

THE HALIFAX FIELD NATURALIST



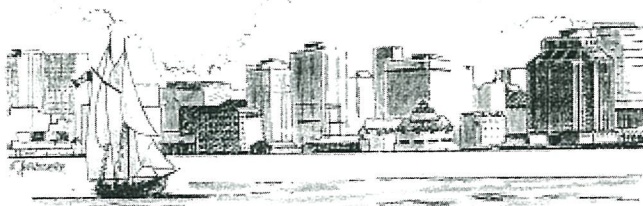
No. 124
September, 2006 to November, 2006



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

HFN is incorporated under the Nova Scotia Societies Act and holds Registered Charity status with Canada Revenue 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 NS (Federation of Nova Scotia Naturalists), the provincial umbrella association for naturalist groups in Nova Scotia. **Objectives** are to encourage a greater appreciation and understanding of Nova Scotia's natural history, both within the membership of HFN and in the public at large, 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 quarterly **HFN Newsletter** and **HFN Programme**, and new memberships received from September 1st to December 31st of any year are valid until the end of the following membership year. The regular membership year is from January 1st to December 31st.



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HFN ADDRESS

Halifax Field Naturalists, c/o N.S. Museum of Natural History, 1747 Summer St., Halifax, N.S., B3H 3A6
 <hfnexec@chebucto.ns.ca>
 <www.hfn.chebucto.org>

NNS ADDRESS

Nature Nova Scotia, c/o N.S. Museum of Natural History, 1747 Summer St., Halifax, Nova Scotia, B3H 3A6
 <doug@fundymud.com> (Doug Linzey, FNSN secretary and Newsletter Editor)
 <naturens.ca>

EXECUTIVE

2006/2007	
President	Allan Robertson 422-6326
Vice-President	Peter Webster..... 453-9244
Treasurer	Janet Dalton 443-7617
Secretary	Peter Payzant 861-1607
Past President	Bob McDonald 443-5051
Directors	Brian Bartlett, Betty Hodgson, Burkhard Plache, Ingrid Plache, Stephanie Robertson, Jim Wolford.

COMMITTEES

2006/2007	
Membership	Linda Payzant..... 861-1607
Programme	
Talks/Trips	Burkhard & Ingrid Plache 475-1129
Design	Stephanie Robertson 422-6326
Newsletter	
Editor	Stephanie Robertson 422-6326
Design	Stephanie Robertson 422-6326
Almanac	Patricia Chalmers 422-3970
Distribution	Bernice Moores 422-5292
Labels	Doug Linzey 582-7176
Tea Break	Regine Maass
Conservation	Peter Webster..... 453-9244
	Suzanne Borkowski..... 445-2922
	Bob McDonald 443-5051
	Peter Webster..... 453-9244

NNS Rep.

FEES 2006/2007

Individual	\$15.00 per year
Family	\$20.00 per year
Supporting	\$25.00 per year
Nature NS (opt.)	\$ 5.00 per year

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GRAPHICS All uncredited illustrations are by H. Derbyshire or from copyright-free sources. **Front cover** -Point Pleasant Park marsh, S. Robertson; **Back cover** -Sunrise on Pender Island, S. Robertson; Tide Tables -Canadian Hydrographic Service, Fisheries and Oceans Canada.

HFN NEWS AND ANNOUNCEMENTS

EDITORIAL

We were in B.C. recently, where the September 10th extreme low tides revealed, amongst other goodies, piles of bloated giant purple starfish, barnacles upon monster barnacles, neon-orange sea cucumbers, limpets, crabs, rock gunnels, and oysters. Local parks sported behemoth cedars with 20 ft. circumferences and more, their ramrod-straight heights soaring out of sight into thick foliage.

Nature Nova Scotia is looking for its own 'giant' trees (see p. 4 for more details); and the 'Nearby Mountains' write-up, p.7, makes one want to sign up immediately for an Appalachian hike!

— Stephanie Robertson



HFN GIFT MEMBERSHIPS

Have you considered a gift membership for Christmas, a birthday, or some other occasion for a friend or family member? It's a very reasonable price and 'keeps giving' all year-round. The quarterly newsletter, evening presentations, and field trips are both informative and entertaining. With increasing interest in the environment, especially in the light of global warming, it's also very timely.

You can arrange a gift membership by contacting Bernice Moores at 422-5292, or abmoores@chebucto.ca.

— Bernice Moores



POINT PLEASANT PARK

As reported in the June issue, the Point Pleasant Park Advisory Committee (PPPAC), an official park development advisory and liaising citizens' committee between HRM Council and HRM residents, has been set up and has met monthly since April.

Next — the winners of the International Design Competition (Ekistics Planning and Design of Dartmouth, and NIP paysage of Montreal) prepared a 'master plan' to guide the park's renewal, and to formalise a comprehensive, ecologically sustainable vision for the park over the next 50 years. They prepared its outline at an all-day planning meeting in August with HRM staff and PPPAC members; they are currently negotiating a contract with HRM to complete the full plan, expected to be finalised by next summer.

Once negotiations are complete sometime this month, HRM staff and PPPAC members will prepare a report to Council recommending that the work be carried out. Council approval is expected in October. In the meantime, HRM staff and PPPAC agreed to establish maintenance measures to deal with problems in road surfaces, drainage, migration of crusher dust, erosion control, and other issues until the master plan is completed. To this end the consultants will host a workshop in early Octo-

ber to identify and prescribe interim maintenance measures while the Plan is under preparation. Mirroring these efforts to hasten the Park's restoration, the Friends of Point Pleasant Park have proposed sponsoring, organising, and operating a volunteer task force under the auspices and direction of the PPPAC. The volunteers would help undertake interim protective measures, and would assist with appropriate initiatives once the master plan is completed. FPPP members have been asked to attend the workshop. PPPAC plans to meet with Mayor Peter Kelly, shortly after this workshop, to discuss the committee's terms of reference and its ideas concerning Park planning and restoration. Having the Mayor's personal approval of PPPAC efforts will be helpful in obtaining Council approval for the spending.

— Allan Robertson



BLUE MT./BIRCH COVE LAKES

It has been a very successful summer for the campaign to protect the Blue Mountain/Birch Cove Lakes wilderness.

The city has now formally declared that the area is a 'regional park' and has zoned the public lands accordingly. Also, the Province has agreed that a full environmental assessment should occur before any construction can begin on the proposed Highway 113.

Thank you all for the tremendous amount of time and energy that you have donated to protect this last remaining wilderness area in our community. Our efforts are clearly paying off.

— Chris Miller



BOGANS' 'MONARCH FACTORY'

On the evening of September 18th, Allison and Larry Bogan brought in to the Blomidon Naturalists Society meeting in Wolfville about a dozen or more Monarch chrysalises from their property at Cambridge Station, west of Kentville. The Bogans have lots of wild Common Milkweed and a few Monarchs breed there every year. Two of us each took one home, in order to later see the 'hatching' of the pupa, and then to release them in the wild.

Observers found a bumper crop for summer Monarchs all over Nova Scotia in 2006, and many dozens or perhaps over 100 chrysalises were produced in the Bogans' Milkweeds this year; most of them were hung under the roofs of buildings on the Bogans' property.

On September 21st, my pupa hatched overnight and then dried its wings in the morning; it was a male, and I was able to get good photos of him. Larry had written that his yard still had Monarchs emerging from chrysalises, and even one late larva that had just started to pupate. I drove out there, and hanging on his garage under the roof and under window ledges were the

following numbers of chrysalises: 80 on the south side (15-20 still unhatched); four on the west side; none on the north side; and about 25+ on east side. Also, there were numerous other chrysalises on the south side of their house on various garden plants there.

On September 22nd, 'our Monarch' was still on our porch in the morning, so Pat placed it in the sunlight on a cedar bush. About a half-hour later I saw it fly about 25 metres and then it landed on a flower in our garden, but I wasn't optimistic about its survival. Jean Gibson Collins had the 2nd chrysalis from the BNS meeting, and it emerged on Sept. 23rd.

This event inspired me to do some research and write more about Monarch populations and migration in the near future, hopefully for the next issue.

— Jim Wolford



Recently several new submissions have been entered for some 'largest trees' in Nova Scotia. The last three entries have been very large Sugar Maples in Kings and Hants Counties, but there are White Ash and Red Spruce also.

This is a project of Nature Nova Scotia, and they want more entries so that we can cover all the Counties, and all species of trees. Information, instructions, and entries so far can be viewed at <<http://www.naturens.ca>>; click on 'Big Tree Project'.

