THE HALIFAX FIELD NATURALIST



No. 158 March to May, 2015



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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 the Canada Reve-

nue Agency. Tax-creditable receipts will be issued for individual and corporate gifts. HFN is an affiliate of Nature Canada and an organisational member of Nature Nova Scotia, the provincial umbrella association for naturalist groups. 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, and 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; they are open to the public. Field Trips are held at least once a month; it is appreciated if those travelling in someone else's car share the cost of the gas. Participants in HFN activities are responsible for their own safety. Everyone. member or not, is welcome to take part in field trips. Memberships are open to anyone interested in the natural history of Nova Scotia. Forms are available at any meeting of the society, or by writing to: Membership Secretary, Halifax Field Naturalists, c/o N.S. Museum of Natural History. Members receive The Halifax Field Naturalist, along with its included Programme, quarterly. Our membership year is from January 1st to December 31st, and new memberships received from September 1st to December 31st of any year are valid until the end of the following membership year.



HFN ADDRESS

Halifax Field Naturalists, c/o N.S. Museum of Natural History, 1747 Summer St., Hfx, N.S., B3H 3A6 Email: hfninfo@yahoo.ca Website: halifaxfieldnaturalists.ca We are now on Facebook. Enter Halifax Field Naturalists or HFN.

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NNS ADDRESS

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FEES	2015	
	\$15.0 \$20.0	
	\$25.0	
	\$30.0	
	\$30.0	
	\$5.0	

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GRAPHICS All uncredited illustrations are by H. Derbyshire or from copyright-free sources. Front Cover - Showy Lady's-slipper, Cypredium reginae, Richard Beazley; Back Cover - Yellow Lady's slipper, Cypredium parviflorum, Richard Beazley; Tide Table - Canadian Hydrographic Service, Fisheries & Oceans Canada.

HFN MEMBERS' ART EXHIBIT

Twenty-four Halifax Field Naturalists have registered their intention to submit their nature-related art at the HFN Members' Art Exhibit, to be held at the NSMNH starting June 4th and running through to September 27th. There is very good variety, and one of the next steps is to get information from the participants so that a wall plan can be made for arranging them and so that art-gallery style labels can be designed for each piece.

HFN BOOK CLUB



HFN's Book Club held its March 11th meeting and both last year's members and new members were invited (participants need to be HFN members). One book is discussed at each of these meetings, and <u>Connemara: Listening to the Wind</u> by Tim Robinson was the selection for March 11th. Book selection for the May meeting is still open for suggestions. If interested in joining the Book Club please register so that important details can be emailed to you.

Contact: Gillian Webster, 453-9244, gillian.webster@eastlink.ca or Brian Bartlett, 420-0315, bbartlett@eastlink.ca.

FESTIVAL OF NATURE



This year, in Sackville N.B., Nature NB and Nature NS will join The Chignecto Naturalists' Club, who will be hosting a "Festival of Nature" in this spectacular area of the Maritimes from June 5th to 7th (June 5th is World Environment Day). Search busy flyways for migrating seabirds and songbirds, resident and transient raptors, and maybe get a glimpse of a Moose! Explore beautiful and rare flora, look for butterflies, and hike some fossil cliffs, old railways, and Acadian dykes too.

The preliminary programme is jam-packed with lots of topics and field trips, such as – Peepers and Friends; Nature Beyond Our Earth; eBird: a Revolutionary Birding Tool; Early Morning Birding at the Sackville Waterfowl Park; The Impact of the Bay of Fundy Tides and Rising Sea Levels; Birding the Tantramar Area; Coastal Landscapes from Cape Jourimain to Cape Tormentine; Tour of Fort Beausejour; a Youth Programme (6-12 years); Native Flora; Ecology of the Intertidal Zone; and Chignecto National Wildlife Area – Gypsum Gems and Green-winged Teal. As well, Nature NS will be holding their AGM at this event, and HFN's Bob McDonald will be leading the field trip around the Sackville Waterfowl Park in the afternoon of Saturday, June 6th. Other HFN members may be leading other field trips.

FACEBOOK



HFN is now on Facebook. Simply enter **Halifax Field Naturalists** or **HFN**.

KUDOS AND THANKS TO HFN

NSNT's January <u>Landlines</u> published the following piece about HFN:

This year, the Halifax Field Naturalists (HFN) are celebrating an amazing and productive 40 years of natural history education and conservation advocacy. In addition to monthly field trips and natural history presentations, they publish reports and a quarterly newsletter, and get involved with conservation initiatives. Read about HFN's 40 year history in a recent op-ed by HFN member Richard Beazley *(see p. 9).*

HFN members have been incredibly supportive of the Nature Trust over the years. In 2003, HFN donated funds towards the land survey and legal processing of the Captain Arnell Conservation Lands (one half of the Purcell's Cove Conservation Lands). They also joined our stewardship team as property guardians for the Purcell's Cove Conservation Lands and conducted a biological inventory of the property (an on-going project over several years). HFN also organised and carried out a biological survey of the Meander River Conservation Lands.

More recently, Nature Trust conservation coordinator and HFN member Karen McKendry presented a talk at their January meeting, and was surprised with a \$5,000 pledge for the Nature Trust's 100 Wild Islands Legacy Campaign.

We'd like to congratulate HFN on 40 years of important work, and thank them for their unfailing support of our work!



Karen McKendry (left) receiving the pledge of \$5,000.00 from HFN President Janet Dalton for the Nature Trust's 100 Wild Islands Legacy Campaign.

NEW & RETURNING



Ron Arseneau Taiya Barss Anna Heywood-Jones Molly LeBlanc L.H. Paris Caitlin Porter

SPECIAL REPORTS

2014/2015 YEAR-END REPORTS

FROM THE PRESIDENT

At the end of each year I can't help but think of all the activities that are presented by the Halifax Field Naturalists – the hikes, the illustrated talks, and visits to unique places. All these events occur because of the fabulous volunteers connected to our organisation. And of course I would like to thank those volunteers. I am going to mention them in alphabetical order, and hope that I do not leave anyone out.

First of all I must thank **Richard Beazley** for all his organising skills as he makes sure everything is shipshape before each monthly meeting. If there is a glitch he is the one who solves the problem before it even gets to be a problem. He and his wife, **Grace Beazley**, are the leaders of the committee who organise the programmes. They are famous for their hikes to waterfalls. Grace is also our chairperson for the 40th anniversary committee and she brings us history notes from the past. I might add there is much more to come thoughout our 40th anniversary year.

Michael Bradfield is our secretary and records the minutes of our executive meetings. Sometimes he is so efficient that we get the minutes by email on the same night as the meeting! Pat Chalmers brings to the Newsletter her well-researched Almanac. Elliott Hayes was our Emcee at Christmas time and he adds a great deal of interesting subjects to our programme in the form of speakers and places to visit. Doug Linzey is the keeper of our mailing database and prints the address labels for the newsletters. Regine Maass brings us delicious refreshments at the end of each monthly meeting. How many of us enjoy the tea and cookies at evenings end? Bob McDonald keeps tabs on the conservation activities that go on around Halifax Regional Municipality, and I might also mention that Bob's wife Wendy McDonald has contributed many ideas for our programme in the past. Bernice Moores makes sure everyone gets their newsletter and delivers many in person. David Patriguin is our webmaster who is at the moment in Barbados doing some coral reef field work. Ingrid Plache is our treasurer who pays our bills including the rent for the NSMNH auditorium and fills out government forms each year. Burkhard Plache contributes to the programme and leads many hikes besides helping David with our website. Lillian Risley is our membership secretary and sends out many messages and reminders throughout the year by email. If you wish to pay your membership she is the one to see. Allan Robertson is our past president and he faithfully records the Nature Notes for the Newsletter at each meeting. He looks after the nominations at our Annual General Meetings each year and does many other tasks when the need arises. Stephanie Robertson is the editor of our Newsletter and does a wonderful job. I know I look forward each quarter to receiving the HFN Newsletter and it is a real joy to read.

Clare Robinson helps with the 'conservation watch' along with **Bob McDonald**.

Clarence Stevens is the Vice President and has been a great addition to our executive. He has been our trusted emcee for many of our monthly meetings. **Rachelle Watts** has helped as a team member of the programme committee to create the interesting activities this year. **Gillian**



Webster has formed a book club and has been a recorder of presentations for the Newsletter. I know there have been interesting books reviewed at this club and anyone interested can join Gillian and the club members. **Peter Webster**, Gillian's husband, has helped produce the Members' Photo Night accompanying our AGMs and we thank him for his past work.

We have nine directors at present, and we welcome more as we can have up to a total of 12. This is an interesting job and the only commitment is to attend the three or four executive meetings throughout the year. The 7:00 p.m. meetings are usually over by 9:00 to 9:30 p.m.

- Janet Dalton

CONSERVATION

The Conservation Committee has been rather remiss in our annual reports but hopefully this one will serve to bring the membership up-to-date on our activities. The committee does not meet in person and often our activities are done by only one member of the group.

Bob McDonald serves as the HFN representative to Our HRM Alliance, a municipality-wide coalition of nearly 60 business, outdoor, trail, and environmental groups. The Alliance was begun in an attempt to give the public some organised input into the update of the Regional Municipal Planning Strategy, the so-called 'Regional Plan + 5'. As a part of the Alliance, we have worked with a number of other like-minded groups on the implementation of a Greenbelting Plan surrounding the capital district. The Greenbelt concept actually did find its way into the approved updated plan, and it is now up to us to see that it is implemented. Active transportation is considered to be a cornerstone of the plan and unfortunately recreation trails are missing at the moment. The municipality is currently conducting a formal study of 'Open Space' as an outcome of the Regional Plan. The public will be invited to provide input at future stakeholder sessions.

HFN supported the movement to establish a Community Forest within the former Bowater lands in the St. Margaret's Bay area. The proposal was spearheaded by the St. Maraget's Bay (SMB) Stewardship Association but unfortunately was not accepted by the Province (only one Community Forest proposal was accepted). Very recently, the Province has proposed that three pieces of this land – near Ingramport, Keiley Lake, and in the Ingram River watershed – be subjected to clearcutting by local forestry companies. Since local residents are convinced that such clearcuts will have a significant negative impact on the watershed and water quality, I have written a personal letter to the Minister of Natural Resources asking that this logging operation not take place.

Staying with Natural Resources for a moment, apparently DNR is considering lifting the ban currently in place regarding Sunday hunting. They are asking for public input on the matter through a short survey on the DNR website by April 10th. The survey can be found at http://novascotia. ca/natr/hunt/sunday/"http://novascotia.ca/natr/hunt/ sunday/. I've completed my own survey questionnaire, and have forwarded its link to to the HFN Facebook page and to the executive of both HFN and the Federation of Nova Scotia Naturalists. Also, I've requested that a short message and the survey link be sent to all HFN members for whom we have email addresses.

Finally, my pet conservation project for the past eight to nine years has been the Blue Mountain Birch Cove Lakes area (BMBCL). This 1350 ha Wilderness Area has been established and it seems very likely that the Province is prepared to add two additional parcels of nearby Crown Land, which total 450 hectares, to it as part of its "12% by 2015" initiative. A letter strongly supportive of this proposal was sent, and we also provided input for the preservation of a number of other pieces of Crown land, especially islands and coastal headlands. The local trails group, Halifax North West Trails Association, has partnered with two other organisations, as well as the Province, to carry out a Trail Planning Project within the Wilderness Area. This should result in improved safe public access to the many varied habitats in this Crown jewel! (HFN has led walks and hikes there and will continue to do so.)

In addition, we have continued to follow the progress (or more accurately the lack of it) of the municipal acquisition of the privately-owned land for the creation of the BMBCL Regional Park. The Park was first proposed in the 2006 Regional Plan and, to our knowledge, the city has yet to acquire any land for the Regional Park. Fortunately, Regional Council seems very supportive of the Regional Park concept and recently passed a motion urging staff to return to the facilitated negotiation process with the land owners. This ongoing process is extremely secretive and none of us even know who the facilitator is! We hope that this Legacy opportunity will rise to the top along with other ideas before Council.

Recently we learned more about the Otter Ponds Demonstration Forest (OPDF). Located in the Tangier River watershed, in Mooseland, northern Halifax County, the forest is on Crown land and encompasses approximately 500 hectares (1,200 acres). In 2010, a partnership agreement was signed with the Province which handed over the site's management to staff and volunteers from four non-government organisations: Mooseland and Area Community Association; Eastern Shore Forest Watch; Nova Scotia Woodlot Owners and Operators; and the Ecology Action Centre. Nova Scotia's first ever community-based forestry project, OPDF is a place for all Nova Scotians to learn about forest ecology and the sustainable management of our native Acadian Forest. It is a living laboratory that shows how timber production can be compatible with the protection of the full range of other forest values and services.

Stay tuned for an opportunity this spring/summer to participate in a citizen science day at the Mooseland site.

Respectfully submitted, – Bob McDonald and Clare Robinson

MEMBERSHIP

In 2014 we continued to increase our membership, moving from 114 to 128. The 2014 roll of 128 was made up of 74 individual memberships, 35 family, 17 supporting, one students, and one life membership. In addition, we had three dues-paying institutional members (all libraries). Fifty-one of our members also chose to join Nature Nova Scotia when they were joining or rejoining HFN. This year the number of members who provided us with their email addresses rose to 101, and we have been able to use this communication option to provide members with information on special events and opportunities to participate in public consultations. We have had some helpful feedback and welcome your comments at any time.

Once again thanks to Doug Linzey for maintaining the membership database and newsletter labels.

TOTAL MEMBERSHIPS BY YEAR

127 121 119 107 109 114 128	

– Lillian Risley Membership Secretary



During the past 12 months the Programme Committee organised ten presentations and 14 field trips, produced four programmes both for printing and for HFN's website, and recommended three presenters and two field trip leaders for free one-year memberships in HFN. Also, we requested programme ideas from the 101 members who are on HFN's email distribution list, and received a small number of helpful responses.

