very primitive – it lives inside of what will become the female cone of a conifer; and a Cylindrical Root Weevil – it can live in very dry wood and survive in driftwood for long periods, thus it gets to islands all over the world!

Next, the Russian Leather Beetle which lives in decaying wood.

Then he showed us Click Beetles versus False Click Beetles — both have the hinge and spring mechanism which is apparently an adaptation to help them right themselves after a fall (which they do and then lie still when disturbed) — both can be associated with decaying materials.

The Two-tubed Flat Bark Beetle is flattened to live between bark and sapwood, and is predaceous on other insects. Another very tiny beetle is very flattened and sucks sap of freshly fallen trees.

More specimens shown were Rhizophagid Beetles, *Pythoniger* sp.; the Ant-like Stone Beetle which preys upon Oribatid mites; the Rove Beetles — a huge

group (Staphylinidae) and mostly predaceous; and other examples such as the Devil's Coachman, which is big, black and very long and skinny. It feeds on creatures that are in Bark Beetle tunnels. There were also very obscure Rove Beetles — very little is known of these, and one *Leptusa* species which is 'new to science'.

There were minute Tree Fungus Beetles which live only in bracket fungi and are usually quite specific, e.g. one lives only in Birch Polypores; Clerid or Checkered Beetles (Cleridae) which are very important as predators on bark- and wood-boring beetles; 4-5 species of *Philobatus*, (all more 'new' species for Nova Scotia); Hister Beetles which live in the burrows of Bark Beetles; Carabids or Ground Beetles of which some are found under tree bark after the boring beetles are gone. This was the end of the 'rogue's gallery' of beetles!

Chris then showed Braconid Wasps, voracious predators and/or parasites on the various bark- and wood-boring beetle groups. These wasps have very sensitive hearing in their legs and feet for sensing their larval prey under the bark. This shows the wasps where to lay their eggs.

There were a few examples of Ichneumon Wasps, also voracious predators and/or parasites on the various bark- and wood-boring beetle groups; these culminated with the giant Ichneumon *Megarhyssa lunator*, which specifically preys upon and parasitises the large Wood-boring Wasps, or Horntails. These horntails feed on wood itself, rather than on fungi or other insects, and often bore quite deeply into the sapwood. We were shown also some Carpenter Ants. They *don't* eat wood, and are not 'termites'.

Flat Bugs, (Hemiptera), live under bark, and feed upon the moisture and exudations associated with fungi. Also shown were Sowbugs, Millipedes, Oribatid Mites, and Centipedes – the latter are predators.

The presentation ended with photos of bait logs, dead wood, and a manicured section of the park with no dead wood and very little undergrowth. He acknowledged the support of Andrew Hebda from the Museum of Natural History.

Chris Majka was incredibly enthusiastic (and encyclopædic) throughout his presentation, and he convinced us that each species of this long list is truly fascinating as regards to what is known about how it fits into the communities associated with decaying wood.

- Jim Wolford









SPECIAL ARTICLES

PROTECTED - A BEAUTIFUL,



(Adapted with permission from an article in the Nova Scotia Nature Trust Newsletter)

As most of you will know, HFN earned some money from hosting the Canadian Natural Federation Conference eight years ago. Last year the HFN Executive finally decided to use this money for the protection of land.

First we looked at the Nature Conservancy of Canada (NCC), but the scope of NCC's conservation efforts was not well-suited to HFN's objectives. Since our primary concern was to preserve land within and around HRM, we redirected our search to local conservation groups such as the Nova Scotia Nature Trust (NSNT). We wanted to aid in protecting land that was freely donated, and also to be part of a project that would allow us to have some ongoing stewardship.

We made a donation of \$5,000.00, which aided in the surveying and evaluation of the Captain Arnell Conservation Lands for its acquisition. We have plans for ongoing projects there, including a bioinventory to be carried out by some of our local affiliated experts.

President Bob MacDonald was impressed that the Captain Arnell Conservation Lands was "still unspoiled, relatively wild, and had only been walked in", making it a prime candidate for a bio-inventory of its fauna and flora.

With HFN's generous help, therefore, NSNT is pleased to announce the finalisation of the protection of the Captain Arnell Conservation Lands in Purcell's Cove. The twelve-hectare property features frontage on two lakes, exposed granite outcrops, Jack Pine forest, and uncommon flora – including the threatened Lady-slipper Orchid.

The property is especially unique as it is a relatively large, protected green space within the Halifax Regional Municipality. Securement of this property is also particularly notable because it required an agreement from seven brothers!

Roger, Nigel, Kenneth, Peter, Rob, Chris, and Nick Field came to consensus on donating the land to the NSNT for preservation. Their decision to protect it was influenced by their family heritage and their love of the land, and all seven brothers wanted it to remain undeveloped. From a more sentimental point of view, the land which they wished to preserve is attached to their family history as well as to their childhood memories.

Since each of the seven brothers has children, they were concerned that if the land was divided amongst them, there would be little chance of similar consensus being reached regarding land management in the future. This motivated them to make a decision for conservation now.

Purcell's Pond is also on the property. It has been a popular swimming hole for the family, and the Field brothers wanted to ensure that the pond be kept pristine for future generations to enjoy. They requested that the protected property be named after their great grandfather, who had originally bought the land that they have so enjoyed.

This great grandfather was a sea captain named Captain Arnell. He already had a cottage in Purcell's Cove, and subsequently bought more land in the 1920's when land was relatively inexpensive. That summer, he and Ben Purcell spent their time marking the boundary of the land with iron rods drilled into the exposed granite. Their formidable amount of work shows that even then they thought the land was special and should be protected.