The idea is to identify the larger trees in the whole province. We want to list more than just the very largest trees; we want to list the largest several of each species in each County. At the moment there are plenty of blank spaces to fill in, so we ask that you take your tape measure and camera along on your outings and let us know what we have in large trees.

So far most of the entries are from Kings, Hants, and Cumberland Counties, and the species are mainly Red Oak, Sugar Maple, White Pine, and a few others. So — we are just getting started!

There could even be a little friendly competition to see if you can better someone else's find. Watch for the 'Big Trees'...

— Larry Bogan



DISCOVER THE WONDER OF WETLANDS!

On Saturday, August 19, Ducks Unlimited launched its newest Greenwing Legacy Project at the Provincial Wildlife Park at Shubenacadie. This project provides nature lovers a new opportunity to access Nova Scotia's wetlands. A 5,000 square-foot Interpretive Centre, featuring interactive displays as well as classrooms for hands-on conservation education, will be popular with classes in years to come. As well, the recreational nature trails and boardwalks leading through the wetlands will afford opportunities for visitors of all ages to observe nature in the field. There are two trails,

including the recent addition of the 1.5km trail to the 200-acre St. Andrew's Marsh.

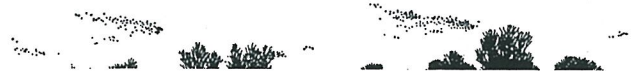
The ribbon-cutting event included two elementary students who had participated in the spring DNR Wetlands art contest. The entry from Rhiannon Rafuse of Port Williams summed it up well — "Wetlands are important because they give us lots and lots of streams, ponds, marshes, and puddles, and they give us clean drinking water. They also provide all kinds of homes for lots of animals."

Now taken over by the Department of Natural Resources for operational duties at the centre and walking trails, the Greenwing Legacy Project details can be found at <<http://wildlifepark.gov.ns.ca> or www.ducks.ca>. The nominal entrance fee to the Wildlife Park includes this new asset. Educators will find more in-depth information for their classroom needs on these sites.

The contributions of many corporate and individual donors, as well as ACOA, Ducks Unlimited, and the Government of Nova Scotia, were recognised for providing wetlands conservation awareness and education to Nova Scotians and our visitors.

As one of the top three provinces attracting birdwatchers from away, one of the displays encourages us to join in this popular pastime. Grab your binoculars and make tracks for Shubenacadie!

— Wendy McDonald



FIVE NEW NATURE RESERVES

Old-growth forests, wood turtles, and rare plants are being protected in two expanded as well as some new nature reserves. In July 2006, five new nature reserves were established, and a fifth and sixth expanded. The four new reserves cover 884 hectares in Inverness, Victoria, Yarmouth, and Guysborough Counties, and in Halifax Regional Municipality. These designations resulted from creative partnerships with private land owners, non-government groups, and corporate and government partners.

The new nature reserves are located at Washabuck River, Victoria County; River Inhabitants, Inverness County; Roman Valley, Guysborough County; Abraham Lake, Halifax County; and Gillfillan Lake, Yarmouth County. Sixteen hectares have been added to Tusket River Nature Reserve in Yarmouth County, and eighty hectares have been added to Cloud Lake Wilderness Area in Annapolis County.

Amendments to the Special Places Protection Act last spring helped make new land available for designation.

— Stephanie Robertson



NEW AND RETURNING

Peggy Traver

SPECIAL REPORTS

HRM 2006 MIGRATION COUNT

The annual Nova Scotia (formerly North American) Migration Count was held on May 13th this year, as always on the second Saturday of May. This one-day birding event aims to provide a snapshot of how migration is progressing across North America, but those of us in Nova Scotia are also interested in documenting any population changes in our resident and migrating birds. It is similar to the annual Christmas Bird Counts that also provide information, primarily on our permanent residents.

A listing of the species and numbers that have been observed in the Halifax Regional Municipality over the past three years is collected in the accompanying table. One new species (Alder Flycatcher) was added this year to the six-year cumulative list that now stands at 181 species. Species that have not been observed for the past three years have been dropped from the list for space reasons, but anyone interested in receiving a copy of the full listing with data for the past six years can contact me at <bobathome@hfx.eastlink.ca> and I will send them a copy.

In 2006, 53 field and feeder counters tallied a total of 10,310 individual birds of 125 species. These numbers are down slightly from the six-year average, likely due to somewhat reduced coverage – both the number of field counters and the time spent in the field was less this year.

I have examined the numbers over the past six years in an attempt to find any effect of global climate change or of hurricane Wilma, which blew several of our already-migrated species (most notably swallows, swifts and nighthawks) and numerous rarities to Nova Scotia last October. This analysis of the HRM data provides little or no evidence for alarm except perhaps for the swallows whose numbers were down by 20-40% from the 2001-2005 averages. Most other decreases can be attributed either to reduced coverage or to the late count date, by which many of our northward-migrating species (some sea ducks like the scoters and the Northern Gannet) have departed. It is worth noting that there are no significant changes in numbers of American Black Duck or in the Black Duck to Mallard ratio. Herring Gull numbers continue to drop (off by 40% from the 2003 high of over 2000 birds); however, the number of Great Black-backed Gulls is higher by 15% than the 2003 tally. Several other species appeared at all-time high levels — Red-breasted Merganser, Ring-necked Pheasant, Common Tern, Blue-headed Vireo, and Yellow Warbler (an incredible 147 were reported!!).

This will be my final report on the Migration Count. Having coordinated and compiled the HRM count for two years and compiled it for the past four, I have decided that it is time to step aside. As well, Suzanne Borkowski, who has served as field and feeder coordinator within the HRM for five years, has



found her duties as NSBS President and a Regional Coordinator for the on-going Maritime Breeding Bird Atlas to be too time-consuming to enable her to continue with the Migration Count. So we are on the lookout for some new faces to coordinate and compile the HRM effort. If you are interested or would like more information on these tasks, please contact me at 443-5051, or by email at the address above. Alternatively, interested persons can contact the new Provincial Coordinator Hans Toom at <Htoom@hfx.eastlink.ca>. Hans has posted the province-wide migration count results on his web site at <<http://www.hanstoom.com/NAMC/Index.html>>.

In 2006, through the efforts of 706 Nova Scotia birders, a remarkable 212 species and over 90,000 individual birds were counted. This is a superb effort and I will certainly continue to be involved (as a field observer) in future counts.

Next year's count will take place on May 12th, 2007. Hope to see you in the field!

SPECIES	2006	2005	2004
Red-throated Loon	0	0	4
Common Loon	42	47	31
Pied-billed Grebe	2	0	0
Red-necked Grebe	1	1	3
Northern Gannet	2	30	64
Double-crested Cormorant	361	627	317
Great Cormorant	1	4	4
American Bittern	2	1	2
Great Blue Heron	35	52	45
Great Egret	0	1	1
Snowy Egret	0	0	1
Turkey Vulture	0	1	1
Snow Goose	0	0	1
Canada Goose	30	25	17
Wood Duck	2	2	2
Gadwall	1	3	1
American Wigeon	4	4	12
American Black Duck	385	343	425
Mallard	94	108	121
Blue-winged Teal	1	3	4
Northern Shoveler	0	0	2
Northern Pintail	2	0	4
Green-winged Teal	13	13	11
Ring-necked Duck	42	39	37
Greater Scaup	0	0	4
Common Eider	502	506	490
Long-tailed Duck	1	0	0
Surf Scoter	0	13	2
White-winged Scoter	2	57	50
Black Scoter	51	14	57
Common Merganser	26	31	66
Red-breasted Merganser	69	25	21
Osprey	47	53	67
Bald Eagle	12	19	15
Northern Harrier	6	4	0
Sharp-shinned Hawk	2	11	11
Northern Goshawk	1	1	0
Broad-winged Hawk	3	1	1
Red-tailed Hawk	2	3	6
American Kestrel	4	0	5
Merlin	5	10	5