The presentations featured members' photos, an African safari, the Sackville River, the Maritime Butterfly Atlas, native wild bees, lighthouses and lightkeeping, mountain hiking in Nepal, the right to a healthy environment, conserving private land in Nova Scotia, and climate change. These presentations drew audiences that totalled over 400.

Field trip walking destinations included Laurie Park, eastern Kings County waterfalls, Pictou County's Melmerby Beach area, Purcell's Cove rock quarries, the Bedford Sackville Connector Greenway, Prospect's scenic coast (with the NS Wild Flora Society), McIntosh Run Trails, the Cabin Lake Trail, the Common Roots Urban Farm, a Lunenburg County tree plantation, bird watching sites around metro Halifax (with the NS Bird Society), and Dalhousie University's Aquatron Laboratory. Plus, we offered canoeing on the Eastern Shore and snowshoeing at Mount Uniacke Estate Museum Park and Bedford's Jack Lake. These field trips drew about 200 participants, of which 60 percent were HFN members.

Five members of the Book Club met in November to discuss Rachel Kimmerer's <u>Gathering Moss</u>. Due to difficulties in getting copies of <u>Connemara: Listening to the Wind</u>, the meeting in January was postponed to March 11th. Book Club membership currently stands at nine.

As Committee Co-Chairs, we thank committee members Elliott Hayes, Burkhard Plache, Rachelle Watts, and Gillian Webster for their valuable contributions; Stephanie Robertson, HFN's newsletter editor, for designing and doing the final edits on the printed programmes; and David Patriquin, HFN's webmaster, for putting the programmes on the website.

Also, we thank those who worked with the committee as sources of programme ideas; talk presenters and reporters; field trip contact people, leaders, and reporters; field experts re birds, conservation, flora, and rocks; programme distributors; staff members at the NSMNH; and auditorium set-up people. Finally, we thank HFN members, and members of the public, for attending programme events.

> – Richard and Grace Beazley Co-Chairs, Programme Committee

Halifax Field Naturalists Financial Statement (Balance Sheet) As of December 31, 2014

Year Assets	2014	2013
BMO Bank Account	\$2,402	\$2,839
Accounts Recoverable: HST Rebate Investments	\$299 \$13,204	\$130 \$12,544
Pins	\$541	\$541
	\$16,447	\$16,055
Liabilities and Surplus		
Liabilities Accounts Payable: Nature NS	\$235	\$245
Surplus	•	¥ -
Restricted: Endangered Species	\$7,204	\$6,544
Unrestricted	\$9,266	\$9,598
	\$16,447	\$16,055

Halifax Field Naturalists Statement of Income and Surplus January 1 to December 31, 2014

Surplus, end of year	\$9,008		\$9,266
Surplus, beginning of year	\$9,266		\$9,598
Net Income	\$(258)		\$(333)
	\$2,983	\$2,585	\$2,839
Miscellaneous	\$0	\$0	\$0
Office Supplies & Expenses	\$32	\$0	\$72
Internet Service	\$247	\$200	\$0
Insurance	\$200	\$200	\$200
Special Projects	\$0	\$35	\$31
Grants/Donations	\$100	\$250	\$0
Socials	\$0	\$0	\$2
Memberships in other organisations	\$235	\$50	\$130
Newsletter Distribution	\$736	\$300	\$353
Newsletter Production	\$1,129	\$1,000	\$1,129
Field Trips	\$8	\$0	\$0
Expenses Meetings	\$276	\$550	\$598
	\$2,725	\$2,585	\$2506
Other (sales of inventory)	\$0	\$0	\$64
Donations	\$15	\$0	\$0
Interest	\$75	\$85	\$60
Membership	\$2,635	\$2,500	\$2,315
Revenues	Actual	Budget	Actual
	2014	2014	2013
	0011	0014	0010

– Ingrid Plache Treasurer

NEWSLETTER

Last year's four issues of The Halifax Field Naturalist, from March 2014 (#154) to February 2015 (#157), contained 74 pages of natural history articles, reports, species lists, pictures, nature notes, ten HFN talks, and 16 HFN field trip write-ups. A sincere thank you to each and every one who contributed these submissions, hereby adding to Nova Scotia's natural history records and observations.

Following are a few newsletter highlights.

Our Spring Issue (#154), noted the find of an immature seal floundering around in the snow on the land side of Point Pleasant Park's Halifax harbour road. Also, there were two interesting nature-sighting stories from George's Bay and Morar submitted by Gareth Harding - a young crow killed by a Goshawk, and the recounting of the mysterious death of a Short-tailed Shrew.

The Summer Issue (#155) included the wonderful announcement that Nova Scotia Nature Trust's "100 Wild Islands" was well on its way to success, an article with hard, practical advice on choosing the most effective ways to reduce energy consumption (p. 5), and a report on Peter and Gillian Webter's wonderful trip to the east African Savannah.

For HFN's 40th anniversary in October 2015, our Fall Issue (#156) asked for submissions about members' favourite Nova Scotia places, nature encounters, or discoveries whether in prose or in poetry. An 'In Memorium' for former board member and avid canoeist Lt. Colonel Milton Gregg recalled that he, his wife Norma (also a board member at the time), and I comprised HFN's Programme Committee in 1988 and 1989 (p. 4).

In our Winter Issue (#157), once again in celebration of HFN's 40th Anniversary, we announced an HFN Member's Art Exhibit to take place at the Nova Scotia Museum of Natural History from June to September, 2015. Also, the first 40th Anniversary celebratory nature submissions were published (p.4).

My sincere thanks go to Patricia Chalmers for compilations of the all-important Almanac, with timely poems and quotes, valuable seasonal natural phenomena, and useful lists of other naturalist societies' events. For much appreciated proofing, I thank Allan Robertson, Bernice Moores, Patricia Chalmers, Bob McDonald, and other HFNers who have helped from time to time. We hope the contents continue to be a practical and interesting resource for our readers.



– Stephanie Robertson Editor, The Halifax Field Naturalist

COLIN STEWART CONSERVATION AWARD (CSCA)

The CSCA was not awarded in 2014, but there will be an award made at the HFN 40th anniversary meeting in the fall. Currently, the CSCA committee is comprised of David Patriguin and Doug Linzey.

- Doug Linzey.

CSCA Committee

HFN'S 40TH ANNIVERSARY

Following, please find more submissions in celebration of nature and HFN's 40th Anniversary.

REFLECTIONS ON MORNING GLORY FLOWERS

– Gillian Webster

I look out from my kitchen window on a grey, wintry morning. I dream of the summer to come and I reflect, over my coffee, on the past season of planting. I smile, remembering how I planted Morning Glory seeds last spring.

How is it that soil and compost, water and sun can produce glorious towers of vines with trumpeting flowers? I love the Morning Glories – they are alive; I can follow their daily summer cycle - it's like a dance.

When the flowers open, they face the sun - selecting the sunbeams they choose. They face South-East, where the sun dwells a while. Later, at the sun's zenith, the Morning Glories begin to close.

I marvel at their structure. Each day, new pink and purple umbrellas unfurl, winding slowly open. They greet me as I pass the window to pour my second cup.

Radiant white spokes mould the flower into a silk parasol. When I peer inside, I see brilliant, velvety colour.

It takes my breath away.

The flower triumphs over me, spilling its beauty. My coffee always tastes better on summer mornings.

After a short day basking in the sun, each Morning Glory accepts its end. Neatly folding in on itself, the flowery skirts of the morning glory gather themselves up and deftly tuck away their beauty, knowing they will be replaced, by their sisters, the next day.

When it rains first thing, the Morning Glories sometimes choose not to open at all. They keep their skirts wound up, as if afraid of puddles. Why waste beauty, even if it is in abundance?



SPATTERDOCK

– Michael Follow

Its yellow eye gazed at the sun But it lived for the deep -It took the mud, the muskrat den And let the ermine creep.

It knew the black as well as the blue. The water as the air. The world it saw below the rose Was equally as fair.

Each dawn it looked to land above, Each night, to dusk beneath -A cousin to the lily And stranger to the heath.



A WINTER HIKE AT CRYSTAL CRESCENT BEACH, – Gareth Harding

It was February 8th, 2009, and after a day of tabulating mercury levels in marine organisms, I packed it in and took my field glasses to Crystal Crescent Beach. The temperature had risen above 0°C, the sky had clouded overnight, and it was pretty dull by 3:00 p.m.

My first find was a White-winged Scoter, a male, by himself, just off the rollers on the main beach. Out a little further was a raft of Whistlers (Common Goldeneye – their distinctive wing-whistling sound in flight has earned them the name 'Whistlers'). The males were off together towards the big boulder on the far side of the cove. When I reached the far side I disturbed a pair of Black Ducks very close to shore. What appeared to be kelp surfacing in the swell turned out to be a pair of Otters. They were diving close in and oblivious of my presence. Keeping very close together, they obviously enjoyed each others' company. After several minutes they noticed the field glasses or perhaps they got a whiff of me and slowly swam, doing short dives around the point. I went to intercept them at the big boulder but they had disappeared. or states a

Proceeding farther along the shore I observed several Red-breasted Mergansers in the next cove off the 'nudist beach'. My eyes noticed what again looked like kelp in the swell by a semi-submerged rock, but this time it turned out to be a Mink. It made an enthusiastic dive with tail all-a-quiver and surfaced a minute later with what looked like a mature Green Crab, legs all extended. The Mink surfed through the waves, both head and catch held high, then disappeared behind a pile of granite boulders. Just when I was about to continue along the shore, the Mink reappeared and swam directly to the same rock, repeating its enthusiastic dive complete with tail all-a-quiver. It surfaced within 30 seconds with what was definitely a Rock Crab, and then repeated its swim through the surf to the same pile of boulders. Much to my delight, it started along the shore towards me with the most recent crab still in its mouth. It was so involved in the excitement of the catch that it got very close before becoming aware of me. Once spotted, it retreated in a great hurry, crab still in mouth, disappearing every now and again amongst the boulders until finally vanishing in a gigantic heap of them.

The nudist beach cove had a single Dovekie swimming behind the breaking waves. Almost too good to be true, but on the far side, were two Otters sitting high and dry. The bigger one was laboriously masticating a rather large floppy object that must have been a flatfish. After the longest while, the smaller Otter sensed me, made some snake-like head movements, then slipped into the waves. The larger took several more crunches, staring at me, then swallowed and also disappeared into the surf. I climbed the large rocky headland but could not locate them again. Were they the same two otters I'd seen earlier? It was possible but I felt that the size difference was more marked in the latter pair. Three female and one male scaup swam out to sea from the headland because of my presence. Quite the field day!

It was getting dark, so I headed back overland and ran into a soccer-ball sized porcupine who bravely rotated his little bum towards me and wiggled his tail as I passed. I was glad I didn't have our young Jack Russell Mabel with me this day! I advised the creature that I didn't think it was very wise to venture so far from trees, however, I noticed once I'd passed that it scurried off inland. It started to grow darker, misty, and to sleet a little, and I passed a spot where some animal had killed a Hare in the dense heath. Maybe it was the result of the Harriers that are constantly patrolling the semi-grown infields that used to be the old village site of Sambro.

A MEMORABLE WORKING TRIP IN THE TOBEATIC WILDERNESS

- Shirley McIntyre

Around the mid 70's I accompanied my husband, who was a wildlife biologist, as a working partner on a trip into the south-west end of the Tobeatic Wildlife Management Area. This was a ten-day trip in early November. The purpose of the trip was to live-trap Beavers and collect data about them. We were going a fair way into the wilderness, travelling by canoe and on foot; this required a lot of organisation beforehand. Some of this was to deliver some of the needs for the trip and also for its final destination for the study which included a canoe and traps. Since all did not get delivered as required, our planned starting time was delayed by a half day. This was a rather critical difference for a November wilderness trip, especially since Neil always carried on no matter what unforseen things might happen.

Instead of spending our last night at DeMoliter Camp, we rented a room somewhere between Liverpool and Shelburne The next morning we took the #203 road traveling through the Ohios, following the Roseway River fairly closely. After about 53 km, we took a lesser road to the right which brought us to DeMoliter Camp at the end of the road at noontime. After lunch we loaded our backpacks and the canoe and headed off across DeMoliter Lake. The wind was blowing so fiercely, that in spite of paddling with all your might it seemed like the canoe didn't move. Neil said, "Paddle like hell!", and eventually we got across the lake.

Then our trek along an ox cart route began. I'd been told we'd be following an ox cart route used through the years by hunters coming from Yarmouth County. I thought it wouldn't be too bad to travel. Well, I was in for a surprise; it was rugged and sometimes hard to follow, plus we had those ungodly heavy backpacks. This was another shocker - due to the inability of the plane to get everything we needed into our destination, we had a lot more to carry. When that pack was put on my back I couldn't move! It was a huge pack with a tump-line (this is a strap that goes across your forehead to help in carrying the load). It did help a little, but I found I'd walk a few steps then have to rest against a rock or whatever else availed itself. Being November, towards five o'clock it was beginning to get dark. We knew we'd not reach Roseway camp, so - we would have to sleep in the open. Thank goodness that night was fairly mild. However at dawn it began to rain, so we got up to continued our trek. We reached West Roseway Lake where a canoe had been left for us to use. After canoeing the length of the lake we were once again on the ox cart road. It was rough going, but by nightfall we reached our destination, Buckshot Camp. I'd heard stories of how a bear used the cabin as a marking post. Because of the bear's activities one of the windows had to be boarded over.

It was a basic cabin built of wood, sided with wood shingles. Inside were bunks, a wood-stove, and a table and chairs. Naturally, reaching there at dusk caused me to be uneasy, worrying about the bear during the night, but I guess I slept some.