After researching other conservation organisations, the Field brothers decided that NSNT was the best organisation for their land's conservation. The NSNT combined their efforts with HFN to procure the property. It extends from the edge of Flat Lake in Spryfield, to 200 feet from the Purcell's Cove Road along the coast. One of the brothers described the land as being a "beautiful, magical place". Most important, the unique drainage characteristics of the property are essential to preserve, since they maintain the ecological integrity and quality of the Flat Lake watershed.

Pockets of mountain laurel and blueberries can be spotted in amongst this wonderful property's stands of Jack Pine. Numerous species of songbirds and waterfowl frequent the area, and there are breathtaking views of Halifax Harbour from atop barren granite outcroppings.

We congratulate and thank the Field family for their contribution to the preservation of a wild and natural area of Nova Scotia. We would also like to thank the contribution of the Halifax Field Naturalists in the acquisition of this valued property.

This successful land protection by the Fields, NSNT, and HFN inspires hope and goodwill for the future of conservation in Nova Scotia.



TALKS

THREE DESERTS...

4 DEC.

Colin Stewart and his wife Betty took many beautiful and unique slides when they travelled to the Southwestern United States last year where they visited three deserts – the Mojave, the Sonora, and the Great Basin; – two holes in the ground – the Grand Canyon, and Death Valley; and a pair of zoos.

Deserts evoke images of sand dunes and endless miles of blowing, burning sand. However, the deserts of the American Southwest paint an entirely different picture. They're rocky, covered in places with vegetation, and cold! These outcrops and cliffs are banded with shades of red and brown, indicating how they were formed over millions and millions of years. The vegetation, though sparse and scrubby in places, is covered in season with diversely beautiful flowers. The weather, which can be fairly hot, is more often cool to downright chilly. Occasionally, these deserts are even covered with snow!

The Grand Canyon is one of the most famous 'holes' in the world. It's 277 miles long, ten miles wide, and one mile deep from its rim down to the Colorado River which winds along its floor, or base.

Death Valley, in California, is a very different 'hole' in the ground. This 130 mile trough lies 282 feet below sea level! A large lake occupied this valley in glacial times, but now it is dry and hot with an average rainfall of two inches per year.

The two zoos referred to by Colin and Betty in the title of this talk were the San Diego Zoo, and a 'human' zoo – the countless people thronging the streets outside their hotel!



Time and the tides take a toll on our shorelines, and in visits to a favourite beach, over a number of years, we will observe many changes.

Robert B. Taylor, a coastal geomorphologist with Natural Resources Canada (Geological Survey of Canada) spoke to us about "how a beach keeps its figure: redistributing, reshaping, and/or relocating; the three R's of beach recycling." Some people may already have met Bob and his research interests in the pages of Silver Donald Cameron's fine book, The Living Beach (1998).

A beach is a dynamic environment. Its sediment supply and external forces will determine its shape, stability, and vegetation. And the sediments which make up a beach come from various sources.

Some sand is below the sea in shallow water off the coast. As the ocean rises, those old, sunken shores are pushing inward, and they "feed beaches". Some sand comes from the surrounding rock as erosion, and some comes out of the soil, where it is already a component, as glacial till. Sediment supply is not unlimited, but it is crucial for beach formation; how this supply is anchored to the beach varies.

Dune vegetation and headlands both help to anchor beaches, and shore erosion is a natural process. The role of dune vegetation in retaining sediment, (such as Cordgrass and Marram Grass), is generally appreciated, and dunes are often protected by boardwalks.

But the crucial role of our headlands in beach stability is less widely understood. This has become an important issue as more and more people want to live along the coast. People love being close to the water, and they may rally to protect our beaches. However, we have allowed what Bob Taylor termed the "mansionisation" of the headlands along our shores. Often when a headland is built upon, it is armoured with protective barriers or seawalls. Then the natural circulation of the sediments is impaired, and when the sands of the beach are washed away, they can't be replenished from other sources.

Our beaches are subject to many natural long-term pressures: rising sea levels; the grinding and scouring action of sea ice, especially in the Gulf of St. Lawrence; Atlantic Ocean winds; dramatic tides such as occur in the Bay of Fundy; and extraordinary weather events, such as Hurricane Hortense and Hurricane Juan. Bob has been particularly interested in the effects of Hurricane Hortense, and how beaches have recovered from that damage.

He showed slides and discussed the changing shape of many familiar beaches, and in the question and answer period he answered questions about some audience favourites.

He left us with a dramatic example of how beaches both change, and yet persist. Silver Sands Beach, at Cow Bay, has been a low gravel barrier beach for many years. During big storms such beaches are easily overwashed by waves. After Hurricane Juan, the longshore crest was flattened, and the beach was pushed inland between two and 23 metres. It was also breached in several places, and some treetrunks were exposed where they once grew centuries ago when the water levels were lower. Yet, in the last three months, frequent observations reveal that the beach is regaining its old profile, and is moving seaward again.

Byron was getting at something when he wrote:

"Roll on, thou deep and dark blue Ocean – roll Ten thousand fleets sweep over thee in vain Man marks the earth with ruin – his control Stops with the shore."

- Patricia L. Chalmers

LEATHERBACKS

5 FEB.

For a species that is 150 million years old, there are still many mysteries surrounding the life cycle of leatherback turtles. In a very lively presentation, Kathleen Martin, Communications Director of the Nova Scotia Leatherback Turtle Working Group, identified some of the things known and unknown about these mysterious creatures of the sea.

The leatherback turtle, *Dermochelys coriaca*, is the world's largest living reptile and is in a family all its own. It is the only sea turtle without a hard shell and scales. Its bluish-black carapace, containing seven ridges, consists of a leathery skin under which there is a mosaic of bones and oily connective tissue. This bone structure allows the carapace to be semi-flexible.

It grows up to two metres in length and weighs over 1,000 pounds, although the record-holder weighed 2,026 pounds!

The turtles nest on beaches every 2-3 years, usually at night, digging holes in the sand to lay their eggs. While in the process of laying their eggs, they fall into a trance-like state and are seemingly oblivious of their surroundings. Only the females return to land after hatching, and only for nesting purposes.