Peregrine Falcon	0	0	2
Ring-necked Pheasant	32	27	20
Ruffed Grouse	7	11	14
Spruce Grouse	1	2	1
Black-bellied Plover	1	0	0
American Golden-Plover	0	0	1
Piping Plover	2	5	6
Killdeer	3	2	0
Greater Yellowlegs	12	17	28
Lesser Yellowlegs	2	5	0
Willet	73	141	57
Spotted Sandpiper	0	2	0
Whimbrel	1	0	0
Sanderling	0	8	0
Semipalmated Sandpiper	0	38	0
Least Sandpiper	0	2	5
White-rumped Sandpiper	0	1	0
Wilson's Snipe	0	1	3
American Woodcock	0	2	2
Wilson's Phalarope	1	0	0
Ring-billed Gull	18	33	22
Herring Gull	1246	1387	1924
Iceland Gull	1	2	4
Glaucous Gull	0	1	1
Great Black-backed Gull	509	267	337
Caspian Tern	0	0	1
Common Tern	38	30	7
Arctic Tern	5	2	2
Black Guillemot	0	0	1
Rock Pigeon	370	331	312
Mourning Dove	168	171	172
Great Horned Owl	1	4	2
Barred Owl	1	3	1
Long-eared Owl	1	0	0
Northern Saw-whet Owl	1	1	2
Chimney Swift	0	0	2
Ruby-throated Hummingbird	8	0	5
Belted Kingfisher	20	25	23
Red-bellied Woodpecker	2	2	1
Yellow-bellied Sapsucker	4	0	1
Downy Woodpecker	50	64	57
Hairy Woodpecker	24	27	18
Black-backed Woodpecker	2	3	2
Northern Flicker	82	66	96
Pileated Woodpecker	6	1	2
Alder Flycatcher	1	0	0
Least Flycatcher	9	3	5
Eastern Kingbird	0	1	3
Blue-headed Vireo	79	52	39
Red-eyed Vireo	2	3	0
Gray Jay	13	18	6
Blue Jay	247	312	248
American Crow	674	959	938
Common Raven	68	56	59
Horned Lark	0	0	1
Tree Swallow	237	512	357
Bank Swallow	5	15	2
Cliff Swallow	5	36	4
Barn Swallow	40	197	54
Black-capped Chickadee	361	510	639
Boreal Chickadee	25	19	10
Red-breasted Nuthatch	32	69	54
White-breasted Nuthatch	2	10	0
Brown Creeper	6	5	5
Winter Wren	54	55	11
Golden-crowned Kinglet	59	51	9
Ruby-crowned Kinglet	82	97	63
Veery	1	1	0
Swainson's Thrush	1	1	0
Hermit Thrush	47	90	24



American Robin	464	506	588
Gray Catbird	3	0	0
Northern Mockingbird	2	0	0
European Starling	530	467	700
Orange-crowned Warbler	0	1	0
Nashville Warbler	7	13	4
Northern Parula	22	27	5
Yellow Warbler	147	7	1
Chestnut-sided Warbler	0	0	1
Magnolia Warbler	0	4	7
Cape May Warbler	0	1	0
Black-throated Blue Warbler	1	0	0
Yellow-rumped Warbler	151	498	362
Black-throated Green Warbler	86	50	14
Blackburnian Warbler	1	5	0
Palm Warbler	160	63	20
Blackpoll Warbler	0	8	0
Black-and-white Warbler	30	57	25
American Redstart	2	3	1
Ovenbird	8	4	0
Northern Waterthrush	2	5	3
Common Yellowthroat	9	1	0
Wilson's Warbler	0	1	2
Scarlet Tanager	0	0	1
Chipping Sparrow	6	5	12
Savannah Sparrow	10	15	19
Ipswich Sparrow	0	0	4
Fox Sparrow	3	1	1
Song Sparrow	367	346	346
Lincoln's Sparrow	1	3	1
Swamp Sparrow	5	15	4
White-throated Sparrow	252	317	172
White-crowned Sparrow	0	0	6
Dark-eyed Junco	394	435	559
Northern Cardinal	7	4	5
Rose-breasted Grosbeak	1	1	1
Indigo Bunting	0	1	0
Red-winged Blackbird	96	157	101
Rusty Blackbird	3	4	5
Common Grackle	487	548	468
Brown-headed Cowbird	0	2	3
Baltimore Oriole	0	0	1
Pine Grosbeak	4	1	2
Purple Finch	161	177	173
House Finch	0	5	16
Red Crossbill	2	8	6
White-winged Crossbill	0	0	3
Common Redpoll	0	0	1
Pine Siskin	44	290	86
American Goldfinch	304	708	431
Evening Grosbeak	7	17	3
House Sparrow	121	188	178

No. of Species	125	131	134
No. of Individuals	10319	12785	12034
Party hours (on foot/by car)	88/50	134/60	134/62
Party km (on foot/by car)	85/887	202/1034	206/1207
No. of Field Counters	37	61	48
No. of Feeder Counters	16	24	16

— Bob McDonald
HRM Compiler
Nova Scotia Migration Count



HFN TALKS

NEARBY MOUNTAINS 7 SEPT.

Most Nova Scotians are well aware of the Canadian Rocky Mountains and other mountains to the West. But I have found that too few Nova Scotians know much about the very dramatic and beautiful mountains nearby us on the eastern seaboard.

My presentation on September 8th attempted to highlight the amazing environment of the east coast mountains. The presentation featured a selection of photographs from mountain hikes that myself and my wife, Jill, have taken over the last 15+ years, as well as excellent photographs from other sources, particularly the Mount Washington Observatory, Baxter State Park in Maine, and Parks Canada. In particular, I focused on rare high alpine places 'above tree-line'. This is a region where a combination of elevation and weather prevent tree growth and produce an arctic-like environment. While tree-line occurs in western Canada at elevations over 8,000 feet, it occurs at only 4,000 feet in the east; and in the harsh climate of Newfoundland, no trees grow above 2,500 feet.

The presentation focused closely on Mount Washington and the Presidential Range (in the White Mountain National Forest) in New Hampshire. Several other major mountains were highlighted: Mount Katahdin, Baxter State Park, in northern Maine; the Chic Choc Mountains on the Gaspé Peninsula in Quebec; and finally, the Gros Morne National Park and the Long Range Mountains of Newfoundland. All are part of the Appalachian mountain range running from Georgia to the tip of the Gaspé Peninsula, and then continuing up the west coast of Newfoundland. There are hundreds of mountains in the northern portion of the Appalachian range. These mountains were created some 350 million years ago by the coming together of continental plates to form the super continent of Pangaea. This range of mountains was initially over 15,000 feet high, but erosion and glaciation has reduced them to less than 6,000 feet.

Climbing the mountains of the Appalachians is an often strenuous process, involving long hours of hiking through beautiful forest over rough and increasingly steeper trails. The Appalachian Trail is one the most famous hiking corridors in North America, following the mountains all the way. Not all summits along the Appalachian mountain range are difficult, though. The low elevation areas in the Appalachians create many special environments. They are known for protected microclimate regions and unusually sheltered pockets of subtropical climate in this otherwise harsher region.

A typical mountain hike would include a long forest approach leading up to the transition zone where tree growth is stunted by harsh weather. Normally vertical trees and shrubs grow horizontally, clinging to the ground for protection from the elements. Passing through the transition zone, one comes to the high alpine gardens above tree-line. Alpine areas appear to be rocky and desolate barrens, but closer inspection reveals a host of interesting flowers, grasses, and low shrubs, as well as lichens growing amid the scree and rock in this arctic type environment.

Mount Washington at 6,288 ft. is the highest mountain in the north-eastern United States. It is famous for its extreme weather. It is the best known and most often visited of the high mountains of New England. Because it has a road and a scenic railway to the summit, it is also one of the most accessible ways to experience the alpine environment. Mount Washington is particularly well known for rare alpine plants. Dwarf Cinquefoil, Alpine Azalea, and Lapland Rosebay are a few examples of the many interesting plants to be seen. The Mount Washington Observatory is an active research centre where weather, lichen, and plants are among the areas of study.

The weather is a major factor when climbing in the Appalachian Mountains. Sudden and unpredictable changes in weather are common. Lightning, cold rain, or unexpected snowfall are among the hazards even in summer. In winter, these mountains receive large amounts of snow. Avalanches are not uncommon, and are a substantial risk for skiers and others using the mountains. Mount Washington is particularly famous in winter for its very high winds and potential deadly weather. This is one reason why the New England mountains are served by a series of climbers' huts, operated by the Appalachian Mountain Club. These huts are a warm refuge from wind and bad weather while hiking, as well as being centres of social activity. They feature bunkrooms for overnight stays and basic meal facilities, as well as friendly staff.

Another important Appalachian peak is Mount Katahdin in Northern Maine. It is only a 2± hour drive from Fredericton, New Brunswick, and the starting point for most climbers is near the town of Millinocket. Its summit is the exciting end to the Appalachian Trail in the United States. I consider it to be the most beautiful mountain in the north-east and a challenging mountain to climb. This arresting mountain with its sharp ridges and conical shape is often thought to be an extinct volcano. But in fact it is not volcanic in origin — the mountain's shape was carved by alpine glaciers. The magnificent 'chimney pond cirque' lies at its centre, with Katahdin's 2,000 ft. ridges rising above it. Baxter State Park, where Katahdin is located, is also an excellent place for viewing moose and other wildlife.