The next day we walked to the lake where another canoe

was waiting and we began our work. This involved searching for Beaver homes and setting live traps at their entrances. We travelled around Buckshot Lake and up into Stony Ditch Lake, very aptly named because of its huge stones. I remember standing on a Beaver house as Neil was setting a trap, when I heard a loud slap, a Beaver giving a warning to the rest of his household That day was spent setting the traps and making other observations.

The next day was a rest day, meant to allow time for things to happen at the Beaver houses. It snowed so it was a good day to stay put at camp. But needing something to do, I set about nailing new shingles on the side of the cabin where the bear had torn shingles off. I thought to myself, "I'm going to fix that guy." After the shingle was nailed on I put another nail through so that it stuck out, hoping the sharpness of the nail would deter the bear from damaging the cabin. I've wondered if that worked, but have not been back to the cabin to find out.

Buckshot Camp was built in the early 1900's and had been used extensively by hunters from Yarmouth County. One window on the inside was most interesting, with it's autographs and dates of previous visitors.

With the snowfall the weather turned cold and starting out the following day the lake had a thin coating of ice. It was noisy breaking through the ice in the aluminum canoe, as we went along to tend the traps.

But the work got done.

The next day we packed up and headed out, presumably with less weight to carry - I don't remember for sure. Our timing was better and we reached Roseway Camp for an overnight stay. This camp was a little worse for wear, with gaps in the boards which formed the walls. There wasn't a lot of heat provided by the wood-stove, but it was better than being out in the open.

The following day was the last lap, carrying our packs and tramping over rough ground. I remember the very last part was extremely trying; there was no set path and one had to climb over alder bushes. I was never so glad to see a road and cried with relief to be back in civilisation. This trip has certainly stood out in my memory all these years. One thing that amazed me was that even though we were in that wilderness area we didn't see any wildlife other than the Beavers. Is this because if wildlife isn't used to people they stay clear of them? I have seen more wildlife in urban areas than I saw on that unforgettable trip.

GOT A NATURAL CURIOSITY? JOIN US IN THE FIELD

- Richard Beazley

From its beginning in October 1975 until this, the 40th anniversary year of the Halifax Field Naturalists (HFN), volunteer members have informed people about Nova Scotia's rich natural history and advocated for the protection of our natural heritage.

Through monthly field trips and presentations, we attempt to educate ourselves and others. Our field trips feature walks, hikes, and even ventures by canoe/kayak and snowshoes to various destinations with curious, friendly people and knowledgeable leaders.

For example, in October and then in November 2014 we visited a forest plantation in Lunenburg County to learn about reforestation, and then the old rock quarries at Purcell's Cove to hear about the quarrying of granite and slate for buildings in Halifax.

The illustrated talks at the Nova Scotia Museum of Natural History are presented by speakers whose work or leisure passions focus on topics like local flora, ocean biodiversity, wild bees, important bird areas in Nova Scotia, and naturalists' travels to exotic destinations. Recently, we saw and heard about mountain hiking in Nepal and all peoples' Right to a Healthy Environment. About 500 people attend these events each year.

For 40 years, HFN members have been involved in initiatives to conserve wilderness habitat and natural areas for low-impact recreational activities. For example, we urged HRM to create the Blue Mountain/Birch Cove Lakes Regional Park and an Urban Forest Master Plan.

On the provincial level, we advocated for the protection of at least 12 percent of the land mass of Nova Scotia by 2015, the "Buy Back the Mersey" campaign, the start up of the Nova Scotia Trails Federation, and the creation of the Five Bridge Lake Wilderness Area.

We also supported Nova Scotia Nature Trust (NSNT) work to conserve private lands with a donation that helped protect the Captain Arnell property, now a part of the Purcell's Cove Conservation Lands, and very recently we pledged a significant donation to the 100 Wild Islands Legacy Campaign.

As citizen scientists working together, we have engaged in hands-on activities such as conducting biota surveys on NSNT properties, thus making possible the monitoring of changes over time; [we also conducted and produced] the Point Pleasant Park [Bark Beetle Survey].

In 2004 HFN established the Colin Stewart Conservation Award both to honour Colin's prodigious legacy in Nova Scotia and to recognize significant, future conservation achievements by individuals and organisations.

In 2006, an HFN member, with the support of HFN, founded the Halifax Young Naturalists Club, which has now given over 1,000 children opportunities to learn about and connect with nature firsthand, with knowledgeable adult mentors. From this grew the provincial Young Naturalist Club with currently eight chapter clubs.

HFN shares and reports on its programme events, natural phenomena, Halifax tides, nature observations, its history, members' photos, and links to other nature organisations in a quarterly newsletter, The Halifax Field Naturalist. Also, you will find us on our website, **www.halifaxfieldnaturalists.ca**, and on Facebook.

HFN members will continue to educate the public about natural history, monitor protected lands, and advocate for additional land conservation. With pride in past accomplishments and an eye to the future, we celebrate this 40th Anniversary year with some special events. During the month of June, the Nova Scotia Museum of Natural History will host an art exhibit of HFN members' works about nature, and the celebrations will culminate on October 1st with a presentation by a special speaker and the awarding of the Colin Stewart Conservation Award for the ninth time.

Members of the public are cordially invited to our 40th Anniversary events and, of course, are also invited to become members of the Halifax Field Naturalists.

(Richard Beazley is a member of HFN'S 40th anniversary committee.)







HFN'S FOURTH DECADE

- Stephanie Robertson

PART I, THE FIRST FIVE YEARS

In the previous issue of The Halifax Field Naturalist (Winter 2014/2015) we gave an outline of the first two years of our fourth decade; below is a report of happenings and events in the following three.

WINTER 2007/2008 – On October 30th Blue Mountain/ Birch Cove was declared a protected wilderness area (bringing the goal of 12% of Nova Scotia to be protected close to 9%); Ship Harbour/Long Lake was being proposed for protection (the then Environment Minister Mark Parent called it "a Nova Scotia treasure"); and the Digby Neck 'mega-quarry' project had been quashed(!).

At the 2007 Friends of Point Pleasant Park (FPPP) AGM, then HRM Manager of Real Property Planning Peter Bigelow gave a lengthy and detailed status update on the park following the devastation of Hurricane Juan, specifically – the hiring of a new supervisor of the park, Stephen Rice; and rejuvenation plans by NIP Paysage from Montreal and Ekistics Design of Dartmouth (they won the park design competition) which were to be used as the basis for new park Master/Management Plans.

Talk Reports – At the October 2007 monthly meeting Jennifer Van Dommelen shared her experiences on a scientific **Antarctic Sea Cruise** on the Russian trawler Yuzhmorgeologiya, which embarked from the Chilean tip of South America. Her job was to elucidate and report on the relationships between zooplankton abundance (notably krill) and predator abundance, and the effects of commercial fisheries on the local marine food webs. In November, Laurie Lacey – writer, lecturer, and specialist in traditional native plant/tree medicines – gave a fascinating and informative presentation on **Native Plant Uses**. In December, we learned from Dalhousie PhD student Krista Patriquin all about **Bats** – their population strengths, behaviour, movements, echolocation, some conservation tips, and much more!

Field Trip Reports – We had a wonderful Shubenacadie Canal trip led by Bernie Hart of the Shubenacadie Canal Commission. It started with an indoor lecture on its history, followed by a sunny walk along the canal itself (Shubenacadie comes from the Mi'kmaq 'segubunakadik' meaning 'the place where the groundnuts grow'!). Birds and Beaches, specifically the Piping Plover, was our next field trip subject, at Martinique Beach, led by Jen Graham of EAC and Sue Abbott of Bird Studies Canada. A few were seen, and we learned about their behaviour, the dangers they face in raising young on public beaches, and what we can all do to help protect these dear little birds. In October,

we learned about Lichens in the Terence Bay Wilderness Area from the Dept. of Environment and Labour's ecologist Robert Cameron. This area receives so much rainfall it can technically be classified as a rainforest, which is ideal habitat for a great abundance of lichens, liverworts, and mosses. We identified 26 species of lichens alone! Patricia Chalmers, hoping for some rare bird sightings at Seaview **Park** before the onslaught of Hurricane Noel, but being thwarted in her birding attempts by an enthusiastic HRM employee (she "wasn't allowed on city property"?!), decided to list the many plants she noticed still in bloom. Out of 37 plants listed, 25 were identified as 'aliens' in Marion Zinc's edition of Roland's flora of Nova Scotia, and there was an unexpected find of Red Osier Dogwood. Lesley Jane Butters, with her unerring eye for the beauties of nature, and her great gift of being able to take us there with both her photos and her writing ability, submitted a pæan of a piece on The First Snow in Keji (after a 20 - 25 cm snowfall). This is definitely worth a 're-read' (Issue #129, p. 15).



SPRING 2008 – HFN's Board roster continued as before, but with the addition of Richard Beazley filling the previously vacant Secretarial Chair. February's rusty-red colour of the moon eclipse was explained by the amount of volcanic dust in our atmosphere; HRM's Horitcultural Department hosted an open house at both their Dartmouth and Halifax locations; opportunities were announced to help support the quashing of extending the gypsum quarries on the Avon Peninsula which would endanger the ecological profile of the area; and Nature Canada would host their 38th Conference and AGM in June in Montreal.

New strategies for Nova Scotia's natural resources were announced by DNR, and public input was called for by Nova Scotia Environment and Labour for new provincial water resource management strategies. It was reported that Jean Rivers Sawyer, 1948 - 2008, an avid plant naturalist and hiker, had passed away in February. Together with husband and naturalist Barry Sawyer, they had amassed a photo library of trips both local and abroad, plants, and nature, to share through their wonderful slide shows.

Year-end Reports – Finances – In 2007 our unrestricted assets were \$8,423.00 at the end of the fiscal year. Membership remained the same at 129. Programme – We had nine presentations and 17 field trips. Conservation - Conservation Chair Peter Webster attended the Nature Canada Conference hosted in Wolfville by the Nature Nova Scotia. HFN representatives and members were working diligently on the White's Point Quarry Review, the Blue Mountain/Birch Cove Lakes Protected Wilderness Area, the Chebucto Peninsula stewardship Charter, and McNab's Island Provincial Park. Bob and Wendy McDonald attended and reported on the talk "The Importance of Trees to Cities", by Dr. David Novak of the USDA Forest Service. The Colin Stewart Conservation Award went to the Ecology Action Centre, the largest conservation and environmental organisation in our province.

Talk Reports – On January 3rd, Gerry Lunn, Curator of Interpretation for the Maritime Museum of the Atlantic, presented in pictures and words a description of Alberta's wonderful **Waterton Lakes Park** in which he worked in the early 80s. **Jamaican Adventures** was our February

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7th presentation by HFNer Joan Czapalay who visited and taught there, no less than seven times, under the auspices of the World Bank Jamaica Project Fund. March 6th was our **AGM and Members' Slide Night** with presentations by Peter Webster (a Bolivian mountain climbing trip); Peter Payzant (a music-study trip to Japan); Lesley Jane Butters (awe-inspiring nature shots from Keji and the Valley); Chris Stoddard (south shore winter scenes); Karen McKendry (YNC field trips); Janet Dalton (the Purdon Conservation Area in Ontario); and Jack Warkentin (his trip to Cuba).

Field Trip Reports – September 22nd saw a trip to the Captain Arnell Lands to continue our biota survey. Seventy-nine plants and 23 bird species were observed and recorded up to and including this foray. Our Annual HFN/NSBS Sewer Stroll took place on January 26th with leaders Bob McDonald and Suzanne Borkowski; 49 birds were recorded. On February 9th we had a visit and field trip to the Hope for Wildlife Centre with leaders Burkhard and Ingrid Plache. Lots of information was shared and many rescued animals were seen at this wonderful facility which Hope Swinimer started in the early 1990s. On March 4th we hiked to Flat Lake starting out from the top of Oceanview Drive off Purcell's Cove Road, once again with Burkhard and Ingrid Plache. It was invigorating and fun, and 30 species of plants were seen and recorded.



SUMMER 2008 – On June 25th the final, comprehensive Plan for Point Pleasant Park was publicly presented by Peter Bigelow, Manager of Real Property Planning for HRM. In short, the report's recommendations were true to the sound environmental principles proposed earlier on. A public input session was announced by HRM for those who wished to have input before the official designation of Blue Mountain/Birch Cove as a Protected Wilderness Area.

Special Reports – 195 people attended the Halifax public meeting on the future of natural resources in Nova Scotia, from Grade One and Two students, to Dr. Wilfred Creighton (104 years old and previous Deputy Minister of DNR). He wisely noted "successive provincial governments have shown little appreciation for the value of our forests".

Talk Reports – On the 1st of May, we were given an especially exciting presentation by Bob and Wendy McDonald about their **Birding Trip to Ethiopia**. Multitudes of very different birds were seen and photographed, along with many other species of wildlife.

Field Trip Reports – On May 4th another biota survey field trip was carried out in the **Captain Arnell Lands**; additional to the last survey, 13 species of plants, six of insects, eight birds, one amphibian, one fungus, one moss, and some liverworts were recorded.

FALL 2008 – It had been a wonderful summer for both plants and animals, with lots of rain (but not too much) for roots, waterfowl, fruits, trees, and leaves. Our back garden Spy apple tree was particularly laden. A groundbreaking conference, "For Our Birds", was announced for November, 2008, focusing on the science and conservation of birds, engaging new people in bird conservation, and increasing public awareness about the need for it. HFN backed a proposed province-wide ban on the use of cosmetic and non-agricultural pesticides by Pesticide Free Nova Scotia with a letter of support to the provincial government. The

Cornell 2009 Back Yard Bird Count was announced so that people could begin planning for it.