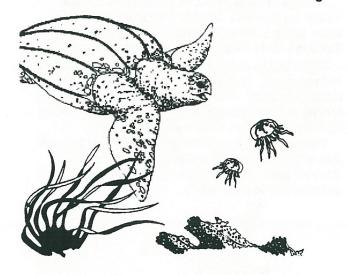
The turtles' diet consists almost entirely of jellyfish. They have no teeth, but instead, spines in their throat and esophageal tract. Kathleen had a sample of these large spines, an amazing sight. The turtles travel to Canadian waters in summer because of the jellyfish and in winter they return to warmer waters to nest. This return migration route can total 15,000 km and, at an approximate travel speed of seven kilometres per hour, takes nine months (August to June). They are able to travel safely in our cold waters because their veins and arteries are bundled together and this helps them to maintain body temperature.

The leatherback turtle is highly endangered, prey to egg poachers, poachers of nesting females, propellor strikes, entanglements, and plastic garbage which it mistakes for food. They are very difficult to study and can't be kept in captivity because they can't swim backwards. Their lifespan is unknown, age at maturity is unknown, and habitat of juveniles is unknown.

The Nova Scotia Leatherback Turtle Working Group is a collaborative marine turtle conservation initiative involving volunteer commercial fishermen, tour boat operators, naturalists, coastal community members, and scientists.

Kathleen emphasised the valuable contribution made by local fishermen. Their sightings revealed that leatherback turtles are regular visitors to our eastern Canadian waters. In 1999, the Group's members became the first in the world to satellite-tag a leatherback turtle at sea. To check out the Group's website to follow the sightings of tagged turtles, for further information about the Group, and for information on how to report sea turtle sightings, go to <www.seaturtle.ca>.

- Jennifer McKeigan



FIELD TRIPS

SEWER STROLL

DATE: January 24, 2003

PLACE: Various locations around Halifax Harbour

WEATHER: Clear, with a high of -12°C INTERPRETERS: Peter and Linda Payzant

PARTICIPANTS: 23

Once again, we had reasonably good weather for our annual 'Sewer Stroll', if you don't object to temperatures well below normal and high wind chill factors! At least it was sunny, and there were a couple of welcome opportunities to warm up during the day.

At our starting point in Eastern Passage, we had a good look at a very close Long-Tailed Duck, as well as several Common Loons in their drab (and flightless) winter plumage. Several participants took a detour to Hartlen Point in search of some reported Eastern Meadowlarks, without success.

We stopped at the Woodside Community Centre for a first look at the inner harbour, and there were lots of gulls, including our first Black-Headed Gulls of the day. We also had reasonable views of a Red-Breasted Merganser, and heard a flock of House Sparrows, a species which may be in decline in Nova Scotia. Dartmouth Cove was well iced in, and there were few birds close enough to see well, but there was a Harbour Seal hauled out on the ice more or less at our feet, apparently impervious to the wind and cold. Lots of photos were taken.

We took a brief break for refreshment and warmth at the market at the ferry terminal. Here, a few hardy souls ventured out to have a look at the dense group of gulls foraging in the sewer outfall nearby, before being driven back indoors by the wind and cold. There was another Harbour Seal here, hauled out on a small floating wharf.

Then, we all trooped uphill to Pat McKay's house to have a look at some warblers which were coming to her feeders – a Palm Warbler and two Pine Warblers, which she was feeding mealworms. A few of us saw the Palm Warbler, and everyone had a very satisfying look at one of the Pine Warblers. As well, we all got to see larval, pupal, and adult stages of the mealworms – our only insect of the trip!

Although Sullivan's Pond is famous for its waterfowl, it's also a great place to look for Northern Cardinals, and with a little patience we were soon rewarded with great looks at both the male and female. Among the hundreds of Black Ducks and Mallards we also saw a Snow Goose and a Green-Winged Teal. The Northern Pintails reported earlier somehow eluded us, although other observers saw them the same day.

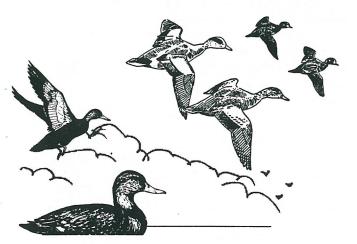
Tufts Cove rewarded us with the first Common Goldeneye of the day. Mixed in were a few of their rarer cousins, the Barrows Goldeneye, easily distinguished by their tear-drop shaped facial patches. We also had several American Widgeon very near the shore, near enough that we could hear their odd piping calls; and we were delighted to see a number of Buffleheads, with their very distinctive head patterns.

Due to heavy icing we didn't bother to stop at the head of Bedford Basin, and there was nothing of particular interest at the Mill Cove sewage treatment plant (except for the spectacular damage caused by Hurricane Juan to the boardwalk). We spent quite a lot of time at the Richmond Terminals, looking for a reported Bonaparte's Gull among the Black-Headed Gulls. The two species are similar, and we weren't able to convince ourselves unanimously that we saw the Bonaparte's, although some participants were more positive about it than others.

There was nothing of interest at the Dingle, so we pressed on to the big sewer outfall at Tribune Head. Sheltered from the wind, we looked down onto the ocean and enjoyed the sight of several hundred Common Eiders, a single Lesser Scaup, and one or two Black Guillemots in their drab winter plumage.

By now we were all pretty cold and tired, so we called it a day and headed home.