The Long Range Mountains of Newfoundland are a continuation of the Appalachian range. They are lower than the mountains of New England. Gros Morne, the highest mountain in the range is only some 2,800 ft. high. But due to the exposed and more northerly climate, tree-line in Newfoundland occurs at only 2,200 ft. (*cont'd on p. 12*)



FIELD TRIPS

CAPTAIN ARNELL LANDS

Date: Sunday, 2 June

Place: Captain Arnell Lands, Purcell's Cove

Region: 833; Eastern Shore Beaches

Weather: Cloudy with sunny periods

Interpreters: Bob & Wendy McDonald

Participants: 2

On Sunday morning, Wendy and I made a spur-of-the-moment decision to do a hike into the Captain Arnell property in Purcells Cove. Only a few drops of rain fell during the day and in fact the sun came out several times. We looked and listened for birds, made a note of butterflies and odonates (dragonflies and damselflies), did some geo-caching, and tried to find the most direct route back to Flat Lake.

Firstly, all the flagging tape was gone from the first two km of the trail and we took the wrong trail at least once. Good thing that we weren't leading a group; or perhaps getting 'lost' is part of the adventure! The map which Peter Green generated was very helpful on a couple of occasions, and a combination of pink and orange flags were helpful over the last 500-750 metres of trail. In the end, we did make it to Flat Lake, ate our snacks, and then started our botanical inventory on the walk back.

We were able to add some additional species to the list to date, including several of particular interest, at least to us (marked **). None of the following species were listed in the HFN June Field Trip write-up (Iss. #123).

CAPTAIN ARNELL SPECIES

Plants

Reindeer Lichen (at least 2 types)

Pixie Cups

British Soldiers

And a third, unidentified Cladonia

Red Spruce

Tamarack

White Pine

Jack Pine

Creeping Juniper

(I love its Latin name!)

Goldthread

Pitcher Plant

Big-toothed Aspen

Broom Crowberry

Golden Heather**

Labrador Tea

Leatherleaf

Dwarf Huckleberry

Black or Highbush Huckleberry

Wintergreen

Pine Sap

Blackberry

Three-toothed Cinquefoil

Inkberry**

Mountain Holly

Cow-wheat

Bush Honeysuckle

Blue Bead or Corn Lily

Indian Cucumber Root

Mountain Sandwort**



Cladonia sp.

Cladonia pleurota?

Cladonia cristatella

Cladonia sp.

Picea rubens

Larix laricina

Pinus strobus

P. banksiana

Juniperus horizontalis

Coptus trifolia

Sarracenia purpurea

Populus grandidentata

Corema conradii

Hudsonia ericoides

Ledum groenlandica

Chamaedaphne calyculata

Vaccinium caespitosum

Gaylussacia baccata

Gaultheria procumbens

Monotropa hypopithys

Rubus sp.

Potentilla tridentata

Ilex glabra

Nemopanthus mucronata

Melampyrum lineare

Diervilla lonicera

Clintonia borealis

Medeola virginiana

Arenaria groenlandica

We saw no large butterflies but did spot many skippers (unidentified) and a Summer Azure, *Celastrina ladon neglecta*.



There were many dragonflies of several species on the granite barrens but the only ones we were able to ID using binoculars (no net) were the Chalk-fronted Corporal, *Ladonia julia*; the Four-spotted Skimmer, *Libellula quadrimaculata*; and the Crimson-ringed Whiteface, *Leucorrhinia glacialis*, of which both males (red) and females (yellow) were observed. This latter was a new odonate species for me.

The bluets (damselflies) couldn't be positively identified because the male terminal appendages need to be examined under a microscope (which I did not carry with me!).

Birds

Ring-necked Duck

Aythya collaris

(possibly breeding on Flat Lake - 2♀ and 1♂?)

Red-tailed Hawk/Broad-winged Hawk

Buteo sp.

(I can usually identify this one but had poor looks through the trees and it was a young bird.)

2 Osprey (or one seen twice)

Pandion haliaetus

Blue Jay

Cyanocitta cristata

Black-throated Green Warbler

Dendroica virens

Black-and-white Warbler

Mniotilta varia

American Goldfinch

Carduelis tristis

Wendy's pedometer indicated 3.7 km in to Flat Lake and 6.6 km when we emerged after the round trip.

When we were at Flat Lake, my GPS unit indicated that we were 1.49 km from the trailhead as the crow flies. We were on the property for about seven hours in total. It was a wonderful day and we both enjoyed it immensely. The trails were quite wet in places, not surprising after all the rain, and have had a lot of use by mountain bikers who have built lots of bridges over streams and across bogs which make it easier for hikers. We met no bikers, but only a single walker with her dog. However, when we first arrived at the trailhead, about six people were piling into a van with Quebec plates, and it appeared as though they may have been camping on the property. One of the campfire pits we walked past was still warm. There is still very little, if any, garbage on the property, once you leave the road.

And that is our report!

— Bob and Wendy McDonald



REGION 833 — EASTERN SHORE BEACHES

Soils — The Halifax Peninsula, which is underlain by slate except in the extreme north end, has mostly Bridgewater soils. Wolfville drumlin soils are common in Cole Harbour.

Flora — Coastal White Spruce and Balsam Fir forest with maple and birch predominant; on drumlins, pure stands of White Spruce; further back — spruce, fir, and pine.

Fauna — Fresh and salt water areas for migration-, winter-, and breeding-habitat for waterfowl; freshwater fish include White Sucker, shiners, sticklebacks, perch, Banded Killifish, and Brook Trout.

IRVING GREENHOUSE

Date: Saturday, 8 July

Place: Acadia University, Wolfville

Region: N/A

Weather: Mostly sunny, high of 28°C

Interpreters: Laurel McIvor

Participants: 22



The field trip to the K. C. Irving Environmental Science Centre, with its Greenhouse and the Harriet Irving Botanical Gardens, attracted a total of 22 participants.

We were welcomed by Laurel McIvor, our guide, in the main lobby of the Centre. The Irving Centre, with the gardens, was donated by the Irving family in memory of Kenneth Colin Irving and Harriet Lila Irving. It conducts environmental research, with a focus on the native flora of the Acadia Forest Region. Conservation principles are utilised in the building by heating and cooling via heat exchange with the town's water.

The first stop of our tour was the Garden Room, which resembles a traditional English Orangery, and is used as a general study area. On the first floor, we saw two meeting rooms with lovely woodwork, and beautiful drawings and carpets.

The basement of the building houses a seed bank and a herbarium containing more than 200,000 specimens, with ample space for future growth of the collection. A study room is available for research and classes for the public, and there is also a reference library of botanical books, as well as the auditorium, which the Blomidon Naturalists are happy to be able to use for their meetings.

The basement level leads directly to the research laboratories which consist of office space and climate-controlled growth-rooms. At the other end of the research laboratories area, we took an elevator one level up into the potting shed adjacent to the greenhouse.

We entered the greenhouse, which is located on top of the research laboratories. This greenhouse offers three benches to simulate real-life conditions of tidal wetlands, and six phytotrons to conduct plant experiments under climate-controlled conditions. One current project, using four of the phytotrons in the greenhouse, investigates the effects of raising the atmospheric CO² levels on plants' growth. For this purpose, White Spruce seedlings are grown under different CO² levels and their growth patterns are monitored.

Leaving the greenhouse's research area, we entered its central room, the Conservatory, which contains samples of plants from different regions of the Acadian Forest. This conservatory opens into the Walled Garden — a formal, ornamental part of the Botanical Garden. The walls protect against cold winds and also trap heat, thus permitting the native plants growing here to bloom earlier than in adjacent areas.

The Botanical Garden as a whole occupies some six acres and shows nine habitats of the Acadia Forest Region. Additionally, it contains an experimental garden, medicinal and food gardens, and a large central lawn.

The experimental garden, located next to the Walled Garden and the Greenhouse, is currently being used to

research the clean-up of contaminated soil.

The medicinal and food gardens contain a First Nations, an Acadian, and a Scented Garden section. The plants here range from indigenous plants used for medicinal purposes, to kitchen herbs introduced from Europe. Also present were vegetables typical of early settler gardens. These gardens were traditionally surrounded by a living fence of willows, which provided protection against wind. The willows served also as a lure crop, prompting deer to feed on them rather than on the garden plants.