Special Reports – We printed David Patriquin's July, 2008 impassioned and influential submission to Voluntary Planning, the Citizen's Policy Forum, on Nova Scotia's natural resources, another article worth a re-read *(Issue #132, p. 4).*

Special Articles – Taxonomy and the importance of 'getting it right' was explained by Ursula Grigg with outlines of superkingdoms, kingdoms, families, sub-families, and genus and species. David Patriquin submitted a **Point Pleasant Park Talk & Walk** report following Peter Bigelow's presentation on June 5th, outlining more details of future park management plans and why they were chosen.

Field Trip Reports - On June 14th botanist Ruth Newell, with the E.C. Smith Herbarium at Acadia University, led our visit to the 20-acre gypsum lands near Brooklyn, Hants County to talk about Limestone Flora and Chim**ney Swifts**. We marvelled at the rich vegetation (34 plant species were recorded) and interesting gypsum habitat, later going on to meet Jim Wolford at the chimney of the Robie Tufts Nature Centre to see the wondrous flight of the Chimney Swifts as they flew down into it to roost. Butterflies were the aim of our next trip on July 5th at the Uniacke Estate Museum Park. We had wonderful weather, but only one Wood Nymph was spotted, there were no Common Branded Skippers, and few fritillaries. Twenty-two species were recorded. On August 7th Bob and Wendy McDonald led us to Belcher's Marsh Park in the Glenbourne subdivision in the upper end of Clayton Park. The Halifax Northwest Trails Association, of which Bob and Wendy are stalwart members, are stewards of its marsh and pond, have carried out a flora inventory there (over 100 species have been observed), and helped with its two interpretive panels. Belcher's Marsh is a perfect example of how nature and development can happily co-exist. Shorebirds - On August 17th we went to Hartlen Point with longtime birder Fulton Lavender. On a sunny and breezy day we benefited from Fulton's extensive knowledge of birds and bird behaviour, while looking for the shorebirds expected there. Thirty-nine species of birds, along with a 'possible' sighting of a Clapper Rail, were recorded.



WINTER 2008/2009 – 2009 was the UNESCO International Year of Astronomy (IYA), a global celebration of the 400th anniversary of Galileo's first use of the telescope. In its honour, one of Astronomy Nova Scotia's projects was "Dark Skies Awareness". The loss of dark night skies is a serious issue impacting astronomy research, human health, ecology, safety, security, economics, and energy conservation. We received a letter of appreciation from HFNer Pat Leader for Ursula's Taxonomy article. The Halifax Public Libraries announced it had purchased over 300 children's titles on environmental issues with a generous grant from the TD Friends of the Environment Association.

Special Reports – Bedford Waterfront; Stage II With her usual humorous flair Pat Leader gave us all the history of what has been happening (and not happening), development-wise, with the Bedford Basin waterfront.

Talk Reports – On September 8th Dalhousie PhD student Susanna Fuller of the Ecology Action Centre gave

a presentation on Marine Diversity, sharing with us some of her lifelong fascination with sea creatures, describing the current state of marine habitats and populations, and outlining the respective roles of government agencies and conservation groups. On October 2nd we had vetinerarian Helene Van Doninck, an international teacher of Wildlife Rehabilitation, talk to us about her experiences in this admirable and necessary field, sharing many images of rescued wildlife. Helene founded, and operates, the Cobequid Wildlife Rehabilitation Centre. Nature Photography was the subject of our November 6th presentation, and was given by long time nature photographer and HFNer Keith Vaughan, who has had over 3,000 acceptances(!) of his work in international exhibitions. His selection of breathtaking, world-ranging slides had been compiled for a show which he had been invited to present a year after attending a photo conference in San Diego.

Field Trip Reports – Our September, October, and November field trips were **Tidepool Tiptoe**, **Bogs and Barrens**, and **McIntosh Run** respectively. The first took place at Martinique Beach with knowledgeable leader Cathy Fulton; we learned about intertidal zones, water salinity, and saw the many interesting creatures that adapt to and live in these marine areas. Geologist and botanist Janet McGinity led the October trip to the coastal bogs and barrens of Prospect Village, where we learned about its geologic history, and enjoyed discovering the native flora and fauna there. For the last trip, we met at the Roach's Pond Park to explore McIntosh Run near Spryfield. Kaarin Tae and John Brazner led us to this surprising wilderness – so close the the city! McIntosh Run Community Group is working to establish the trail as an 'official' one.

heavy

SPRING 2009 - The melting snow and ice of a heavy winter revealed many deleterious crusher-dust wash-outs in Point Pleasant Park (this is still happening in 2015). Crusher-dust (it comes pre-salted) is dumped on the park's roads by the tonne every year. Needless to say, these areas have their flora completely obliterated and permanently damaged. It was announced that the 2009 Nature NS Conference would be held in and around Wolfville on June 13th and 14th. The 2009 BioBlitz was to be organised by St. Mary's biologist Dr. Jeremy Lundholme on June 5th and 6th; he was to be in charge of organising the vascular plant group. EAC, St. Mary's, Dalhousie, and the Coastal Coalition of Nova Scotia partnered in a series of informative lectures about the province's beaches and how to protect them. We learned that field seminars in natural history, at a variety of levels, are offered by the Eagle Hill Foundation, near Acadia National Park, Maine.

David Patriquin took over the Presidency from Allan Robertson, and Allan became Past President. Bob McDonald (previous Past President) remained as a director. Brian Bartlett left the board, and Jim Medill joined, for a total of 12 directors.

Year-end Reports – Conservation – Our activities included working on Blue Mountain/Birch Cove Lakes, the Citizen's Policy Forum on a National Resource Strategy, the Sustainable Coastal Strategy, the McNab's Island Public Advisory Committee, and the Point Pleasant Park Advisory Committee. Colin Stewart Conservation Award – It went

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to Bob and Wendy McDonald. Bob has served on HFN's Board several times, and both have played leading roles advocating for Blue Mountain/Birch Cove Lakes to become a Protected Wilderness Area. They have been active in land-conservation campaigns, trail groups, breeding-bird atlas squares, presenting submissions to different levels of government about conservation, and are long-time occasional Piping Plover Guardians. **Membership** – Membership was down by two; from 129 to 127. **Programme** – There were nine monthly meetings and 15 field trips in 2008. **Finances** – In 2008, our unrestricted assets clocked in at \$8,324.00.

Talk Reports - Bob Branton, on behalf of senior scientist Ron D'Or, both of Dalhousie's Biology Department and the Census of Marine Life (COML), presented Our Oceans - Censusing Marine Life; Diversity, Distribution, and Abundance on December 4th. Begun in 2000, COML was a global ten-year initiative by over 2,000 researchers from 80 countries. Its aim was to assess the diversity, distribution, and abundance of life in our oceans - past, present, and future, encompassing several megascience projects involving many millions of dollars. One of the spin-off projects was the Ocean Tracking Network (OTN), headquartered at Dalhousie. Using tracking devices and sensors, animals were able to be followed globally throughout the world's oceans. On January 8th Grace and Richard Beazley gave a presentation on their exciting rafting trip on the Nahanni River near the southwest border of the Northwest Territories. We saw truly magnificent steep rock formations on either side of certain river sections, famous caves, Kraus Hotsprings, Nahanni Butte and many other wonders; this was a great presentation on a very distinctive area. Wild Nova Scotia was our February 3rd talk. Len Wagg, a Chronicle Herald photographer, had been taking spectacular photos of our province for more than 20 years, both aerially and at the level of a "Bullfrog's nose". We were shown some of his breathtaking pictures, which were also published in his Nova Scotia Landmarks: Portrait of a Province From the Air, and his Wild Nova Scotia which won the award for Excellence in Illustration at the 2008 Atlantic Book Awards. Members' Slide Night rounded out the winter meetings with beautiful presentations by Keith Vaughan (his favourite images of Nova Scotia), Richard Beazley (Autumn Reflections 2008), John Carpenter (central Brazil). Karen McKendry (snaps from YNC trips), Bob McDonald (southern Argentina and the Falklands), and Burkhard Plache (New Zealand).

Field Trip Reports – Our Annual HFN/NSBS Sewer Stroll to the usual spots around Halifax Harbour, finishing at Point Pleasant Park, took place on February 8th with leaders Suzanne Borkowski and Bob McDonald; a total of 59 species were recorded.



SUMMER 2009 – A rainy spring had brought forth many beautiful wildflowers in abundance; especially noted were Pink Lady's-slipper groupings along the south-end railway cut. Plans for the 'Urban Greenway' had not yet materialised (locals named it the the 'Grey Way' for the large swath of asphalt expected to replace the beautiful grass verge). Nature Canada was to have a new Executive Director in July – Ian Davidson, with an extensive background in

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Wildlife Management. Once again the Canadian Sea Turtle Network Volunteer Jellyfish Project, investigating variations in jellyfish populations, was to take place in July, their real focus being the Leatherback Turtle which feeds almost exculively on jellyfish.

Special Articles – "Species Lists, Love 'em or Hate 'em". Biologist Ursula Grigg expanded upon the reasons that species lists in their 'proper' order are important, with an amusing short history behind their use.

Talk Reports - On the 2nd of April Norman Green of the Friends of Keji organisation, gave a detailed and informative talk about all the conservation activities around Blanding's Turtles, one of the rarest turtles in Nova Scotia. We learned about their habitat requirements and what these turtles need to successfully nest, hatch, overwinter, and be protected from roadside accidents to their nesting sites. The volunteers, so necessary for this work, include graduate students, the general public, the Herpetological Society, Friends of Keji, wardens, and scientists. It happens in June and July and participants can take part from three days to three weeks. On May 7th HFN member Shirley McIntyre gave us a wonderful show of Swiss alpine glory, with dizzying and breathtaking shots from various heights and places in **Switzerland**. Shirley is an avid hiker and went there on tour with ten others.

Field Trip Reports – On March 15th we had Long Lake Lichens with knowledgeable biologist and mycologist Frances Anderson. After viewing and talking about the different traits of many Nova Scotia lichens, we briefly discussed chemical tests which could be used on those more difficult to identify. The Sackville River Trail was our April 4th trip with leaders Walter Regan (President of the Sackville Rivers Association [SRA]), naturalist Sebastian Marquis, and SRA coordinator Steve Caines. SRA's aim is to keep the river ecolgically friendly to salmon and other wild river life. They have conducted many projects, and use the successful reintroduction of spawning salmon as a measure of the river's viability. On April 19th 35 people went to study Bay of Fundy Minerals with Ronnie Van Dommelen, to whit: manganite, ulexite, gypsum, fluorite, anhydrite, calcite, and howlite, and how and why these particular minerals were found here. The wetlands of the Greenwing Legacy Centre at Shubenacadie Provincial Wildlife Park was our objective on May 17th with leader Stephanie Patriquin. The Centre opened in 2006 in partnership with Ducks Unlimited and the Province of Nova Scotia. It is one of 1,600 Ducks Unlimited projects in Atlantic Canada. We enjoyed handson activities with dip nets and learned about the necessity of wetlands for many forms of life, including birds. Fortythree species of birds, plants, and insects were reported. Canoeing Shubenacadie with Burkhard and Ingrid Plache was our trip on June 6th. The cold, heavy rain thankfully diminished to nothing in our first hour of canoeing. We paddled by beauteous riverbanks marvelling at the magnificent White Pines hanging low over the river, Canada Geese other birds, and the many plants along the way. The banks and gravelly islets had lots of Royal Fern, and we saw and heard at least two Kildeer. Wonderful!



Fall 2009 – A biota report of the post-fire Captain Arnell Lands revealed nature's amazing regenerative ability after

Talk Reports - Labrador Travels and 2008 in Pictures were reported in the Fall 2009 issue. In August 2008 Burkhard and Ingrid Plache travelled by car, coastal ferry, and airplane to reach Nain, Labrador. They experienced gravel road driving, passing through boggy Black Spruce forests on the way to Churchill Falls. They saw a herd of Woodland Caribou, and photgraphed four young Wolves. They sailed on the supply freighter MV Northern Ranger through Hamilton Inlet out to Groswater Bay. Ingrid showed her interest in wildflowers with many beautiful images, and they drank tea made from the leaves of Labrador Tea, Rhodendron grænlandica. They found it to be a vast, wild land still largely unspoiled and yet at the same time the site of some of the largest industrial projects in Canada. 2008 in Pictures - David Chiasson and his partner Heidi made a point of hiking, kayaking, and canoeing every single weekend of the year; 49 of those weekends were in Nova Scotia and it was well documented with thousands of photos. It required much planning, and he had made spreadsheets outlining all 52 weekends. It all paid off - they had safe sojourning, even around high islands and dangerous oceans, and we sat back, entranced, as we watched his glorious slideshow accompanied by the music of Loreena McKennit.

Field Trip Reports – The post-fire Arnell Lands Biota Survey boasted 17 species of plants; some parts of the area had been consumed - some not. Butterflies with Peter and Linda Payzant took place on July 11th at our usual spot, Uniacke Estate Museum Park, and - there were very few butterflies to be seen. Rain had flooded some of the area (this trip was the alternate date offered as the first one was rained out), but there were lots of Ebony Jewelwings (damsel-flies) patrolling sunny spots, the males' irridescent green bodies sparkling in the sunlight; twelve species were recorded. Ralph Stea, with the N.S. Department of Natural Resources, presented Rapidly Changing Landscapes on a hike along sections of Shubenacadie Canal. We learned all about its interesting geological and glacial history, and how it shaped what we find there today. On August 8th we went to Martinique Beach. Twenty-three of us joined Sue Abbott of Bird Studies Canada for this eniovable, sunny trip. The beach is a designated Important Bird Area (IBA) which lies along a major migration corridor named the Atlantic Flyway, and is the longest white sand beach in the province. Besides the usual seabirds, a Nelson's Sharp-tailed Sparrow was sighted, and a group of ± 40 Semipalmated Plovers were spotted on the wet sand. Two Whimbrels were also seen, with their long, decurved beaks and distinct eyebrows. On September 13th we went to Gaff Point with leader Paul MacDonald, meeting at Hirtle's Beach. The usual beach, dune, and boardwalk configurations had been drastically changed by tropical storms Bill and Dan, and sometime into the walk there was a downpour! Berries picked along the hike were a treat, and we saw many points of interest such as West Ironbound Island, and Mosher's Island in a distant fog. Twenty-four plant species and 11

animals (including birds) were recorded.