- Peter Payzant



SPECIES LIST Birds

Common Loon
Great Cormorant
Snow Goose
Mallard
American Black Duck
American Wigeon
Green-winged Teal
Lesser Scaup
Common Eider
Long-tailed Duck
Common Goldeneye
Barrow's Goldeneye
Bufflehead
Red-breasted Mergan

Red-breasted Merganser Bald Eagle

Black-headed Gull Ring-billed Gull Herring Gull

Iceland Gull Great Black-backed Gull

Black Guillemot Rock Dove

Northern Flicker Blue Jay

American Crow Black-capped Chickadee

American Robin European Starling

Pine Warbler Palm Warbler

Northern Cardinal House Sparrow

Insects

Mealworm (captive)

Mammals Harp Seals Gavia immer Phalacrocorax carbo Chen Cærulescens Anas platyrhynchos A. rubripes

A. crecca Aythya affinis Somateria mollissima Clangula hyemalis

A. americana

Bucephala clangula B. islandica B. albeola

Mergus serrator Haliæetus leucocephalus

Larus ridibundus L. delawarensis

L. argentatus L. glaucoides

L. marinus Cepphus grylle Columba livia

Colaptes auratus
Cyanocitta cristata
Corvus brachyrhynchos

Poecile atricapilla
Turdus migratorius
Sturgus vulgaris

Sturnus vulgaris Dendroica pinus D. palmarum

Cardinalis cardinalis
Passer domesticus

Tenebrio sp.

Phoca groenlandica



PLACE: December 13, 2003
PLACE: Middle Musquodoboit
WEATHER: Sunny and cold
INTERPRETERS: Dave Taylor
PARTICIPANTS: 7

On a sunny but chilly morning, seven of us gathered at the Natural Resources Education Centre in Middle Musquodoboit for a tour of the Centre and its grounds. Dave Taylor greeted us with coffee and fresh gingerbread and told us a bit of the history of the Natural Resources Education Centre (NREC).

The Centre's mandate is "to provide natural resources education instruction in a manner that fosters a sense of responsibility and stewardship towards all of our natural resources." It is owned by the Department of Education, and offers on-site and outreach programmes to schools and community groups, has an interpretative trail system, and gives forest management demonstrations. All programmes for schools

are curriculum-based. They can be held on-site, or interpreters will travel to schools (outreach). They also offer on-site education sessions for community groups on Saturdays. Sparks, Beavers, Brownies, Cubs, Girl Guides, Pathfinders, and Scouts have all benefitted from NREC and its programmes.

Dave Taylor is a man who loves his job and it shows in his enthusiasm in explaining NREC's function and in the stories he tells. Because the facilities are shared with the Musquodoboit Valley Education Centre, a P-6 elementary school, he sees children on a daily basis, a definite job perk in his eyes. And the children are lucky too. Behind their school are trails, ponds, and fields for them to explore. In fact, they are assigned a hardwood and softwood tree and can follow the growth of their trees through elementary school and even through high school, as it is only up the road.

Outfitted with a history of the Centre, and fortified by hot coffee and warm gingerbread, we set out.

The McCurdy Woodlot Interpretative Trail System contains six trails. Hurricane Juan caused much damage and the trails required a great deal of work, especially in clearing pathways. The damage was evident as we made our way around the Titus Smith Trail. (There is also a trail called the Saunders Trail, named after Gary Saunders with whom I'm sure many of you are familiar.)

Near the beginning of the trail, Dave pointed out a huge stump that used to be a porcupine den.

He mentioned that climate change has resulted in ticks being present for the first time last summer (there were no heavy frosts, and the heavy snows protected the overwintering insects).

Oak trees, of which there were originally 12, now number 84. On the way he also pointed out a Canadian yew and a lung lichen, and demonstrated how the age of a tree can be determined with the use of an increment borer. When we had completed the loop, we returned to the Centre and Dave showed a short video, after which he had us participate in an illustration of the importance of biodiversity using tin cans and string.

In all, it was an informative, interesting, and enjoyable morning. The NREC is performing a vital service in educating the children in the ways of the natural world; they are the stewards of the future.

For more information about the Centre, go to http://www.gov.ns.ca/natr/extension/education. There, you can take a virtual tour of the Titus Smith Trail, and also find out more about the programmes the NREC has to offer.

Dave Taylor is always looking for people who can identify ground vegetation, shrubs, mushrooms, and possibly set up a checklist for future use. He would also be pleased to hear from anyone who wants to volunteer to work with the children.



NATURE IN BOOKS

DATE: Saturday, Feb. 28 (originally Feb. 21 – storm!)

PLACE: King's Library

WEATHER: Indoor temperatures **INTERPRETER:** Patricia Chalmers

PARTICIPANTS: 12

Patricia Chalmers introduced participants in this indoor 'field trip' to a wonderful selection of illustrated volumes in the collection of the University of King's College Library. I'm sure most readers will know Pat as a keen amateur naturalist with broad interests; she is also Assistant Librarian at King's, Nova Scotia's oldest institution of higher education, and among other duties is responsible for the rare book collection.

King's is an institution known primarily for its academic focus on the humanities and, until fairly recently, theology, so it may seem surprising that the library would have a high-quality collection in the area of natural history. However, until the late 19th century, the trend towards divergence between the arts and sciences was not as pronounced as we think it today. Perhaps for this reason the books Pat chose to show the lucky group who attended this event – registration was required and necessarily limited – were as noteworthy for the artistry as for the scientific informativeness of their illustrations. I think I can say without polling the dozen participants that each felt like they'd won a prize.

Pat met the group in the lobby and began the talk with a few words about the library itself, which occupies a delightful building facing onto the King's 'Quad'. We then moved to the boardroom where Pat talked about the development of illustrated books.

Prior to the advent of printed books, manuscripts were the medium through which texts were distributed. Often, these were copied on demand, and only 'best sellers' would be kept in stock. Today, Pat noted, we are bombarded with graphic images, but most early books have very few illustrations. For reasons of economy, such illustrations as were included were often stylised: for example, buds, blossoms, and fruit might all appear on a single plant. The conventions used were understood by readers. Through many copying iterations, variations would appear, as copies got farther and farther from the original specimens illustrated.