Leaving the food and medicinal gardens, we walked through some of the more natural habitats. There are a total of nine natural habitats of the Acadia Forest Region represented in the Botanical Garden: Deciduous Woodlands; Freshwater Inland Marsh; Bog; Coastal Headlands; Mixed Woodlands; Calcareous Woodlands; Wet Woodlands; Sand Barrens; and Coniferous Woodlands.

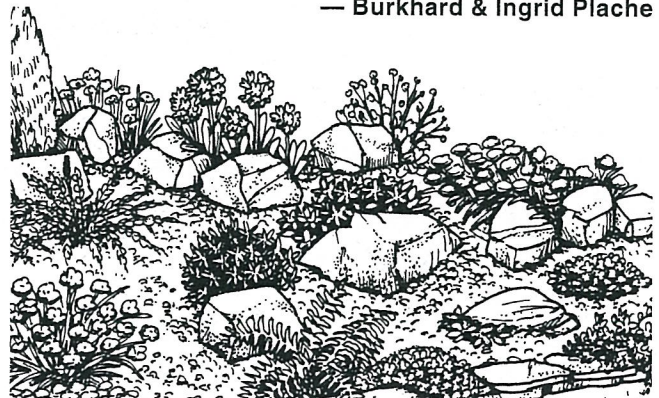
Our guide pointed out some interesting features. For instance, the peat for the bog was dug out of a real bog in winter and transported into this location. Working during the winter like this, the frost protected the plants in the solid blocks of peat. Unlike a natural bog, for which rain is sufficient to keep the bog alive, this one needs regular watering.

On our way to the Coastal Headlands area we encountered less common native plants such as the Canada Lily and the Woodland Anemone. The Coastal Headlands require an occasional salt spray application to suppress overgrowth of the typical plant association by weedy plants.

Our last stop was the Freshwater Inland Marsh. The Green Frogs and Spring Peepers that were originally placed there had all been taken by Herons! Our guide also told us the following interesting story — the Scottish stone masons building the wall bordering the Freshwater Marsh brought one stone from their previous project, which they inserted in the wall here. They then took one stone from this wall for their next project!

After the tour, participants dispersed and explored on their own the Botanical Garden and the adjacent Woodland Trails. These woods offer a variety of forest types of native as well as European tree species. Of the latter, a plantation-type section of Norway Spruce, with nearly no undergrowth, was very distinctive. The deciduous forest has some fine specimens of old trees, and some very tall specimens of Norway Spruce, *Picea abies*, and Fir, *Abies alba* or *Abies grandis*.

— Burkhard & Ingrid Plache



BUTTERFLIES II

Date: Saturday, 15 July

Place: Uniacke Estate Museum Park/Pockwock Rd.

Region: 413a; Halifax Quartzite Barrens

Weather: Mostly sunny; a high of 28°C

Interpreters: Peter and Linda Payzant

Participants: 6, including the interpreters

In a repeat of last year's events, the first butterfly trip of the season had to be cancelled due to inclement weather, so we were hoping that this trip would prove to make up for that in some degree. Unfortunately, while it was a delightful day, the butterflies were scarce. One of the best of the nectar sources, Black Knapweed, was blooming profusely, but once again the butterflies, especially the large ones, were scarce.

As usual, we began our trip with a walk around Uniacke Estate Museum Park. The field behind the caretaker's house was too wet to walk through, but we did see several Eyed Browns flying at the back near the alders. In the 'Right Whale' field there were a few skippers and one or two fritillaries, and we got a close look at a spectacular Virgin Tiger Moth. We also saw a single White Admiral high up in a Linden tree near the house.

The Drumlin Hill had a few more skippers (mostly Peck's), several Clouded Sulphurs, and a solitary Wood Nymph. There were no Ringlets and just a single Common Branded Skipper, both species that we would have expected to be abundant.

We then moved on the the Pockwock Road, and here things were a little more interesting. There were lots of Atlantis Fritillaries, and we were able to observe the key features (dark upper-wing margins, blue-grey eyes) with ease. Several Pink-edged Sulphurs flew up and down the road, and once again we were able to catch one and have a good look at the features which separate it from the very similar Clouded Sulphur. The fritillaries were not abundant by any means, but we did get regular looks at some Atlantis, plus a few Aphrodites. A mystery fritillary provoked some discussion, and later research indicated that it was probably a Great Spangled fritillary, rather than the Aphrodite that we had originally thought.

We visited a little boggy area which has often produced Bog Copper in the past, but, even though it was very wet, there were no coppers to be seen.

We admired the Ebony Jewelwings from the bridge, and finally headed home, with a stop for ice cream along the way. The total 'score' was 17 species of butterflies, plus various Odonates and of course lots of birds.

— Peter Payzant

BUTTERFLIES II SPECIES

Clouded Sulphur
Pink-edged Sulphur
Great Spangled Fritillary
Aphrodite Fritillary
Atlantis Fritillary
Northern Crescent
White Admiral
Northern Pearly-eye
Eyed Brown
Common Wood Nymph
European Skipper
Common Branded Skipper



Colias philodice
C. interior
Speyeria cybele
S. aphrodite
S. atlantis
Phyciodes selenis
Limenitis arthemis
Enodia anthedon
Satyrodes eurydice
Cercyonis pegala
Thymelicus lineola
Hesperia comma

Peck's Skipper
Tawny-edged Skipper
Long Dash
Hobomok Skipper
Dun Skipper
Virgin Tiger Moth
Virginia Ctenucha Moth

Polites peckius
P. themistocles
P. mystic
Poanes hobomok
Euphyes vestris
Grammia virgo
Ctenucha virginica

REGION 413a — HALIFAX QUARTZITE BARRENS

Soils — Mostly Halifax soils; well-drained, stony, sandy loams developed on till derived from quartzite.

Flora — Higher/broader ridges capped with American Beech, Yellow Birch, Red Maple, and Sugar Maple. On the fringes, mixed stands of Red Spruce, Balsam Fir, Yellow Birch, Eastern Hemlock, and White Spruce. In depressions, swamps with Black Spruce, Larch, some white Pine, Balsam Fir, and Red Maple.

Fauna — Extensive past forest cutting, so there is good browse for deer and Snowshoe Hare. The latter abundance ensures high Bobcat populations. Small-mammal diversity high along rivers and streams. Typical fish include White and Yellow Perch, White Sucker, Brown Bullhead, Brook Trout, Banded Killifish, sticklebacks, Golden Shiner, Lake Trout, and American Eel.

DEADMAN'S ISLAND

Date: Wednesday, 9 August

Place: Dingle Park & Deadman's Island Park

Region: 833; Eastern Shore Beaches

Weather: Sunny

Interpreter: Iris Shea

Participants: 32

The field trip to Deadman's Island started at the Frog Pond parking lot with a short introduction by local historian Iris Shea. She was accompanied by her colleague Heather Watts. They have jointly published the book Deadman's: Melville Island and It's Burial Ground.

The first part of the walk led through Dingle Park, officially called 'Sir Sandford Fleming Park'. Iris gave a brief introduction about Sir Sandford Fleming, his cottage in the park area — now on Dingle Road — and his fondness of the area. His plan to donate his favorite spot as a park to the City of Halifax was at first not received very well, partially because he wanted the city to erect a tower (expensive) to commemorate the first legislative assembly in the British Empire (1758). However, in the end, the tower was finally financed by a fundraising campaign throughout the whole of the British Empire.

We then proceeded to the outflow of the Frog Pond, where Micmac people used to meet up until the 1940s, making baskets for local sales.

We continued parallel to the brook over the Crossland Ice Trail, which was used to transport ice from Frog Pond to the Fleming Cottage. At the end of this trail we reached Dingle Road, where the original cottage is located a few 100 metres up the road on the right. It is now owned and rented out by the City of Halifax.

From here, we followed Loop Road, a former pony trail for the Fleming children, to the northern end of the

Dingle Park. Crossing over to Pinehaven Road, we reached the entrance to Deadman's Island Park. After a short walk down to the water, we arrived on the peninsula which is called Deadman's Island.

Here, at the Deadman's Island Memorial Site, Iris Shea provided a detailed account of the historical use as a burial ground. She and Heather Watts have researched the history of Deadman's, and nearby Melville Island, which housed a prison and at other times was used as a quarantine station. Deadman's Island was used as a burial ground for people who died on Melville Island. It was used to house prisoners of war during the Napoleonic Wars, the War of 1812, and the First World War.

Detailed knowledge on the burial grounds had been lost, but a proposed development for residential use led to renewed interest. Following collaborative pressure by a range of organisations (Northwest Arm Heritage Association, the Ohio Society of the War of 1812, and the Royal Canadian Legion), the Municipality acquired Deadman's Island and established the park.