YNC Field Trip Reports – Young naturalists submitted some write-ups to the Halifax Field Naturalist: Bronwyn on Winter Survival Tips, Toren E. Hynes on Winter and Summer Survival, Karen McKendry and young participants on a Purcell's Pond trip, and Emma on the Salamander Night Hike. These were accompanied by charming sketches and a salamander photo.



WINTER 2009/2010 – Some internet sites one could access regarding weather data were listed in the Editorial. Blue Mountain/Birch Cove Lakes area was threatened by a new development proposal making its way through City Hall, endangering the integrity of the entire Regional Plan.

Special Reports – All the latest changes and plans to the Bedford Waterfront were outlined by Patrica Leader, specifically the continuing saga of the development, and/or delayed development, of the public walkway.

Talk Reports - Biology Adventures. On October 1st Karen McKendry shared with us her adventures along the way to her Masters degree in Environmental Studies from Dalhousie. Growing up in Quebec, she spent many happy summers at her family's cottage in 300 acres of forest, ponds, and even a small mountain. This was her background as her interests progressed through marine biology, herpetology, ecology, then to nature conservation. Karen shared with us her 'biology project' adventures on the Rideau River, and an exciting Canadian Field Studies Project in Kenya. She finished her programme in Guelph, then worked on several contracts, one of which was on the endangered Garry Oaks in British Columbia, and another a stint with the Museum of Nature in Ottawa classifying Arctic invertebrate samples which led to Arctic trips. In 2006 Karen came to Nova Scotia and after completing her Master's programme has worked with N.S. Nature Trust, and provides a 'mentor role' for the Young Naturalists Club, which she initiated. On November 5th Sarah Chisholm shared her Arctic and Antarctic adventures with Life at The Poles while on contract with the Canadian Wildlife Service. She studied Northern Fulmar on Devon Island, had two adventurous seasons in Antarctica focusing on Chinstrap and Gentoo Penguins, and further adventures as a Park Warden in Auyuittug National Park in Nunavut.

Field Trip Reports – On Sunday October 8th we offered another trip to Purcell's Cove Conservation Lands with leader and interpreter Bob McDonald. Forty-two macrolichens were observed (three of them were new records for HRM), four birds, two new flowering plants, 18 regeneration species after the fire, and one Lepidoptera - a Mourning Cloak, Nymphalis antiope. Long Lake Provincial Park was our November 8th field trip with leader Peter Webster. These beautiful and diverse woodlands contain old-growth pines, geocaches, mosses and lichens, and Beaver dams. Long-time avid birder and HFNer Bernice Moores visited the 'cloud kingdom' of Bhutan (also known as the last Shangri La) in the eastern Himalayas, a trip organised by the International Crane Foundation. Led by co-founder Dr. George Archibald, a Nova Scotian, she was one of 14 participants. The article was a fascinating description of the world's youngest democracy, a mostly Buddhist culture. Bhutan boasts more than 700 bird species. Three seen by

the group were the Black-necked Crane, the White-bellied Heron, and the Ibisbill, beautifullv illustrated for us by her granddaughter Jennifer.



SPRING 2010 - Sable Island was being considered for National Park or Wildlife Area status. Bridget Stutchberry was to present the research behind her book Silence of the Songbirds at Dalhousie. Nature Nova Scotia's Conference and AGM was to be held this year on the Eastern Shore, joining the St. Mary's River Association and the Nova Scotia Nature Trust. Ocean's Day was to be celebrated at the Maritime Museum of the Atlantic on June 4th, and on June 5th – the popular yearly Harriet Irving botanical Garden Plant Sale. The five-year initiative of the Maritime Butterfly Atlas was launched by the Atlantic Canada Conservation Data Centre. Nova Scotia's own Dr. George Archibald was to be the featured speaker at the 2010 Nature Trust dinner. The Nova Scotia government declared coastal management a priority with the release of its "State of Nova Scotia's Coasts" report.

David Patriquin remained President. Peter Webster stepped down, leaving the post of Vice-President vacant. Lesley Jane Butters joined the Board, making a total of 12 Executive Members.

SPECIAL REPORTS – **Conservation** – HFN continued to work on and support Blue Moutain/Birch Cove Lakes, protection of the central Chebucto Peninsula as a Wilderness Protected Area, McNab's Island, and Phase 2 of the N.S Natural Resources Strategy Forum, specifically on biodiversity and a Provincial Parks Policy. The Colin Stewart Forest Forum Final Report was released. **Membership** – Memberships were down by six – from 127 in 2008, to 121 in 2009. **Programme** – There were a total of nine talks and 23 field trips in 2008. **Finances** – Our unrestricted assets for 2009 were \$7,763.00.

The media frenzy, misreporting, and general lack of scientific rigour around the presence of the Brown Spruce Longhorn Beetle, rebutted and made clear by entomologist Christopher Majka, was presented in "Beetle-mania - Again". The Five Bridges Lakes of HRM was to be declared a Wilderness Area by the province. Calls for public input were tendered and were to be submitted before April 30th. On Friday, March 5th, at the Nova Scotia Public Archives the Nova Scotia Environmental Awards were given out. The awards went to Beth McGee of the Five Bridges Heritage Trust; the Avon Peninsula Watershed Preservation Society; Marilyn Cameron, Chair of the Biosolids & Wastewater Group; Helen Jones and Maureen Reynolds of Real Alternatives to Toxics in the Environment; Ikanawtiket of the Initiative of the Maritime Aboriginal Peoples' Council; Janice Ashworth with the Energy Issues Committee of the EAC; Mark Parent, former Conservative N.S. Minister of the Environment and Agriculture; and Jamie Simpson, Forestry Programme Coordinator, EAC.

Talk Reports – Urban Ecology was our December 4th presentation by Professor Jeremy Lundholm of St. Mary's University. His talk about different habitat types in and around Halifax was based on his four classifications – remnant habitats (such as Point Pleasant Park), converted habitats (such as vacant lots and crevices in sidewalks), constructed habitats (hard surfaces and roofs), and link/

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corridor habitats (which facilitate movement of species between larger habitat areas). On January 7th, we had a wonderful presentation on Sea Turtles by Laura Bennett of the Canadian Sea Turtle Network. Specifically, we learned about Green Turtles, Kemp's Ridleys, Loggerheads, and Leatherbacks - their needs, habitats, and what endangers their survival. Leatherbacks have been studied and followed the most extensively. On the 4th of February, we heard about the relationship between coffee plantations and the viability of songbird populations in Birds - and Coffee, by Mark Butler, EAC. Essentially, shade-grown coffee protects songbird habitat; plantation coffee compromises it. March 4th was our annual **AGM and Members' Slide Night**. We were shown some breathtaking pictures by Jack Warkentin (plants, birds, and scenery from far and wide), Maryann Burbridge (animals photographed on her world travels), Lesley Jane Butters (a wide range of exquisite photos of nature subjects), Charles Cron (a Churchill, Manitoba Polar Bear trip), Ingrid Plache (islands in the North Sea off the

HFN TALKS

CONSERVATION LANDS

7 JAN. – Lillian Risley

Karen McKendry introduced "Your Conservation Lands" by describing the Nova Scotia Nature Trust and its activities. The Nature Trust is a registered charity, relying on donations, grants, and other revenue sources to fund their work. It has a nine-member Board of Directors, a staff of 12, and more than 100 volunteers. Operating as a land trust, its focus is on protecting lands of outstanding nature conservation importance, such as wildlife habitat for species at risk. It also creates opportunities for people to enjoy and observe these special lands and the wildlife they support.

The Nature Trust is in its 20th year and has formally protected 69 conservation lands containing 9,253 acres located across Nova Scotia. NSNT has had a special focus on rare, threatened, or irreplaceable sites that are critical for wildlife and plants. Some examples are nesting sites for Blanding's Turtles (to which females return every year); properties with habitat for birds; old-growth forests (which now likely make up less than 1% of our wooded areas); coastal islands that are often privately owned and subject to development; and areas which are vital to maintaining freshwater resources, such as river headwaters. Through protection efforts such as these, the Nature Trust is creating a brighter future for the survival of all species. Following are some of the activities that have been undertaken.

In 1995, Brothers' Islands were the first property to be protected. They were donated by the late Jack Herbin, whose father had purchased the islands in 1898. Herbin had enjoyed exploring the islands during his lifetime, but when he heard of the inception of the Nature Trust he offered to donate this property and it became the Nature Trust's first acquisition. Not far from Parrsboro, these two tidal islands, totalling just 15 acres, are significant because they include coastal old-growth hardwood forest and uncommon plants, including Purple Trillium and Canada Yew. Bird species nesting on the Islands are Bald Eagles, Common Elders, Black Guillemots, and gulls. There is also a possibility the cliffs would be suitable nesting sites for Peregrine Falcons. coast of Holland, and Bob McDonald (images of South Georgia Island and the Falklands from an Antarctic tour, including penguins and seals).

Field Trip Reports – On January 24th, botanists Marion Munro and Frances Anderson conducted us on **An After**noon at the Museum where we were able to see lichen specimens from the museum's storage cabinets, with both macro- and micro-lenses (microscopes). Our **Annual Sew**er Stroll on February 13th with leader Suzanne Borkowski boasted 44 species, including three scoter species, two Rough-legged Hawks, a Peregrine Falcon, and at Point Pleasant Park – Purple Sandpipers.



Another example is the McGowan Lake Turtle Sanctuary in southwest Nova Scotia, which includes five and a half kilometres of undeveloped shoreline and one of the province's most critical nesting sites for the endangered Blanding's Turtle. This lake is well known to researchers, as it supports many turtles and their nesting site, but on private lands, where they are not as protected as they are in the nearby Keji National Park. The NSNT had a time-limited opportunity to purchase an incredibly important property on the lake from a landowner there, and a campaign was launched to raise funds necessary for this purchase. Thanks to an outpouring of community support (more than 300 people donated to the campaign) the property was acquired, and is now a safe home for Blanding's hatchlings Squirt, Lumpy, and Dilly.

The acquisition of Gaff Point, near Kingsburg was accomplished by a partnership arrangement The Nature Trust, the Kingsburg Coastal Conservancy, and the Nature Conservancy of Canada joined forces to secure the 23 lots that comprised the property, protecting the entire headland, and creating a hiking trail that is used all year round by many hikers.

In 2006, Sandy Cameron, MLA for the St. Mary's River area, initiated a campaign to protect its habitat, especially the shorelines, with an initial donation. Not only were Atlantic Salmon in trouble there, but also, this river was key to the survival of other endangered species, including the Wood Turtle as well as old-growth and Acadian floodplain forests and freshwater riparian habitat. Now, six relatively close together properties create a land assemblage of protected areas along the West and Main Branches of the St. Mary's and more progress is anticipated.

In 2009 NSNT used a different process to expand its holdings. Jack and Darlene Stone, strong supporters of the Nature Trust, found a special way to add to its areas. They donated lands which were not of a high conservation value but could be sold by NSNT, with the proceeds to be used to protect property with a greater conservation value. In addition, the Stones made the Nature Trust the beneficiary of a life insurance policy and on Jack's death, this insurance







enabled the Nature Trust to obtain an outstanding property on the Tusket River. This property's five-kilometre shoreline includes three lakes and provides critical habitat for at-risk Atlantic Coastal Plain flora. Within the first year of this acquisition the Maleberry, a species new to Canada, was found within the property's forest.

In 2012 NSNT became the first land trust in Canada to protect land owned by a university (Acadia University) -Bon Portage Island. It is home to 50,000 breeding pairs of Leach's Storm Petrels and has recorded visits of more than 265 species of migratory birds. The Island will continue to be a research and educational site for Acadia University and for researchers from around the world. There is a long history of HFN members visiting the island and Karen urged everyone who visits in the future to submit any bird lists or sightings they have to the Nature Trust in order to enhance the understanding and management of the property.

Karen also described the project called "Our 100 Wild Islands Legacy Campaign". The area encompassing this undertaking would stretch from Clam Harbour Beach to Taylor Head, and include Murphy's Cove, Tangier, and Ship Harbour. These islands support several bird species such as the Common Eider and Harlequin Ducks, and rare plants, including the Blue Felt Lichen. It's a large, undeveloped group of islands, perhaps one of the few remaining in North America. The outcome of studies and dialogue with local owners brought about a plan for the future of this outstanding property. The N.S. Provincial Government will protect all of the Crown-owned islands, and private landowners will receive cash or charitable tax receipts for protecting their land through a land trust. Best of all, the Trust had a benefactor who provided financial support for all the groundwork required to launch a public fund-raising campaign - a campaign which began in June of 2014 and had raised \$6 million of the \$7 million goal by January 2015.

From its inception the Nature Trust has been committed to protecting land for wildlife and to making as much of its holdings accessible to the public as possible. The Nature Trust's conservation lands are held under three arrangements. About half are owned by the Nature Trust itself and about 20% of the lands have had their ownership transferred to the Crown (Province of Nova Scotia) with Wilderness Area or Nature Reserve designations. The remaining lands are managed under conservation easements. This last arrangement allows the land title to remain with the original owner, but restricts activities that would be incompatible with managing the property for biodiversity conservation. This option increases the potential for conservation of valuable lands which might otherwise lose that protection sometime down the road when the property could change hands.