With the advent of moveable type for printing, woodcut illustrations came to the fore; carved woodblocks could be inserted into type trays and printed with the book. Since many early printed books were re-issues of manuscripts, corrupt originals became fixed, and conventional styles of illustration continued. Over time, with the growth of both scientific enquiry and increasingly refined means of printing illustrations, this changed. Woodblocks were succeeded in the 17th & 18th centuries by copper plates, which allowed more finely-detailed images, but both lacked durability for long print runs. Not until the advent of steel-plate engraving in the 19th century and later on, electroplated steel, were long runs

possible. Printing techniques advanced too, but monochrome printing remained the rule; until the mid-19th century, colour illustrations were coloured by hand.

The earliest volume Pat chose dated from 1581, a book of emblems by Andrea Alciati, illustrated with woodcuts. Many of its illustrations were of trees, including one of an apple tree with fruit which, interestingly, doesn't look much like a modern apple at all.

Most of the volumes dated from the 18th century and first quarter of 19th, perhaps not surprisingly, as the scientific investigation of the natural world expanded rapidly throughout these two centuries. (King's was founded in 1789.) The earliest of these was a work by the father of modern botany, the Swedish physician usually known by his Latin name – Carolus Linnaeus (1707-1778). This book, published in England in 1747, includes the Classes plantarum, a seminal botanical work first published in 1738. The book was a gift of Sir John Wentworth to the King's Library.

Linnaeus's system of plant taxonomy, based on the sexual parts of plants, changed the character of botanical illustration; a main, whole-plant image was often accompanied by details of flower parts and fruit.

Not everything changed quickly. Most scientific books, addressed to a cosmopolitan audience, continued to be written and published in Latin, the universal language of discourse for nearly two millennia. These were also often translated for popular use into local languages, but not always quickly. Linnaeus's Systema Naturae, published in 1737, did not appear in English until 1802. Perhaps this was not such a bad thing, as it was corrected and updated, and illustrated with new plates by William Turton, M.D. Plates were not always integrated into text - metal plates were printed by completely separate processes anyway - and were issued in separate volumes, or prepared in order to accompany earlier works. Thomas Martyn's 1799 issue of Thirty-eight plates, with explanations, intended to illustrate Linnaeus's system of vegetables, and particularly adapted to the Letters on the elements of botany, is an example. (Whew! Martyn didn't go in for short titles, did he?) The "Letters" referred to were not by Linnaeus, but by Jean-Jacques Rousseau – Letters on the elements of botany, addressed to a lady.

Among the sciences, only botany was considered a suitable study for the fair sex.

As interesting and important in the history of science as the early volumes are, it is those published at the end of the 18th and in the early 19th century that I found most fascinating. The colour plates are wonderful, and the texts speak to the modern mind and sensibilities. Among King's holdings from this era is a 36-volume set of English botany with superb illustrations by James Sowerby and texts by Sir J. E. Smith. This work is aptly subtitled ...or coloured figures of British plants, with their essential characters, synonyms and places of growth; to which will be added occasional remarks...

This is a justly famous and important book.

Sowerby's incomparable illustrations are of particular plant specimens, identified as to date and place of collection. Smith's accompanying texts are a joy to read, and outline not only the basic facts – description of plant and habitat, range and locations where it is to be found, blooming time, whether annual or perennial – but also medicinal, horticultural or other economic uses, cultivation, details about the specimen illustrated, and sometimes they include an interesting anecdote.

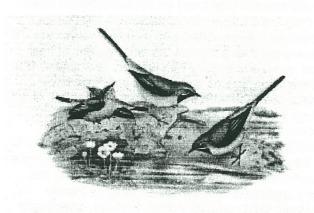
English botany was issued, by subscription, over a period of 24 years, from 1790 to 1814, a period during which most botanists' eyes were directed towards the New World and the lands of the Pacific. The library holds a 1790 Journal of a voyage to New South Wales with 65 plates of previously unknown mammals, birds, reptiles, plants, "and other natural productions", as well as important works on American flora by André Michaux (1803) and Frederic Pursh, (1814).

The King's set of English botany is especially fine, as it is beautifully bound in pale leather, with giltedged pages. Pat explained that it was usual for books, especially for high-quality books, to be sold unbound or in a temporary binding. The purchaser then took the book to his binder to have it bound to his taste. I wondered if the binding of this set was done as the volumes were issued? Unfortunately, little note was taken of the work of binders, who were considered tradesmen, rather than artists.

I've concentrated on botanical illustration, the emphasis of the collection, but I'd be remiss if I didn't close by mentioning two lovely and interesting books that didn't focus on plants. William Jardine's Humming birds, two volumes published in the 1850's replete with coloured illustrations of colourful birds, would delight even a botanist. Martin Lister's Historiae sive Synopsis Methodicae Conchyliorum is a 1770 Oxford University reprint of the 1685-1693 edition. Illustrated with plates engraved by the author, his wife, and daughter, it is one of the first scientific works on... snails!

Thanks, Pat, for leading such an interesting outing! We hope that you will repeat this trip for us, or perhaps make it an 'annual favourite'.

- Barry Sawyer



KIH GREY WARTAN

SOUTH PENDER ISLAND, BC

Date: Friday, Saturday, & Sunday, Feb. 27-29

Place: South Pender Island
Weather: Warm; cloudy to sunny

Participants: 10, including four children; one dog

Interpreters: All

Between February 22 and March 7, we visited various places in B.C. One of them was beautiful South Pender Island, in the Straits of Juan de Fuca.

On Friday evening, a BC Ferries car and passenger ship was our means of transport to the island from Victoria, and this part of the trip was also beautiful, with both seals and the occassional porpoise spotted alongside in the salty waves. And of course there were the ubiquitous gulls accompanying the ship, presenting very close-up views of breasts, legs, tails, and underwings.