The island consists of a hill and a level area just above sea level, where a memorial plaque and some benches are located. A short trail leads in a loop along the side of the hill, which is covered with a mixture of mature White Pines and younger hardwood and softwood trees.

We saw a few Night Hawks flying overhead, and a couple of Belted Kingfishers and an Osprey.



— Burkhard & Ingrid Plache

REGION 833 — EASTERN SHORE BEACHES

Soils — The Halifax Peninsula, which is underlain by slate except in the extreme north end, has mostly Bridgewater soils. Wolfville drumlin soils are common in Cole Harbour.

Flora — Coastal White Spruce and Balsam Fir forest with maple and birch predominant; on drumlins, pure stands of White Spruce; further back — spruce, fir, and pine.

Fauna — Fresh and salt water areas for migration-, winter-, and breeding-habitat for waterfowl.



INTERTIDAL MUD-FLATS...

Date: Sunday, 10 September

Place: Kingsport mudflats, Wolfville

Region: 620; Triassic Lowland Tidal Bay

Weather: Overcast

Interpreter: Jim Wolford

Participants: 20



...or, "The Yummy Muds of Minas" (— Sherman Bleakney).

The coincidence of a full moon and perigee (nearest Earth-Moon distance) on September 7th resulted in the lowest low tides of the summer on September 10th. The tidal amplitude was 15.7 metres, which equals almost 52 feet! While we were there however, from the low tide line, when we looked back to shore, the long walk looked very flat and the tidal verticality was hard to appreciate. Overnight rain plus heavy overcast resulted in a nice-

sized group of about 20 participants.

On our way to Kingsport at Canard there was a Red-tailed Hawk on a power-line, and Bernice Moores saw a Bald Eagle near Canning.

At the Kingsport wharf I handed out Sherman Williams' tide chart for the month, a list of common and genus names of the usual critters of Kingsport beach, a list of topics for my slide-shows on the upper Bay of Fundy, and a summary of biodiversity statistics for the marine and estuary area of Minas Basin and Minas Channel. Also, I strongly recommended Merritt Gibson's book, Seashores of the Maritimes, 2003, Nimbus publishing, which explains an easy way to identify common items found during beachcombing plus lots of natural history tidbits about the examples.

At the beginning of the field trip, we saw lots of shells of slipper-limpets at high-tide lines, and someone quickly found a living, large Moon Snail, which should have been in the lower intertidal area (maybe it was found the day before by someone else and was then left high on the beach?).

Next we found a Moon Snail's operculum by itself in the lower intertidal area, but besides the numerous partial shells, we found no more whole shells at all on the surface (which is very strange for a low, low tide). Later, I showed everyone clam shells that had the neat beveled holes drilled in them by the toothed, tongue-like radula of the Moon Snail and its accompanying secretion of hydrochloric acid.

We saw serpentine tracks in the sand from the Sand Sowbug, *Chiridotea*, in upper sandy areas, and in the middle intertidal mud, I pointed out tiny clumps of sediment on the surface from buried segmented worms — the threadworms *Heteromastus* — very long and thin and reddish-brown.

Digging to show the threadworms showed us a white Ribbon Worm, *Cerebratulus*, and a small pink Blood-worm, or baitworm, *Glycera*. Baitworms are commercially dug and exported to the U.S. east coast for sport fishing.

There were two other kinds of segmented worms observed; they were the buried Sandy-tubed Bamboo worms, *Clymenella*, indicated by large clumps of sand pushed up out of their tubes; and Scaleworms, *Lepidonotus?*, under large rocks. Also, in the lowest intertidal zone, there were lots of clumped groups of short sandy tubes made by Gold-crest or Sand-builder Worms, *Sabellaria*.

In a large tide-pool around a rock, I used a sieve and a pan of water to show the Sand Shrimps, *Crangon*, and there were lots of them. We found very few Hermit Crabs, which surprised me a lot (there should have been huge numbers of little ones in pools). We found shells of three kinds of true crabs (Green, Rock, and Lady), but the only living ones seen were the Green Crabs; also, we found lots of the cast 'skins' of their growing young.

Barnacles were incredibly abundant and densely packed on almost every solid surface (rocks, other shells, etc.).

On the lower intertidal areas (here rarely exposed by tide, usually subtidal), we spotted feathery, whitish plant-like colonies of Hydroids, and they were everywhere, attached to the mud surface or to the rocks. These are micro-predators on small swimming crustaceans, and they use stinging cells to subdue them. There were



oodles of shells with holes from Razor Clams, and we dug up several living ones, one of which cooperated nicely when laid in a puddle by quickly getting itself upright and then burying itself for us until it got tired or hit a solid subsurface layer.



Other clams found were two living Quahogs and numerous shells of it, and shells of Surf or Bar Clams, False Angel-wings, and Pandora.

Extremely abundant snails were New England Basket Shells, which are mainly scavengers, and we were lucky enough to see a few dense aggregations in feeding frenzies with their bodies nearly totally out of their shells! Other snails were Common Periwinkles, Dogwinkles with their egg-cases (latter not abundant), one Waved (or Northern) Whelk, and more parts of Moon Snail shells.

Living Slipper-limpets or Slipper-shells of two species were very abundant, living in sexy stacks (female on bottom, males and immatures on top) on rocks or shells. One 'sea mop', (a cluster of transparent 'fingers' that were egg-sacs of Peale's or Long-finned Squid) had probably been freshly laid; I also explained that Peale's Squid and the Lady Crab are examples of 'Basin Endemics', i.e. warm-water species that are not found in colder waters between the Minas Basin and Cape Cod.

We also saw here occasional sandy-coloured, leaf-like skeletons of bryozoans, *Flustra*, which live on rocks subtidally; other unidentified bryozoans were living crusts under lower intertidal rocks.



At the low-tide line, one rock had several very young colonies of animals that were probably Eyed Finger-sponges, a formerly common subtidal species that has become very rare; we found a single dead unattached specimen of it.

Two small rocks were covered by a living crust of Red Beard Sponge. No stranded fishes nor Rock Gunnels (or Rock Eels) were found, but Nancy Nickerson found a tiny baby flounder (unidentified as to species).

I mentioned that seining along the low-water line would produce good numbers of schooling small fishes like Atlantic silversides. No Sea Slugs were noted, but not enough effort was made in turning over rocks or looking closely where the Hydroids were — the usual way to find them.

A large outcrop of sandstone in the middle intertidal zone had lots of hanging colonies of the zig-zag Wine-glass Hydroid (Gibson's nomenclature), colonies of several kinds of seaweeds — *Ascophyllum*, *Fucus*, *Enteromorpha*, *Ulva*, *Porphyra*, fragments of two unidentified red algae, Sea Oak, and Dulse — and also huge numbers of small barnacles.



Blue Mussels with their very tough byssus threads for attachment had become much less abundant than they were just a year or two ago, and a small upper intertidal salt-marsh had huge numbers of densely aggregated, buried, small Soft-shelled Clams.

Also in the salt-marsh we found holes and u-shaped tubes with Mud Shrimps, the famous food of the migrating sandpipers that then fly non-stop from here to South America! Recent research has found these shrimps to be very rich in omega-3-fatty acids.



We did see one flock of unidentified shorebirds, a single Black-bellied Plover, a few Great Blue Herons, and oodles of gulls enjoying the extra-low tide's offerings.

Back at the wharf, I enticed everyone to walk south

through the salt-marsh that is protected by it. Several small, living Green Crabs were seen, and also incredibly large and dense numbers of Mud Snails. The latter are scavengers and also 'grazers' on the unseen microscopic diatoms (golden-brown algae) that are major producers of food in this extremely rich ecosystem along with its salt-marsh cord grasses.

Finally, on this last day for the Kingsport beach canteen being open, we enjoyed ice cream and other goodies, and I put out examples of books and tidal flat specimens from the Acadia Biology collections for people to peruse.

I believe that everyone had a good time and got exposed to lots of tidbits of beachcombing trivia.

Finally, I want to acknowledge the generosity of Merle and Richard Foot, who allowed us to use their hoses for washing the sticky, 'yummy mud' from our footwear.

— Jim Wolford



REGION 620 — TRIASSIC LOWLAND TIDAL BAY

Soils — Deep, coarse soils from eroded Triassic sandstones; some parent material from basaltic rock; salt marshes have been extensively dyked.

Flora — This trip; dykeland, mud flats, and salt marsh tidal and intertidal plant and animal communities.

Fauna — This trip; productive intertidal habitats of mud flats, salt marshes, dykelands, and estuaries, rich with molluscs, intertidal plants, worms, etc.; an important breeding/staging area for waterfowl and migratory shorebirds.