When NSNT lands remain in private hands visitors must ask for permission before visiting such properties. Because of the broad spectrum of all of the Nature Trust's holdings, visitors may not be aware of the specific sensitivities in particular habitats and could unintentionally cause damage.

Every spring a calendar of guided walks and other events is published by the Trust and it is very helpful, both for identifying opportunities to get out into the natural world and for preventing unintended stress or damage to the flora and fauna encountered. You would be most welcome to contact the Nature Trust to get your own copy.

Following Karen's talk, members of the audience were divided into small groups to examine different scenarios

regarding putting property into a land trust. We were given information about the likely costs associated with becoming involved in private land conservation, such as surveys, appraisals, and stewardship. We had information regarding incentives for things such as tax credits or related funding programs. Each group discussed the options for their property and made a decision. The outcomes were shared with the other groups and discussed briefly. In general, we came to realise that there are many facets which require decisions and that making the final choices in real life would take some care and knowledgeable advice.

CLIMATE CHANGE

5 FE - Gillian Webster

Twenty-eight people attended Dr. Tom Duck's talk at the Nova Scotia Museum of Natural History – aptly, in blizzard conditions!

An Associate Professor in the Department of Physics and Atmospheric Science at Dalhousie University, Dr. Duck specialises in Arctic climate and air quality, and also operates an atmospheric observatory in the Dunn Building. He was a co-investigator for the successful Phoenix Mars Scout mission in 2008, and is a fellow of the Broadbent Institute, which strives to create a better and more compassionate Canada.

Dr. Duck provided an overview of climate change in Canada. Including the Maritimes, he highlighted problems arising from government cutbacks to environmental monitoring programmes, such as Dalhousie's Atmospheric-Optics Lab, of which he was the director. Eighty per cent of Canadian material on climate change is not released to the public. He is very concerned that public knowledge of the challenges presented by climate change is severely affected and limited by the federal cutbacks to programmes such as his Atmospheric-Optics Lab and other climate change fields and reports from scientists.

"Climate is what you expect and weather is what you get", he said as he outlined for us the rate of rising sea levels around the world. In 2000 there was an increase of 30 cm, and ever since that time there has been a rise of 3 mm more every year. His charts explained the global risks we could expect by the year 2100 - compromising crops, urban water supplys, and displacement of people, all of which will engender violent conflicts. A two percent increase in global temperature must be taken into account for all parameters, including adaptation by people. A four percent increase in global temperature would see even more changes to these parameters. Tom emphasised that these increases are dependent on how we adapt positively to restore balance. Even with a two percent increase on the horizon, we can slow that rate of increase by conserving our habitats, e.g. our lakes and other fresh water sources. We need to increase our resiliency as well as the resiliency of the planet, if we are to maintain or improve current levels.

By 2100, with a two-degree temperature increase around the world, we are looking at global sea levels rising by a half metre or more; a four-degree rise in global ocean temperatures would mean that sea level rise could double that. Tom pointed out that even worse scenarios could be possible if the icecaps in Greenland collapse, creating a pos-









sible six-metre rise in sea levels by 2100. Although unlikely, he also said that if Antarctica ice disintegrates as well, the result could mean a 50-metre rise in sea level by 2100!

Tom also talked about the effect of greenhouse gases, pointing out that 35 percent of these gases come from electricity and other heat sources used by humans, while 24 percent of greenhouse gases come from agriculture, decreases in forest cover, and other poor land use practices. Twenty-one percent comes from industry, while 14 percent comes from transportation. A further 6.4 percent comes from buildings, infrastructure, and human technology, and agriculture.

What are our mitigation options? For energy sources, these include solar, wind, tidal, and nuclear options, as well as being more energy efficient with resources that we already have in use. Mitigation would ideally include a carbon tax as well. An interesting fact that Tom mentioned is that in 2008/09, due to the recession, we emitted less greenhouse gases because of the poor economy!

We need an evidence-based national conversation on how to combat climate change. Tom emphasised that citizens need to push for this, since governments are unlikely to act on their own. Insurance industries are also clamouring for historical climate change facts disclosure, since the number of claims is rising from weather disasters such as flooding, etc. Finally, Dr. Duck said we *could* stabilise global climate at 2015 levels, but it would take a lot of work.

There are helpful organisations such as Ecology Action Centre that need the wisdom of older adults. If combined with the energy of youth (such as we find in EAC), Tom is hopeful that this fusion could lead to passionate discussions that would be heard on the national stage. He mentioned Bullfrog Power in Ontario, which is a Canadian 100 percent green energy provider, offering renewable energy solutions that allow homes and businesses to reduce their environmental impact. (For more information on this, see http:// blog.bullfrogpower.com/?cat=4&paged=6.)

A member of the audience mentioned that in the fall of 2010, the Dalhousie College of Sustainability launched a blog about upcoming information it would provide. For example, by clicking on https://blogs.dal.ca/sustainabili-tynews/ you can see links to up and coming events. For example, the DSU Sustainability Office and the Dalhousie Office of Sustainability hosted an interactive live-stream of the University of Toronto's Town Hall of Climate Change. This took place at the Schulich School of Law on March 2nd. If you couldn't make it in person, visit https://blogs.dal.ca/sustainabilitynews/2015/02/24/federal-pre-election-town-hall-on-climate-change-march-2-2015/.

Anyone can sign up to this Dalhousie Office of Sustainability blog. As a subscriber, you will receive a single email daily containing all blog posts published the day before. It will include news conferences and programmes, contests, and opinion pieces. Please direct any questions or blog submissions to **rethink@dal.ca**.



MEMBERS' PHOTO NIGHT 5 MAR.

– Clarence Stevens

The Member Photo portion of our March meeting was kicked off by **Lesley Jane Butters** who shared with us 76 images that began with her love of ice and the patterns therein frozen in time. It then progressed to shapes hidden in nature, captured first by her attentive eyes and then her camera. Her presentation covered many of the main aspects of nature from the world of the insect to the realm of Red-bellied Newt. Her photos danced across the province from Kejimkujik National Park to Melmerby Beach and to many spots in between. Her images also allowed us a peek into the secret lives of the Blanding's, Painted, and Snapping Turtles. Her wide selection of botanical slides included images ranging from trees to wildflowers, lichens to mushrooms, and vines to bushes – both garden and wild varieties.

Lesley capped her slide show with two video clips – one of the spectacle of the annual North American Fall Shorebird Migration as viewed from near Boot Island on the Bay of Fundy – and one of a Beaver, out in the winter woods felling a tree, near Black River Lake in Kings County.

Next, **Elliott and Judy Hayes** carried us on a canalrich cruise across much of eastern Europe. Their photos shared the many highlights from their 20-day adventure. Their river journey began in Amsterdam, a city they discovered is dominated by bicycles. There they boarded a 440 ft river runner and travelled down the Rhine Canal into the Rhine River, making their first stop in Cologne, Germany. This is where they saw what they jokingly described as ABC's (Another Bloody/Beautiful Cathedral). Next stop was medieval Miltenberg, known for its half-timbered houses and the oldest inn in Germany. Along the river they passed many clifftop castles including the Marksburg Castle, the only Rhine fortress that was never destroyed. River views also included steep-sided, vertically climbing vineyards.

Their next stop I believe was at The Lion Bridge in Wurzburg, Germany but at this point in their excellent presentation I must confess I started to get lost in the plethora of foreign sounding names. I do remember that they passed through 68 locks during their roughly 1,500 km journey. I resurfaced again in the Rhine/Main/Danube Canal near the confluence of the Rhine, Danube, and Main Rivers and I clearly recall the crossing of the German/Austrian boarder and a visit to the Melk Abbey in Austria which features Austria's finest Italian baroque architecture. The Haves were impressed at how clean and beautiful the monastery was and inquired how it was kept that way but the Benedictine Monks were not revealing any of their secrets that day. In Vienna they enjoyed a tour of Old Vienna before sailing on to Bratislava, Slovakia. There it was necessary to board a bus to Budapest due to a faulty lock preventing them from reaching Hungary via the Danube waterway. From Budapest they caught a very long, 23-hour flight home.

Third up was one of our newest members – **Molly LeBlanc**, who began by leaking the secret that Bunchberries, *Cornus canadensis*, are edible. Then under the category of 'sundew' she sneaked in a picture of Narrow-leaved Sundew, *Drosera intermedia*, just to see if we were alert enough to notice it was not the much more abundant and better known Round-leaved Sundew, *Drosera rotundifolia*.



Next she explained how she enticed a baby American Robin to pose for pictures by offering its mother earthworms. She also showed a very interesting portable chicken coop that is used as an environmental way to eliminate weeds. Scenic shots included kids leaning about nature, autumn leaves, and an ice-encrusted Multiflora Rose, Rosa multiflora. While the majority of her photos focused on Nova Scotia, she ended her presentation amongst the giant 'Redwoods' of British Columbia, more formally known as the Western Red Cedar, Thuja plicata (not to be confused with the Giant Redwoods of California, Sequoia sempervirens and Sequoiadendron giganteum.

Next on the docket was Burkhard Plache's themed presentation which submerged us into the watery world of aquatic plants. His images contained a small selection of aquatic wonders taken during a canoe trip to southwest Nova Scotia. First up was a nice photo of the Cow-lily, or Bull Head, Nuphar vareigata, clearly showing its large size and elongated leaves which separates it from Nova Scotia's smaller species - the Small Yellow Pond Lily, Nuphar microphylla and their hybrid, Nuphar x rubrodisca. He also provided visual and verbal comparisons to our White Water Lily, or Sweet Scented Water Lily, Nymphaea odorata. His depiction of the often overlooked tiny Water Shield, Brasenia schreberi, and their easily missed small pink blossoms was a real treat for me. And no Nova Scotia aquatic plant show would be complete without the inclusion of the colourful Pickerel Weed. Pontederia cordata.

As an additional treat. Burkhard's pics included the rare. white flower form of Pickerel Weed - albiflora, a white variety found only in a few select locations in the province.

Our fifth and final presenter was Peter Wells, a face familiar to many due in part to his November 2014 presentation to HFN titled "Give Me The Mountains". Once again Peter was anxious to share with us his love of mountains.



His images were like a mini-expedition of some of the most spectacular mountain tops of Western Canada and their associated crystal clear glacial lakes. He 'took us' to the turguoise waters of Emerald Lake in Yoho, which is a Cree expression for 'awe and wonder', and is home to the world famous Burgess Shale Fossil Beds.

We visited vivid blue waters of Berg Lake Mount in Robson Provincial Park, which is described as lying at the doorstep of Mount Robson, the highest peak in the Canadian Rockies. At Bow Lake in Banff National Park we viewed the rapidly receding Bow Glacier, origin of the mighty 587 km Bow River. We were also shown Egypt Lake, one of the most popular backcountry areas in Banff National Park, and witnessed reflections from the lesser known Pharaoh Lake. We travelled to the top of Mount Revelstoke in Mount Revelstoke National Park, famous for its giant trees (cedars & hemlocks), and for containing a part of the only temperate inland rain forest in the world.

One of his last Western Canada pictures was in the mighty Monashee Mountains, where we viewed a sunrise through forest smoke caused by summer fires which are common in that region.

The Nova Scotia portion of his presentation centred on water based reflections from in and around the Northwest Arm and Sir Sandford Fleming Park. It also included one of his most brilliant shots, which I felt really showed his creative side – a 'selfie' he took on Sable Island of his image reflected in a light bulb which had washed up on the beach of this world famous strip of sand.



ANNUAL SEWER STROLL

– Dennis Hippern

Date: Saturday, January 3rd Place: Around Halifax Harbour and Beford Basin Weather: Overcast, stiff North breeze, -12°C Leader: Dennis Hippern Participants: 20



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At 9:00 a.m. 20 intrepid birders met at McCormack's Beach Provincial Park, Eastern Passage, for the Nova Scotia Bird Society's and Halifax Field Naturalists' annual sewer stroll around Halifax Harbour and Bedford Basin. We travelled from Hartlen Point to the mouth of the Sackville River and then to Point Pleasant Park.

Checking out the usual stopping spots, we saw the familiar American Black Duck, American Crow, Bald Eagle, Black Guillemot, Blue Jay, Bufflehead, Canada Goose, Common Eider, Common Goldeneye, Great Black-backed, Herring, Iceland, and Ring-billed Gull, Greater and Lesser Scaup, Mallard, Red-breasted Merganser, Rock Pigeon, and Song Sparrow. In addition, Paolo Matteucci reported that he and others saw American Tree Sparrow, Hooded Merganser,

Raven, and Ring-necked Pheasant.

Highlight sightings included the following: Eurasian Kestrel and Northern Harrier at Hartlen Point; Surf Scoter and White-winged Scoter at Eastern Passage; Gadwall and Green-winged Teal at the Shearwater sewage treatment plant and outlet; Barrow's Goldeneye at Dartmouth Cove and the mouth of the Sackville River; Eurasian Widgeon and American Coot at Sullivan's Pond; Turkey Vulture soaring over Wardour Street in Bedford; and Black Scoter and Green-winged Teal at Point Pleasant Park.

During the trip the group's size slowly diminished, the remaining six troopers calling it a day at about 3:00 p.m. at Point Pleasant Park, by which time the temperature had risen to a balmy -9°C.

Thanks to all participants for maintaining their good humour in such chilly conditions.

P.S. We were surprised by a Global TV film crew that turned up in Eastern Passage to film our trip and interview some of us. We got our one minute of fame on the 6:00 p.m. news. In truth, I think they were drawn to the area by the Eurasian Kestrel at Hartlen Point.