Pender Island is a truly breathtaking spot, with pristine, clear bays and waters dotted with many small islets. One of these is dead in front of my son's waterfront summer house there, so very, very close, that at low tide one can walk to it on the sand. More often than not it boasts basking/swimming seals and various exciting birds. The beach is littered with live limpets, periwinkles, and dogwhelks; scallop and oyster remains; and small crabs and blennies hiding under rocks in the small pools and wet places left behind by the receding tide. On Saturday, a few crabs and small, eel-like blennies were gathered in a bucket for observation by one of our grandaughters. In winter and early spring blennies retreat under rocks in the shallows to lay their egg masses around which they wrap themselves, tenderly guarding them. Also seen here and elsewhere were the washed-up remains of the giant Bull Kelp, with its very thick, long, hollow stems.

Fortuitously, we witnessed some very interesting bird behaviour here. We had both a scope and field binoculars. On top of the 50-foot bank going down to the stony beach is an old conifer snag. This is where we obtained excellent views of three to four alternately perching immature Bald Eagles, taking turns wheeling around, calling out with their peculiar highpitched mousy squeaks and trills (for such large birds), and feeding on a fresh porpoise skeleton (the blood was still bright red) on the rocky beach below.

Only the skull and the spine were left when we began our observations, but each bird seemed to have a good long feed on the small scraps of flesh that must have been left on the very red bones. One of the young eagles had a large, yellowish cauliflower-like growth on the side of his face, but it didn't seem to hamper him from feeding in any way. We wondered though if he was constantly last in the young eagle feeding line-ups.

When they seemed to have finished, and they had floated away on the breezes, the skull was by this time separated from the spine. Later, a Pacific Harbour Seal came very close to shore, seeming to sniff, and sniff again, at the remains' smells wafting in the air. The next day, Sunday, we finally went to

collect it for closer observation and identification.

On the rocky islet we saw gannets drying out in their typical wing-spread posture, gulls, and Hooded Mergansers paddling and diving about it, even climbing out to rest upon the rocks to preen and then back in again to bathe and dabble.

Better than TV any day.

Later in the day, taking a walk further down the country road, we saw and heard Mourning Doves, American Robins, many sparrows, Blue Jays, Crows, and Whiskey Jacks. Accessing a public walkway and steep wooden staircase to another beach below, we saw a wondeful example of ancient rock folding and mountain building – vertical lines of sedimentary rocks soaring up from the beach to the grassy lands above.

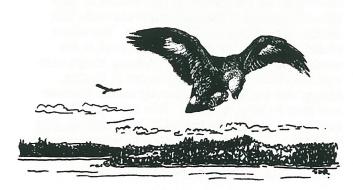
On the banks and up above among the bracken, ferns, and conifers, were many Eucalyptus trees. On the beach were one or two large granite boulders, seemingly out of place but perhaps either brought in by humans, or previous inclusions or small plutons of igneous rocks separated by stormy waves from their original beds. Further up along the shore were steep cliffs of hard sandstone, with various sizes of round caves and holes ground out by different rocks now long gone with the tides and storms. Here in the waters of this small bay we saw Harlequin Ducks, Hooded Mergansers, and a female Barrow's Goldeneye.

And another juvenile Bald Eagle floated lazily by. On Sunday, after a delicious breakfast, we drove to another interesting bay, the rocks and rocky beach attesting to its being an ancient riverbed with its outcrops of long, wide ridges of conglomerate rock sporting a very wide range of sizes of myriads of different inclusion rocks in a fairly hard shale or sandstone. Only a small trickle of this obviously once very large and ancient river was left, even in early spring, sending its small watercourse to soak down into the saltwater bay. Here, in a small tidal pool close to shore, we found a brilliant, orange-red Blood Star.

We spotted Red-breasted Mergansers, Harlequin Ducks, and Wood Ducks, more washed-up large stalks of kelp, and the remains of a Shield-backed Kelp crab.

A wonderfully refreshing weekend, away from White Juan and all its concomitant shovelling!

- Stephanie Robertson





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

I have seen the willets dancing in the springtime on the shore, dancing not only on the short salt grass that is covered monthly by the tide, but dancing in the air, like butterflies, or salamanders wrapped in flame (...) They arrive here in April and immediately advertise their presence with conspicuous territorial flights and loud musical calls. Much more than the quiet robins (some of whom may be here all winter), the willets are the true criers of the spring.

- Harold Horwood, "Fire dance", in Dancing on the shore: a celebration of life at Annapolis Basin (1987)

NATURAL EVENTS

20 Mar. Vernal Equinox at 2:48 AST. Spring begins in the Northern hemisphere.

23 Mar. Daily average temperature at Shearwater is above 0°.

4 Apr. Daylight Savings Time begins at 02:00 AST; turn clocks ahead one hour.

5 Apr. Full Moon.

16 Apr. Daily minimum temperature at Shearwater is above 0°.

22 Apr. Earth Day.

4 May Full Moon.

28 May The date of last spring frost in Halifax (i.e. Environment Canada says that there is only a 1 in 10 chance that a spring frost will occur after this date); look forward to 155 frost-free days.

3 Jun. Full Moon.

4-5 Jun. Perigean Spring Tides will be very large.

8 Jun. Transit of Venus at dawn; the planet will be silhouetted against the solar disk until 08:25 ADT. Follow recommended precautions before attempting to view the sun.

8 Jun. Oceans Day.

10-20 Jun. The earliest mornings of the year; Sun rises at 5:29 ADT.

20 Jun. Summer Solstice at 21:56 ADT; Summer begins in the Northern hemisphere. The longest day of the year, with 15 hours and 34 minutes of daylight at Halifax.

22-30 Jun. The latest evenings of the year; Sun sets at 21:04 ADT.