NEARBY MOUNTAINS

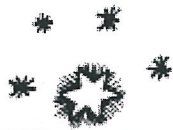
(cont'd. from p.7) Gros Morne National park is a Unesco World Heritage site. It features high-cliffed fiords carved by the last continental glaciers. It is also a unique geological site, where ancient rocks from deep in the earth's crust are exposed. Both the Gros Morne high alpine environment and the lowland barriers and bogs are sites of many rare plants.

The Chic Choc Mountains of Quebec's Gaspé Peninsula are another special alpine region. I have not yet climbed in this mountain range and have only viewed the mountains from a distance. Mont Jacques-Cartier at 4,400 ft. and Mont Albert at 4,200 ft. are the highest peaks in this region. These beautiful mountains have long been visited by extreme skiers in winter; they are an increasingly popular hiking destination in summer. In 2003, the International Appalachian Trail was opened, following the mountains north from Katahdin in Maine to Northern New Brunswick through to Mont Jacques-Cartier in Quebec's Gaspé Park.

Although we have explored the mountains of the east coast for many years, there are still many mountains and special places that we have yet to explore, such as Mount Carleton in northern New Brunswick. So Jill and I look forward to many more years of exploring the various mountain ranges that make up the International Appalachian Trail. Like avid rock star groupies, we have our own star to follow, and never get tired of touring after our favourites!

— Peter and Jillian Webster

ALMANAC



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.

"To me its [i.e. Canada's] crowning glory land of the rarest and best & healthiest air ... land of clear skies and sunshine of course by no means tropical, neither in any degree arctic ... In June, July and August, the long evening twilights — in September and October the most perfect days perhaps vouchsafed to any part of the globe."

— **Walt Whitman, Diary in Canada, "St. Lawrence"; undated entry from August 1880.**

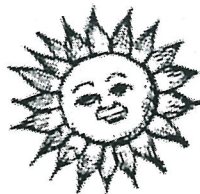
NATURAL EVENTS

- 7 Sept. Full Moon rises at 19:46 ADT; there will be large tides on this and the next two days.
- 23 Sept. Autumnal Equinox at 1:04 ADT; Fall begins in the Northern Hemisphere.
- 28 Sept. Third anniversary of 'Hurricane Juan'.
- 30 Sept. Average date for first frost in Halifax (i.e. Env. Canada says there is only a 1:10 chance we will have frost before this date); look forward to 210 days of frosty weather.
- 6 Oct. Full Moon; it rises at 18:29 ADT.
- 29 Oct. Atlantic Daylight Time (i.e. Daylight Savings Time or Summer Time) ends, and clocks are set back one hour at 2:00 a.m, from Atlantic Daylight Time (ADT) to Atlantic Standard Time (AST).
- 5 Nov. Full Moon; it rises at 16:43 AST.
- 22 Nov. Daily minimum temperature goes below 0°C.
- 4 Dec. Full Moon; it rises at 15:53 AST.
- 7 Dec. Daily average temperature goes below 0°C.
- 8 Dec. -11 Dec. Earliest sunset of the year at 16:34 AST.
- 13 Dec. -14 Dec. Geminid Meteor Shower.
- 14 Dec. -5 Jan. Audubon Christmas Bird Count Period.
- 21 Dec. Winter Solstice at 20:23 AST; Winter begins in the Northern Hemisphere. But though the temperature drops, the days begin to lengthen.
- 27 Dec. -31 Dec. Latest sunrise of the year at 7:51 AST.



— Sources: Atmospheric Environment Service, Climate Normals 1951-80 Halifax (Shearwater A) N.S.; Blomidon Naturalists Society's 2006 Calendar; Burke-Gaffney Observatory, Saint Mary's University.

SUNRISE AND SUNSET ON LATE SUMMER AND AUTUMN SATURDAYS



2 Sept.	6:38	19:50	7 Oct.	7:20	18:45
9 Sept.	6:46	19:37	14 Oct.	7:29	18:32
16 Sept.	6:55	19:24	21 Oct.	7:38	18:20
23 Sept.	7:03	19:10	28 Oct.	7:47	18:10
30 Sept.	7:11	18:57			
4 Nov.	6:56	17:00	2 Dec.	7:32	16:36
11 Nov.	7:06	16:51	9 Dec.	7:39	16:34
18 Nov.	7:15	16:44	16 Dec.	7:45	16:35
25 Nov.	7:24	16:39	23 Dec.	7:49	16:38
			30 Dec.	7:51	16:4

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

ORGANISATIONAL EVENTS

Blomidon Naturalists Society: Indoor meetings take place on the 3rd Mon. of the month, in the auditorium of The K. C. Irving Environmental Science Centre on University Avenue, Wolfville, at 7:30 p.m. Field trips usually depart from the Wolfville Waterfront, Front Street, Wolfville. For more info, go to <<http://www.go.ednet.ns.ca/~bns/>>.

- 1 Oct. "Canoe Trip to Black River Lake", with leaders Ruth and Reg Newell, 542-2095.
- 15 Oct. "Canoe Trip to Cloud Lake", with leader Larry Bogan, 678-0446.

Burke-Gaffney Observatory: Public shows at the Burke-Gaffney Observatory at Saint Mary's University are held on the 1st and 3rd Saturday of each month, except from June through Sept. when they are held every Saturday. Tours begin at 7:00 p.m. between 1st Nov. and 30th Mar., and at either 9:00 p.m. or 10:00 p.m. (depending on when it gets dark) between 1st Apr. and 31st Oct. For more info, 496-8257; or go to <<http://apwww.stmarys.ca/bgo/>>.

Ecology Action Centre: For more info, go to <<http://www.ecologyaction.ca/index.shtm>>.

23 Sept. "Great Canadian Shoreline Cleanup; Cow Bay", contact Jen Smith, <jsmith@wwf.canada.org>.

29 Sept. "The Roaring Twenties Recycled — EAC's Birthday Soiree", contact Gina Patterson, 442-0202.

19 Oct. -22 Oct. "Salt of the Earth: ... Environmental Respect and Sustainability"; <<http://www.saltoftheearth.ca/>>.

Friends of McNabs Island: For more info, go to <<http://www.mcnabsisland.ca/>>.

15 Oct. Raindate 22 Oct. "Fall Foliage Tours", contact Carolyn, 477-0187; <mcnabs@chebucto.ns.ca>.

Nova Scotia Bird Society: Indoor meetings take place on the 4th Thurs. of the month, Sept. to May, at the NSMNH, 7:30 p.m. For more info, Suzanne Borkowski, 445-2922; or go to <<http://nsbs.chebucto.org/>>.

28 Sept. "Roseate Tern Recovery Project...", with speaker Christopher Wessel, Bluenose Coastal Action Foundation.

29 Sept. -1 Oct. "Brier Island Weekend", with leaders James Hirtle, 640-2173; <jrhbirder@hotmail.com>, and Fulton Lavender, 455-4966. **Reservations**, Suzanne Borkowski, 445-2922; <suzanneborkowski@yahoo.ca>.

13 Oct. "Cape Breton Chapter Meeting, Cheticamp", with speaker Randy Lauff, St. Francis Xavier University.

14 Oct. "Cheticamp/C.B. Highlands National Park Trip", contact Gordon Delaney, 224-2490;

<gordon.delaney@pc.gc.ca>.

26 Oct. NSBS Annual General Meeting, followed by a wine and cheese party.

18 Nov. "Canso Causeway", with leaders David Johnston and Dave McCorquodale.

23 Nov. "Northern Goshawks and their Habitat Requirements", with speaker Peter Bush.

25 Nov. "Canso and Area", with leaders Tom Kavanaugh, 366-3476; <terri.crane@ns.sympatico.ca>, and Steve Bushell, 366-2527.

26 Nov. "Antigonish Coastal Waters", with leader Randy Lauff, 867-2471; <rlauff@stfx.ca>.

02 Dec. Storm Date 03 Dec. "Metro Hot Spot Birding", with leader Terry Paquet, 452-3622; <terrypaquet@hotmail.com>.

03 Dec. "Cape Sable Island", with leader James Hirtle, 640-2173; <jrhbirder@hotmail.com>.

14 Dec. -03 Jan. "Christmas Bird Counts". <<http://nsbs.chebucto.org>>, or <<http://www3.ns.sympatico.ca/maybank/other/ns.cbc.htm>>.

Nova Scotia Department of Natural Resources: Many outings that will take place in Provincial Parks are listed in the "Parks are for People" Programme, available free from the Dept. at 424-4321; and at many museums, parks, and tourist bureaus; and on the web, <<http://parks.gov.ns.ca/programs.asp>>.