OPPORTUNE SNOWSHOEING

– Richard Beazley



Dates: Mon. Feb. 2nd; Sat. Feb. 7th; & Sat. Mar. 7th Place: Uniacke Park; Jack Lake; & Sandy Lake Weather: Mostly cold Leader: Richard Beazley Participants: Three, one, and six; of which seven were HFN members

The first outing took place on a cold, clear morning at Uniacke Estate Museum Park when three HFN members joined me to snowshoe the Red Spruce Trail. Snow conditions were good and the old growth Acadian forest – with its Red Spruce, Eastern White Pine, Eastern Hemlock, Yellow Birch, and Balsam Fir, all partially cloaked in snow – was impressive. We could hear the wind making its special music in the tree tops while we were snugly protected below. Other than the sounds of the wind and us, the forest was quiet and peaceful. We saw neither bird nor animal, likely because our crunching movements alerted them to be still and invisible. Surprisingly, we did see a couple of Eastern White Cedar, which is considered to be a rare tree in Nova Scotia.

The second outing was a trek around the Jack Lake Trail in Bedford. Again, the morning was invitingly cold and crisp and the condition of the snow was very good – a nice layer of powder over a frozen base. Only one HFN member was able to join me – a pity. The looped trail is beautifully treed, mostly with old growth Eastern Hemlocks up to Jack Lake, and then with Red and Black Spruce on the second half of the loop back to the parking lot on Smith's Road. We ventured briefly along the eastern edge of Jack Lake to see it fully, and realised it was rather windy once out of the protection of the woods. This area right in Bedford itself has an interesting history of land deals between the Province of Nova Scotia, the Halifax Regional Municipality, and Sobey's. It can be found online; just Google 'Jack Lake, Bedford'.

The third outing took seven of us to Sandy Lake, Bedford, and then three of us around the Jack Lake Trail. The bright, sunny morning temperature was borderline cold (-3°C) and the snow conditions varied – from much too heavily travelled and littered with doggy-do to Sandy Lake - to very good on the Jack Lake Trail. The very large Eastern White Pines near Sandy Lake are outstanding. in themselves making the trip worthwhile. The Sandy Lake area is one with a history of controversy among nearby residents, Farmer's Dairy, Bedford Lion's Club, ATV drivers, mountain bike riders, hikers, dog walkers, swimmers, power boat owners, and perhaps others; Google 'History, Sandy Lake Conservation, Bedford'. Adult snowshoers enjoyed having the company of a seven-year-old girl on the first leg of the outing, and they took the opportunity to introduce her to some tree identification facts. Unfortunately, birds which she wanted to see stayed hidden, and dogs she did not want to see were all too present. It was a pleasure to meet a budding young naturalist! And, it was a pleasure to introduce another person to Jack Lake.

THE AQUATRON LABORATRY

– Rachelle Watts

Date: Thursday, February 12th Place: Dalhousie University Weather: A sunny winter day Leader: John Batt Participants: 15



The Aquatron Laboratory in Dalhousie's Oceanography building consists of a water treatment facility, academic learning facilities, research wet labs, and six large tanks holding more than two million litres of water. A pumphouse located on the Northwest Arm supplies seawater to the building via under-street pipes. Participants were surprised and impressed by the feel of water flowing beneath their feet and the artificially grown salt marsh grasses in the tanks of re-created salt marshes. Freshwater is also supplied – from dechlorinated, domestic city water.

This facility is used by Dalhousie professors and students, as well as professors from other universities. Different industries also use it, with some companies renting it from Dal in order to do their own developmental research. But of course, academic research is prioritised, as it enhances student experience and supports the work of students and staff. All users pay user fees, but they differ between internal versus external clients. There is an Animal Ethics Committee which closely monitors the wellbeing of the animals being studied, and additional support is provided on site by the university veterinarian.

The Aquatron Laboratory has new tank facilities in the recently completed Steele Ocean Sciences Building. The Ocean Tracking Network, which tracks animals wearing sensors and tags, is also located there; these tags can be monitored by satellite. The Ocean Tracking Network follows animals such as salmon, tuna, turtles, and seals. It connects to the east coast and the west coast, as well as to international sites such as Africa and Australia. The marine library, situated at the end of the campus, is one of the finest in the world.

The filled tour was informative and interesting. Of special interest to some was the pumping of seawater under South Street to and from the Northwest Arm. We heard interesting tidbits about sea animal behavior and the risks associated with bringing in animals from the wild for purposes of research. Examples of current research are: the cuttlefish, having developed an eye similar to ours; and the zebra fish, a major medical model for research.

The tower tank is ten metres deep and 12 feet in diameter, and is the only such tank in the world, the exception being naval tanks for the training of divers. The pool tank, with a smaller pool next to it, was designed in the 60's and built in the 70's. It measures 50 ft in diameter, is about 12 ft deep, and is the largest fish research tank in Canada and possibly in North America. It's equipped with a rotating horizontal bridge enabling researchers to position themselves above the water at all points; as well, there are below-level port holes for observation.

John Batt, manager of the facility, was well versed in details and presented them with a sense of humor. We learned much about a facility which apparently remains unknown to many who live nearby, and the tour was much enjoyed by everyone.



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NATURE NOTES

– Allan Robertson

JANUARY

Stephanie Robertson had a number of pansies in plant pots on her back deck which were still in bloom. She also had a group of American Goldfinches at her bird feeder, identifying them as females. Janet Dalton recalled that she used to identify all winter American Goldfinches at her feeder as females, before learning that in winter the males lose a lot of their breeding plumage. This led to the conclusion that perhaps both genders were present at Stephanie's feeder.

Recently Lesley Jane Butters saw an Otter on the North West Arm diving for crabs; it took its harvest to the Waegwoltic wharf to eat. She also saw a pair of Northern Cardinals on Wolfville Ridge in mid-December.

David Patriquin reported seeing a Red-bellied Woodpecker, and Allan and Stephanie Robertson saw a Pileated Woodpecker and a Barred Owl on the North West Arm side of the Point Pleasant Park.

Pat Leader reported seeing five White-tailed Deer in Hemlock Ravine recently, as well as **four** eating in her back garden. John Davies saw a Pileated Woodpecker at his feeder in downtown Dartmouth recently, and also had a Northern Flicker at the same feeder.

Arthur Morris reported that the day after hunting season closed, he had four White-tailed Deer walk through his back garden - for the second season in a row. Shirley McIntyre said that when out on New Year's levies, she saw a Pileated Woodpecker on a power pole.



Burkhard Plache reported seeing an accumulation of plants growing on the edge of the Frog Pond. He said they looked like plants used in aguaria, and another member solved the mystery – it was Carolina Fanwort, Cabomba caroliniana, an exotic plant for Nova Scotia (will it become invasive? - Ed.).

Dennis Hippern saw a Turkey Vulture this past weekend in Bedford, as well as a pair of Northern Cardinals on New Years Day. Gareth Harding reported a number of birds at his feeder recently - Song Sparrows, American Goldfinches, Northern Cardinals, a Red-bellied Woodpecker (Melanerpes carolinus), and Black-capped Chickadees.

Marion Sensen said two days after Boxing Day she saw four spring-type Dandelions growing along Dunbrack Street and Flamingo Drive, as well as many birds - Song Sparrows, Dark-eyed Juncos, Mourning Doves, and American Goldfinches.



FEBRUARY Bob McDonald said we were having a 'Bohemian Waxwing winter'! He saw some a few days before at the library on Lacewood Drive eating Canada Holly berries, and on February 5th, he saw a flock of over a thousand in Lower Sackville. It also appears to be a 'small finch winter', as on the same day he had 30 American Goldfinches, 15 Pine Siskins, and a dozen Common Redpolls at his feeder. During a discussion about the differences between Bohemian and Cedar Waxwings, he pointed out that the Cedars breed in Nova Scotia before heading south, whereas their Bohemian cousins breed in northwestern North

America and in winter disburse throughout the continent in search of food. One easy way to tell the difference is to note the rusty-coloured undertail on the Bohemian variety.

Brian Bartlett reported that over a span of three weekends to see birds at Hartlen Point, he saw a Snowy Owl and many Canada Geese - 77 in total.

Dr. Peter Wells, who couldn't attend February's meeting, submitted this e-nature note: "There has been a male Northern Cardinal in my garden (very close to Fleming Park) and around my feeder for the past two weeks - for the first time in 29 years! Of course, I don't stand by my kitchen window 24/7; I could have had a California Condor and missed it!"



Clarence Stevens reported seeing a Eurasian Kestrel at Hartlen Point. He indicated that Northern Cardinals have begun their spring whistling, Ravens have started laying eggs, and some Great-horned Owls already have young in the nest. Clarence also told of seeing a 'ghost Moose' one with white hair. This occurs when the animals perform excessive grooming to rub off winter ticks, and the outside layers of hair get removed. The hair closest to the skin is whiter, producing a ghost-like appearance. The best time to see ghost Moose is in March and April.

John Cunningham saw lots of redpolls at his feeder mixed in with American Goldfinches. Susan Clark observed six American Robins feeding in a holly bush in Clayton Park, as well as a male Northern Cardinal. Judy Hayes counted nine species at her feeders recently, the most colourful being Northern Cardinals, American Robins, waxwings, and a lone Sharp-shinned Hawk.

Nancy Covington saw a Red-tailed Hawk while snowshoeing on Long Lake. Iain Taylor reported to Stephanie Robertson that a pair of Cardinals was in his back garden along Chain Rock Drive, as well as a Ruffed Grouse sheltering under large, dense Juniper bushes in their front garden.

While on a trek on Long Lake in the Mount Uniacke area recently, Leslie Jane Butters saw Moose and Snowshoe Hare tracks, but no evidence of coyotes. That same evening, just after sunset, she was enthralled by the beauty of the Moon, Mars, and Venus in very close proximity. A few days later, she observed a Crow making a nest on Jubilee Road near Walnut Street.

Janet Dalton reported seeing hundreds of Crows one evening at Bayers Lake, probably on their way to their roost at Mount St. Vincent. She also reported that the Northwest Arm is frozen from the Armdale Rotary all the way to the Dingle Park, with little or no evidence of tidal rise and fall along the shorelines. Clarence Stevens Sr. reported seeing Northern Goshawks, Sharp-shinned Hawks, and a Red Fox (with black legs) at Hartlen Point.

Regine Maass saw ducks on the Northwest Arm pairing up, and strangely, a Wood Duck pairing up with a different duck species; she also saw lots of Robins. Earlier in the day, she said there was a news report about a juvenile **Harbour Seal** taking refuge the previous evening under a parked car on Hollis Street. The seal was probably looking for a bit of food. When police arrived, they used a blanket to entice the seal back into the harbour.





This almanac is for the dates of events which are not found in our HFN 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.

"[...] and when the raucous geese announced from the sky the turning over of the season, the men and women of the Island roused themselves from their long winter's detention, happy to have survived for another season of greening and growth."

- David Weale, from the essay "Making it to the grass" in Them Times (1992)

NATURAL EVENTS

- 5 Mar. Full Moon; Moonrise at 18:17 AST.
- 20 Mar. Vernal Equinox at 19:45 ADT. Spring begins in the Northern Hemisphere.
- 4 Apr. Full Moon; Moonrise at 20:06 ADT.
- 16 Apr. The daily minimum temperature at Shearwater is above 0°C.
- 22 Apr. Earth Day.
- **4 May** Full Moon; Moonrise at 20:58 ADT.
- **9 May** Winter Solstice at 19:03 AST. Winter begins in the Northern Hemisphere. But though the temperature drops, the days begin to lengthen.
- **28 May** The date of last spring frost in Halifax; Env. Canada says there is only a 1:10 chance that a spring frost will occur after this date; look forward to 155 frost-free days.
- 2 Jun. Full Moon; Moonrise at 20:47 ADT.
- 8 Jun. World Oceans Day.
- 15 Jun. -16 Jun. The earliest mornings of the year; Sunrise at 5:28 ADT.
- **21 Jun.** Summer Solstice at 13:38 ADT; Summer begins in the Northern hemisphere. The longest day of the year, with 15 hours and 34 minutes of daylight at Halifax.
- 22 Jun. -30 Jun. The latest evenings of the year; Sunset at 21:04 ADT.
 - Sources: Atmospheric Environment Service, Climate Normals 1951-80 Halifax (Shearwater A) N.S.; Blomidon Naturalists Society 2015 Calendar; United States Naval Observatory Data Services.

SUNRISE AND SUNSET ON SPRING AND EARLY SUMMER SATURDAYS FOR HALIFAX: 44 39 N, 063 36 W

	7 Mar.	06:42	18:10	4 Apr.	06:50	19:45
1	4 Mar	07:29	19:19	11 Apr.	06:38	19:54
2	1 Mar	07:16	19:28	18 Apr.	06:26	20:03
. MA 2	8 Mar	07:03	19:37	25 Apr.	06:14	20:11
Deres						
NG? K	2 May	06:04	20:20	6 Jun.	05:30	20.56
Z S	9 May	05:54	20:28	13 Jun.	05:29	21:00
HUTTER 1	6 May	05:46	20:37	20 Jun.	05:29	21:03
2	3 May	05:39	20:44	27 Jun.	05:31	21:04
3	0 May	05:34	20:51			

ORGANISATIONAL EVENTS

Blomidon Naturalists Society: Indoor meetings are held on the 3rd Monday of the month, in Room BAC241 of the Beveridge Arts Centre, Acadia University, 7:30 p.m. Field trips usually depart from the Wolfville Waterfront, Front Street, Wolfville. For more information, go to http://www.blomidonnaturalists.ca/.