 Sources: Atmospheric Environment Service, Climate Normals 1951-80 Halifax (Shearwater A) N.S.; Blomidon Naturalists Society's 2004 Calendar; Burke-Gaffney Observatory, Saint Mary's University.

SUNRISE AND SUNSET ON SPRING AND EARLY SUMMER SATURDAYS



6 Mar.	6:43	18:10	3	April	5:51	18:45
13 Mar.	6:30	18:19	10	April	6:39	19:54
20 Mar.	6:17	18:28	17	April	6:27	20:02
27 Mar.	6:04	18:36	24	April	6:15	20:11
1 May	6:04	20:20	5	June	5:31	20:56
8 May	5:55	20:28	12	June	5:29	21:00
15 May	5:46	20:36	19	June	5:29	21:03
22 May	5:40	20:44	26	June	5:31	21:04
29 May	5:34	20:50				

- courtesy of David Lane, Burke-Gaffney Observatory, Saint Mary's University

ORGANISATIONAL EVENTS

Blomidon Naturalists Society: Indoor meetings take place on the 3rd Monday of the month, Room 241, Beveridge Arts Centre, Acadia University, 7:30 p.m. Field trips usually depart from the Robie Tufts Nature Centre, Front St., Wolfville. For more information, go to http://www.go.ednet.ns.ca/~bns/>

26 Mar. "Five-Planet Lineup at Grand Pré"; R. Bishop, 542-3992; S. Williams, 542-5104. Rain date - Sat., 27 Mar.

19 Apr. "The Value of National Parks"; Peter Hope, former chief park interpreter at Kejimkujik National Park.

25 Apr. "Early Spring Birds of Kings County", with leader Jim Wolford, 542-9204.

Burke-Gaffney Observatory: Public shows at the Burke-Gaffney Observatory at Saint Mary's University are held on the 1st and 3rd Sat. of each month. From Jun. through Sep.. they are held every Sat. Tours begin at 7:00 p.m., Nov. 1-Mar. 30; and at either 9:00 p.m. or 10:00 p.m., Apr. 1-Oct. 31. For more information, 496-8257; or go to http://apwww.stmarys.ca/bgo/.

Heritage Trust of Nova Scotia: Indoor meetings are held every 3rd Thurs. of the month, Sep.-Jun., at the Nova Scotia Museum of Natural History, at 7:30 p.m. For more information, 423-4807.

15 Apr. "The Acadian Dykes", with Professor Sherman Bleakney, Acadia University.

Maritime Museum of the Atlantic: For more information, 424-7490; or go to http://museum.gov.ns.ca/mma/. to 31 May "Charting the Waters: Hydrography in Atlantic Canada".

Nova Scotia Bird Society: Indoor meetings every 4th Thurs. of the month, from Sep. to May, at the Nova Scotia Museum of Natural History, 7:30 p.m. For more information contact Suzanne Borkowski, 445-2922; or go to http://www.chebucto.ns.ca/Recreation/NS-BirdSoc/>.

- 27 Mar. "Baccaro/Blanche Peninsula"; with Donna Ensor, 875-426; <ensorg@auracom.com>. Storm date 28 Mar.!
- 10 Apr. "Martinique Beach", with leader Ian McLaren, 429-7024; <iamclar@is.dal.ca>.
- 30 Apr. "Annual Out-of-town Meeting", on Cape Sable Island. Replaces usual Thurs. evening meeting in Halifax.
- 1 May "Cape Sable Island", with leader Murray Newell, 745-3340; <murcar@klis.com>.
- 38 May "N. American Migration Count", with Prov. Co-ordinator Judy Tufts, 542-7800; <tandove@ns.sympatico.ca>.
- 16 May "Lunenburg Co."; Chris Field, 422-9500, <field@mathstat.dal.ca>; Billingtons, 857-3128; <billeen2@aol.com>.
- 19 May "Fred Dobson Warbler Walk"; Joan Waldron, 477-4273; <waldrojo@ns.sympatico.ca>. Pre-register!
 - 21-24 May "Bon Portage Island"; Claire Diggins, 825-6152; <claire_diggins@hotmail.com>. Pre-register!
 - 22 May "Conquerall Mills", with leader James Hirtle, 624-0893; email < jrhbirder@hotmail.com>.
 - 24 May "Kejimkujik Seaside Adjunct", with leaders Gary Hartlen, 354-7250; <garych@eastlink.ca>, and Peter Davies.
 - 27 May "Comparing Spring and Fall Warblers", with Ian McLaren.
 - 29 May "Belleisle Marsh", with leader Sharon Hawboldt, 665-4105; email <s.hawboldt@ns.sympatico.ca>.
 - 30-May "Amherst Point Bird Sanctuary", with Terry Paquet, 452-3622; email <terrypaquet@hotmail.com>.
 - 2 Jun. "BLT Trail Walk", Suzanne Borkowski, 445-2922; <sborkowski@hfx.eastlink.ca>. Pre-register!
 - 5 Jun. "Canso and Area", with leader Steve Bushell 366-2527. Rain date Sun., 6 June!
 - ▶6 Jun. "Chebucto Peninsula Bird Tour", with leader Hans Toom, 868-1862; email <htoom@hfx.eastlink.ca>.
 - 12 Jun. "Dawn Chorus on the Salt Marsh Trail"; Cindy Staicer, 494-3533; <cindy.staicer@dal.ca>. Rain date 13 Jun.!
 - 19 Jun. "Cumberland County" with leader Fulton Lavender, 455-4966. Rain date Sun., 20 June!
 - 20 Jun. "Lewis Lake Provincial Park Warbler Walk"; Suzanne Borkowski, 445-2922; <sborkowski@hfx.eastlink.ca>.
 - 26 Jun. "Eastern Shore"; Bob Lindsay, 434-3438; <rhlindsay@accesswave.ca>. Rain date Sun., 27June.!