Nova Scotia Lighthouse Preservation Society: Has monthly meetings, and organises guided trips to lighthouses, including boat trips to islands. For more info, Dan Conlin, 424-6442; or go to <<http://www.nslps.com/>>.

Nova Scotia Museum of Natural History: For more info, 424-6099, 424-7353, or <<http://museum.gov.ns.ca/mnh/>>. Note — the series "Beyond The Last Billion Years", sponsored by NSMNH, has moved to the Bedford Institute of Oceanography. Consult the website for details.

- **30 Nov.** "Endangered Marine Animals of the Atlantic", a Nature Art Exhibit of works by Jeff Domm.

15 Oct. "Meet the Curator of Archaeology, David Christianson". Bring in a mystery stone object!

22 Oct. "Meet the Curator of Zoology, Andrew Hebda". Expect to see bats!

15 Nov. "Beginner Digital Photography with a Focus on Nature", with photographer Glen Sentner. Co-sponsored by the Photographic Guild of Nova Scotia.

3 Dec. "Meet the Curator of Geology, Deborah Skilliter". Bring in some of your own fossils, rocks, and minerals.

Nova Scotia Nature Trust: For more info, 425-5263; or go to <<http://www.nsnt.ca/>>.

3 Oct. "Energy-in-Action Day at the Captain Arnell Conservation Lands".

14 Oct. "Silent Auction and Dinner", with guest speaker Justin Trudeau, Halifax Marriott Harbourfront Hotel.

Nova Scotia Wild Flora Society: Meets 4th Mon. of the month, Sept. to May, at the NSMNH, 7:30 p.m. For more info, Barry Sawyer, 449-4938; or go to <<http://www.chebucto.ns.ca/~nswfs/>>.

23 Oct. "Flowers of Tuscany", with speaker Keith Vaughan.

27 Nov. "Endangered Plants and the Environmental Assessment/Development Planning Process", with speaker Mark Elderkin.

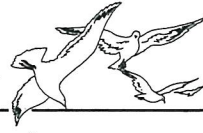
Photographic Guild of Nova Scotia: Meets 2nd Mon. of the month, as well as the 1st and 3rd Sun. of the month at the NSMNH, 7:30 p.m. Shows are held at St. Mary's U., Theatre A, Burke Education Centre. For more info, go to <<http://www.photoguild.ns.ca/>>.

25 Nov. "Annual Fall Show", Burke Education Center, Theatre A, at 8:00 p.m.

Royal Astronomical Society of Canada (Halifax Chapter): Meets 3rd Fri. of each month, Rm L176, Loyola Academic Building at St. Mary's U., 8:00 p.m. For more info, go to <<http://halifax.rasc.ca/>>.

— compiled by Patricia L. Chalmers

HALIFAX TIDE TABLE



October-octobre

November-novembre

December-décembre

Day Time			Feet Metres		jour heure			pieds metres		Day Time			Feet Metres		jour heure			pieds metres		Day Time			Feet Metres		jour heure			pieds metres															
1	0131	4.6	1.4	16	0350	4.9	1.5	1	0341	5.2	1.6	16	0445	5.2	1.6	1	0403	5.9	1.8	16	0433	5.2	1.6																				
	0823	2.6	0.8		1021	2.3	0.7		1012	1.6	0.5		1122	2.0	0.6		1055	1.0	0.3		1117	1.6	0.5																				
SU	1339	5.2	1.6	MO	1557	4.9	1.5	WE	1553	5.2	1.6	TH	1706	4.9	1.5	FR	1640	5.2	1.6	SA	1717	4.6	1.4	SA	2311	2.3	0.7																
DI	2106	1.6	0.5	LU	2235	1.6	0.5	ME	2229	1.0	0.3	JE	2317	2.0	0.6	VE	2301	1.3	0.4	SA	2311	2.3	0.7																				
2	0253	4.6	1.4	17	0450	5.2	1.6	2	0439	5.9	1.8	17	0525	5.6	1.7	2	0458	6.2	1.9	17	0515	5.2	1.6																				
	0925	2.3	0.7		1113	2.0	0.6		1112	1.3	0.4		1202	1.6	0.5		1152	0.7	0.2		1159	1.3	0.4																				
MO	1457	5.2	1.6	TU	1657	4.9	1.5	TH	1700	5.6	1.7	FR	1752	4.9	1.5	SA	1741	5.2	1.6	SU	1805	4.9	1.5	SU	1805	4.9	1.5																
LU	2205	1.3	0.4	MA	2325	1.6	0.5	JE	2323	1.0	0.3	VE	2359	2.0	0.6	SA	2359	1.3	0.4	DI	2359	2.3	0.7	DI	2359	2.3	0.7																
3	0416	4.9	1.5	18	0533	5.2	1.6	3	0530	6.2	1.9	18	0559	5.6	1.7	3	0550	6.2	1.9	18	0555	5.6	1.7																				
	1027	2.0	0.6		1159	2.0	0.6		1209	0.7	0.2		1238	1.3	0.4		1247	0.3	0.1		1241	1.0	0.3																				
TU	1616	5.6	1.7	WE	1743	5.2	1.6	FR	1759	5.6	1.7	SA	1834	4.9	1.5	SU	1836	5.6	1.7	MO	1850	4.9	1.5	MO	1850	4.9	1.5																
MA	2300	1.0	0.3	ME				VE				SA			DI				LU				LU			LU																	



ALL TIMES ARE AST

Nature Notes from HFN Monthly Meetings

September Meeting

Peter Payzant reported that lots of **Cabbage Whites, Clouded Sulphurs, some Orange Sulphurs, as well as Monarchs** can be seen now. Monarchs have already started to migrate, and from late October to the end of November Monarchs arrive at their winter home in the Oyamel forests of Michoacan, Mexico.

Lesley Butters reported that high tide in the Northwest Arm on September 6th lasted at least two hours. Arthur Morris told us this could be a seiche (pronounced saysh), describing it as a standing wave, or a series of waves or ripples, kept high by atmospheric or seismic conditions farther out in the harbour or in the ocean. A key requisite for a seiche is that the body of water be partially constrained to allow formation of a standing wave. The seiche observed by Lesley may have also been affected by the moon, which was to be full (Harvest Moon) and at perigee the following day.

On an August evening Peter Webster watched a **young Barred Owl** with its mother in Hemlock Ravine Park. Other bird reports included **frequent loon calls** in the area of Frog Pond and the North West Arm and in Clayton Park, and a **Bald Eagle with prey**, lifting off from the Waegwoltic Club beach. **Bird migrations** noted included large flocks of **Common Grackles** in various locations, **warblers, vireos and hummingbirds** at Hartlen Point, and a probable late **Piping Plover** in Queen's County. At the Frog Pond, on several occasions since August 25th, Pat Chalmers has seen a **Pied-billed Grebe**. They are uncommon breeders in the Halifax area but do regularly turn up at Fleming Park in migration. She also reported a September 4th **sighting of shorebirds including a Solitary Sandpiper** in the marshy area on Birch Road in Point Pleasant Park. It's possible that the swamp is more attractive to shorebirds since it became more exposed as a result of tree-falls during Hurricane Juan. One attendee reported observing an **Osprey catching a trout** and flying off with it after shaking the water from its feathers by wriggling a couple of times as it gained altitude.

— Bernice Moores

! NOVA SCOTIA HUNTING SEASON !

Black Bear	11 Sept.-2 Dec., excluding Sundays
White-tailed Deer (Bowhunting)	30 Sept.-26 Oct., & 4 Dec.-9 Dec., excluding Sundays
White-tailed Deer (Open Season)	21-22 Oct. (Youth Hunters) & 27 Oct.-2 Dec., exc. Sundays
Moose	25-30 Sept., 2-7 Oct., & 12-14 Dec., in Inverness & Victoria Counties only
Ring-necked Pheasant	1 Nov.-15 Dec., in Annapolis, Kings, & Hants Counties, excluding Sundays, 1 Oct.-15 Dec., excluding Sundays, in all other Counties of the province
Ruffed Grouse	1 Oct.-31 Dec., excluding Sundays
Rabbit (Snowshoe Hare)	1 Nov.-last day of Feb., excluding Sundays

**In general, the Hunting Season runs from Sept. 11th to Feb. 28th.
So remember — dress to be seen in the woods!**

! NEXT DEADLINE !

21 November for December Issue

Contributions to the 'Newsletter', c/o NS Museum of Natural History

Email submissions to sdhaythorn@ns.sympatico.ca.