- 11 Apr. "Avon River Canoe Trip", with leader Patrick Kelly, 472-2322, patrick.kelly@dal.ca.
- 20 Apr. "Deep Woods Tales: Tall and True", with renowned storyteller Mike Parker.
- 25 Apr. "Amethyst Cove Rockhounding and Photography" with leaders David and Chris Sheppard.
- 2 May "Tree Swallow Nest Monitoring Workshop", Contact James Churchill, jamesLchurchill@gmail.com.
- 18 May "East Africa at Last", a photographic wildlife presentation with speaker John Belbin.
- 23 May "Blomidon Provincial Park", with leader Jim Wolford, 542-9204, jimwolford@eastlink.ca.
- 24 May "Herbert River Trail", with leader Patrick Kelly, 494-3294, 472-2322, patrick.kelly@dal.ca.
- 30 May "Cape Split Hike"; leaders Jim Wolford, jim wolford@eastlink.ca, Patrick Kelly, 472-2322, patrick.kelly@dal.ca.
- 31 May "New Birders' Walk", leader Patrick Kelly, 494-3294, patrick.kelly@dal.ca. Pre-registration required!
- **15 Jun.** "Annual Show & Tell", open to all. Contact James Churchill, **jamesLchurchill@gmail.com**.
- TBA Jun. "Tree Swallow Banding Demonstration", with Tara Imlay, Dalhousie

Burke-Gaffney Observatory: Public shows at the Burke-Gaffney Observatory at Saint Mary's University are held on the 2nd and 4th Friday of each month, except from June through September when they are held every Friday. Tours begin at 7:00 p.m. between November 1st and March 30th, and at 8:00 p.m. or later (depending on when it gets dark) between April 1st and October 31st. For more information, 496-8257; or go to http://www.ap.smu.ca/pr/bgo-visit/public-viewing.

Friends of McNab's Island Contact Cathy McCarthy, 434-2254, or go to http://www.mcnabsisland.ca/.

- **22 Apr.** "25th AGM", 6:30 p.m. at the MMA and "Canada's Bastions of Empire", with speaker Bryan Elson.
- 7 Jun. "McNab's Island Beach Clean-up", 10:00 a.m. 5:00 p.m. Pre-registration is required!
- **18 Jul.** Rain date **19 Jul.** "25th Anniversary Picnic", 9:30 a.m. 5:30 p.m. Guided hikes, games, and entertainment for all ages.
- 18 Oct. Rain date 25 Oct. "Fall Foliage Tours", 10:00 a.m. 5:00 p.m., \$15 members & children: \$20 non-members.

Nova Scotia Bird Society: Indoor meetings usually take place on the 4th Thursday of the month, September to April, at the Nova Scotia Museum of Natural History, 7:30 p.m. For more information phone Kate Steele, 476-2883, or email **field-tripcoordinator@nsbirdsociety.ca**. You may also email the trip leader, or go to **http://www.nsbirdsociety.ca**/.

- 26 Mar. "Seabirds, oases and contaminants in the Arctic", with speaker Dr. Mark Mallory.
- 28 Mar. Storm Date 29 Mar. "Baccaro and Blanche Peninsula", with leader James Hirtle, 693-2174, or jrhbirder@hotmail.com.
- 23 Apr. TBA, with speaker Tara Imlay.
- **16 May** "Musquodoboit", with leader Verna Higgins, 384-2286, or **vjhiggins@xplornet.com**.
- 18 May "Historic Hants County", with leader Suzanne Borkowski, 448-0345, or suzanneborkowski@yahoo.ca.
- 22-25 May "Bon Portage Island", with leader Claire Diggins, 825-6152, or Claire_Diggins@hotmail.com. Pre-registration is required!
 - **30 May** "Middle Musquodoboit", with leader Verna Higgins, 384-2286, or vjhiggins@xplornet.com.

Nova Scotia Department of Natural Resources: Many outings which will take place in Provincial Parks are listed in the "Parks are for People" Programme, available at museums, parks, and tourist bureaus, and on the web at **http://www.novascotiaparks.ca**/.

Nova Scotia Museum of Natural History: For more information, 424-6099, 424-7353; http://naturalhistory.novascotia.ca.
30 Jan. -24 May. "Dinosaurs Unearthed". Interactive; Showcasing a range of dinosaurs from the Jurassic and Cretaceous.

Nova Scotia Wild Flora Society: Meets the fourth Monday of the month, September to May, at the Nova Scotia Museum of Natural History, 7:30 p.m. For more information, email nswildflora@yahoo.ca, or go to http://www.nswildflora.ca.
27 Apr. "AGM" followed by "Gypsum Flora of N.S", with speaker David Mazerolle.

Nova Scotian Institute of Science: Meets the first Monday of the month, September to April, usually at the Nova Scotia Museum of Natural History, 7:30 p.m. For more information go to http://nsis.chebucto.org/.

- **30 Mar.** "Lessons Learned From the War on Science", with Dr. Thomas J. Duck
- 4 May "Crop Responses to Multiple Components of Climate Change", with Dr. Mirwais Qaderi

Royal Astronomical Society of Canada (Halifax Chapter): Meets the third Friday of each month, except July and August, in Room AT101 of the Loyola Atrium Building at Saint Mary's University, 8:00 p.m. For more information, go to http:// halifax.rasc.ca/.

Young Naturalists' Club: A fun, free nature club for children seven to 12 years. Meetings take place every 3rd Saturday of the month (excepting July and August), at the Museum of Natural History, 1747 Summer St., from 10:30 - 11:30 a.m. Field trips take place every fourth Sunday, at 1:00 p.m. For more information, Karen McKendry, 404-9902, ynchalifax@ yahoo.ca; or, go to http://nature1st.net/ync.

- 18 Apr. 10:00 p.m. 12:00 p.m., April meeting, TBA, Nova Scotia Museum of Natural History.
- 9 May 1:00 p.m. 3:00 p.m., "Celebrate International Migratory Bird Day", Wolfville Ridge.
- 16 May 17 May, "Run for the YNC, Bluenose Marathon Scotiabank Charity Challenge", all day, Halifax.



- compiled by Patricia L. Chalmers

HALIFAX TIDE TABLE



		April	-avril					May	-mai	- ¥				June	-juin		
Day	Time	Metres	jour	heure	mètres	Day	Time	Metres	jour	heure	mètres	Day	Time	Metres	jour	heure	mètres
1 WE ME	0020 0604 1234 1831	0.5 1.6 0.4 1.7	16 TH JE	0529 1200 1759	1.8 0.2 1.9	1 FR VE	0023 0615 1228 1829	0.4 1.6 0.5 1.7	16 SA SA	0024 0611 1238 1826	0.1 1.8 0.2 2.0	1 MO LU	0104 0707 1309 1905	0.2 1.6 0.5 1.8	16 TU MA	0153 0740 1411 1944	0.1 1.8 0.4 1.9
2 TH JE	0058 0644 1311 1906	0.5 1.7 0.4 1.7	17 FR VE	0038 0626 1255 1850	$0.1 \\ 1.9 \\ 0.1 \\ 2.0$	2 SA SA	0059 0655 1305 1903	0.4 1.6 0.4 1.7	17 SU DI	0118 0704 1332 1916	0.0 1.8 0.2 2.0	2 TU MA	0145 0748 1351 1944	0.2 1.6 0.5 1.8	17 WE ME	0240 0828 1459 2031	0.1 1.8 0.4 1.9
3 FR VE	0131 0723 1343 1940	0.4 1.7 0.4 1.7	18 SA SA	0133 0719 1348 1939	0.0 1.9 0.1 2.1	3 SU DI	0133 0734 1339 1937	0.3 1.6 0.4 1.8	18 MO LU	0209 0755 1425 2004	0.0 1.8 0.3 2.0	3 WE ME	0227 0828 1434 2026	0.1 1.7 0.4 1.9	18 TH JE	0324 0914 1546 2117	0.2 1.8 0.5 1.9
4 SA SA	0202 0759 1412 2013	0.3 1.7 0.4 1.7	19 SU DI	0226 0811 1441 2027	0.0 1.9 0.1 2.1	4 MO LU	0209 0812 1415 2013	0.2 1.7 0.4 1.8	19 TU MA	0259 0844 1516 2051	0.0 1.8 0.3 1.9	4 TH JE	0311 0910 1520 2109	0.1 1.7 0.5 1.9	19 FR VE	0407 0957 1632 2201	$0.2 \\ 1.8 \\ 0.6 \\ 1.8$
5 SU DI	0234 0836 1442 2045	0.3 1.7 0.4 1.8	20 MO LU	0318 0901 1534 2115	0.0 1.9 0.2 2.0	5 TU MA	0247 0850 1452 2049	0.2 1.7 0.4 1.8	20 WE ME	0347 0932 1608 2137	$0.1 \\ 1.8 \\ 0.4 \\ 1.9$	5 FR VE	0357 0952 1612 2154	0.1 1.7 0.5 1.9	20 SA SA	0448 1039 1718 2245	0.3 1.8 0.6 1.8
6 MO LU	0309 0912 1514 2119	0.3 1.7 0.4 1.8	21 TU MA	0410 0949 1628 2201	0.0 1.8 0.3 1.9	6 WE ME	0328 0928 1534 2128	0.2 1.7 0.5 1.8	21 TH JE	0435 1018 1701 2223	0.2 1.8 0.5 1.8	6 SA SA	0447 1037 1709 2240	0.2 1.7 0.5 1.8	21 SU DI	0528 1121 1807 2329	0.4 1.8 0.7 1.7
7 TU MA	0346 0948 1550 2154	0.3 1.7 0.5 1.8	22 WE ME	0502 1037 1725 2247	$0.1 \\ 1.8 \\ 0.4 \\ 1.8$	7 TH JE	0412 1007 1622 2209	0.2 1.7 0.5 1.8	22 FR VE	0522 1103 1755 2309	0.3 1.8 0.6 1.7	7 SU DI	0539 1123 1811 2329	0.2 1.7 0.5 1.8	22 MO LU	0608 1204 1856	0.5 1.7 0.7
8 WE ME	0428 1025 1633 2231	0.3 1.7 0.5 1.7	23 TH JE	0556 1125 1825 2334	0.3 1.7 0.5 1.7	8 FR VE	0501 1049 1718 2252	0.3 1.7 0.6 1.8	23 SA SA	0611 1149 1851 2357	0.4 1.7 0.7 1.6	8 MO LU	0635 1213 1914	0.3 1.7 0.5	23 TU MA	0014 0650 1249 1946	1.6 0.6 1.7 0.7
9 TH JE	0516 1104 1726 2311	0.4 1.6 0.6 1.7	24 FR VE	0650 1214 1924	0.4 1.6 0.6	9 SA SA	0555 1134 1821 2340	0.3 1.7 0.6 1.7	24 SU DI	0659 1237 1945	0.5 1.7 0.7	9 TU MA	0023 0732 1307 2015	1.7 0.3 1.7 0.5	24 WE ME	0102 0735 1339 2035	1.5 0.6 1.6 0.7
10 FR VE	0611 1148 1829 2357	0.4 1.6 0.7 1.7	25 SA SA	0025 0744 1308 2022	1.6 0.5 1.6 0.7	10 SU DI	0652 1225 1925	0.4 1.7 0.6	25 MO LU	0049 0746 1331 2038	1.6 0.6 1.6 0.7	10 WE ME	0124 0829 1407 2115	1.6 0.3 1.7 0.4	25 TH JE	0158 0823 1433 2123	$1.4 \\ 0.6 \\ 1.6 \\ 0.6$
11 SA SA	0710 1238 1934	0.4 1.6 0.7	26 SU DI	0123 0837 1412 2118	1.5 0.5 1.6 0.7	11 мо LU	0034 0750 1323 2027	1.7 0.4 1.7 0.6	26 TU MA	0147 0834 1431 2128	1.5 0.6 1.6 0.7	11 TH JE	0233 0928 1512 2214	1.6 0.3 1.8 0.3	26 FR VE	0301 0914 1528 2211	$1.4 \\ 0.6 \\ 1.6 \\ 0.5$
12 SU DI	0050 0810 1339 2037	1.7 0.4 1.6 0.6	27 MO LU	0231 0928 1523 2212	1.5 0.6 1.6 0.6	12 TU MA	0137 0847 1429 2127	1.7 0.4 1.7 0.5	27 WE ME	0252 0921 1532 2216	1.4 0.6 1.6 0.6	12 FR VE	0348 1027 1615 2313	1.6 0.4 1.8 0.2	27 SA SA	0405 1007 1620 2259	$1.4 \\ 0.6 \\ 1.6 \\ 0.4$
13 MO LU	0154 0908 1451 2138	$1.7 \\ 0.4 \\ 1.6 \\ 0.6$	28 TU MA	0343 1018 1624 2301	1.5 0.6 1.6 0.6	13 WE ME	0251 0945 1538 2228	1 6 3 8 4	28 TH JE	0357 1009 1624 2300	$1.4 \\ 0.6 \\ 1.6 \\ 0.5$	13 SA SA	0456 1127 1713	1.6 0.4 1.9	28 SU DI	0503 1059 1707 2347	1.5 0.6 1.7 0.3
14 TU MA	0310 1006 1605 2240	1.7 0.3 1.7 0.4	29 WE ME	0443 1105 1712 2344	1.5 0.5 1.7 0.5	14 TH JE	0407 1043 1640 2327	7 .3 1.8 0.2	29 FR VE	0453 1057 1709 2342	1.5 0.6 1.7 0.4	14 SU DI	0009 0556 1225 1806	0.1 1.7 0.3 1.9	29 MO LU	0553 1150 1752	1.5 0.6 1.7
15 WE ME	0425 1104 1706 2340	1.7 0.3 1.8 0.3	30 TH JE	0532 1149 1752	1.6 0.5 1.7	15 FR VE	0513 1141 1735	1.7 0.3 1.9	30 SA SA	0542 1143 1748	1.5 0.5 1.7	15 MO LU	0103 0650 1319 1856	0.1 1.7 0.4 1.9	30 TU MA	0034 0639 1239 1836	0.2 1.6 0.5 1.8
	A	< *	(Z	31 SU DI	0023 0626 1226 1826	0.3 1.6 0.5 1.7					L TIM RE AS	