Nova Scotia Museum of Natural History: For more information, phone 424-6099, or 424-7353; or go to http://museum.gov.ns.ca/mnh/>.

- Apr. "Annual Salamander Meander", with John Gilhen. Pre-register, 424-3563, after 1 March!
- 3-4 Apr. "Annual Orchid Show & Sale". Orchid Society of N.S. Talks each day at 2:00 p.m. in the Museum Auditorium.
 - 5 Apr. "Underwater Observations of Novel Behavior in the Greenland Shark...", with Dr. Chris Harvey-Clark.
- 7 Apr. "Gardens for Science and Pleasure", with NSMNH Manager and Botanist, Alex Wilson.
- 21 Apr. "Beneath the Glacial Ice... 84,000 Years Ago", with Bob Grantham, Exec. Dir., Nfld's Johnson Geo. Centre.
- 28 Apr. "United Plants Savers: Medicinal Plants at Risk", with the United Plants Savers and the Herbalist Ass. of N.S.
- 8 May "Forestry Product Expo". Celebrate National Forestry Week with members of the Nova Forest Alliance.
- 15-16 May "Wildlife Show", the Nova Scotia Wildlife Carvers & Artists Association Annual Show & Members Competition.
 - 19 May "Fish Tales and Sea Scorpions... Devonian"; Dr. R. Miller, Curator of Geo. and Palæontology, N.B.Museum.
- to 24 May "Spirit of Place: MacKinnon's Brook, Nova Scotia. Photographs by Joanne Chilton.
 - 26 May "Canadian Cougar Conundrum", with retired NSMNH Curator Fred Scott.
- 28 May-11 Oct. "Five Crows Silver", with five N.S. artists; Corvid specimens and their role in monitoring the West Nile Virus.
 - 6 Jun. "Ocean Commotion", with programmes for World Oceans Day.
- 12-13 Jun. "Museum Weekend", with lots of children's programmes.
 - 17 Jun. "Rock Walk at Peggys Cove", with Geologist and NSMNH Curator Martha Grantham. For more info, 424-3563.

Nova Scotia Wild Flora Society: Meets 4th Mon. of the month, Sep.-May, at the NSMNH, 7:30 p.m. For more info phone Carl Munden, 469-1856; or go to http://www.chebucto.ns.ca/~nswfs/>.

- 26 Apr. AGM, followed by "From the Mountains to the Desert...California/Arizona Highlights", with Anne Mills.
- 24 May "Wentworth Valley Field Trip". Replaces Monday evening meeting in Hfx. Contact Heather Drope, 423-7032.

Photographic Guild of Nova Scotia: Meets 2nd Monday of the month and 1st and 3rd Sundays, at the Nova Scotia Museum of Natural History, 7:30 p.m. Shows are at Saint Mary's University, Theatre A, Burke Education Centre. For more information, go to http://www.photoguild.ns.ca/.

- 4 Apr. "Nova Scotia Bird Society Trophy Competition".
- 24 Apr. "Annual Spring Show".
- 2 May "Kangaroos & Kiwis...", with Philip Giles. "... Mabou Highlands", with Joanne Chilton and Bob Bancroft.
- 16 May "Nature Photography", with John William Webb.

Royal Astronomical Society of Canada (Halifax Chapter): Meets 3rd Friday of each month, Room L176, Loyola Academic Building, Saint Mary's University, 8:00 p.m. For more info, http://halifax.rasc.cs/>.

TIDE TABLE

April-avril May-mai													June	e-jui	n								
Day	Time	Feet	Metres	jour	heure	pieds	metres	Day	Time	Feet	Metres	jour	heure	pieds	metres	Day	Time	Feet	Metres	jour	heure	pieds	metres
TH JE	0445 1110 1735 2330	5.2 1.3 5.2 2.0	1.6 0.4 1.6 0.6	16 FR VE	1815	5.6 1.0 5.6	1.7 0.3 1.7		0455 1110 1730 2350	5.2 1.3 5.6 1.3	1.6 0.4 1.7 0.4	SU	0025 0605 1235 1820	1.0 5.2 1.3 5.9	0.3 1.6 0.4 1.8		0015 0605 1210 1815	0.7 5.2 1.3 6.6	0.2 1.6 0.4 2.0		0120 0715 1335 1905	1.0 5.2 2.0 5.6	0.3 1.6 0.6 1.7
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Nature Notes from HFN Monthly Meetings

February /04

- Ursula Grigg has been observing some of the continuing effects of Hurricane Juan. The view of her yard reveals much more sky with two trees now gone. These were favourites of Bohemian Waxwings that came for the crab apples. She and her neighbour are considering what replacement trees would be best.
 - Jennifer MacKeigan has had an Eastern Meadowlark all winter in Nine Mile River.
- Leslie Butters described a phenomenon she observed near the Waegwoltic on the Northwest Arm at the last new moon, at high tide around 10:30 p.m. There were unidentifiable squiggly creatures on the water which would swim down to the sand and then resurface. They were about 17 cm long with colouration like garter snakes.
 - Joan Czapalay reported a Bald Eagle over her house on Walnut Street.
 - Bernice Moores had seen a Red-tailed Hawk by her kitchen window on Edward Street.
- Stephanie Robertson reported that a friend in Chezetcook saw a Bobcat under conifers in her back garden. It remained there for quite a while before returning to the woods.
- We had a visitor from Ontario at the February monthly meeting who has been working with South Shore residents in relation to the potential of birding within the 'development' of tourism activities. He feels that local birders could contribute to a synopsis of what N.S. offers in the way of birding. Then, it would be possible to incorporate the strengths and weaknesses of various sites, before any development or promotion is considered for them. He is seeking suggestions for suitable places to promote, and also for those places that are *too* sensitive to be promoted. He feels strongly that protection of important bird habitat can come with the formal recognition of the potential contribution of birding to tourism.

- Lillian Risley

