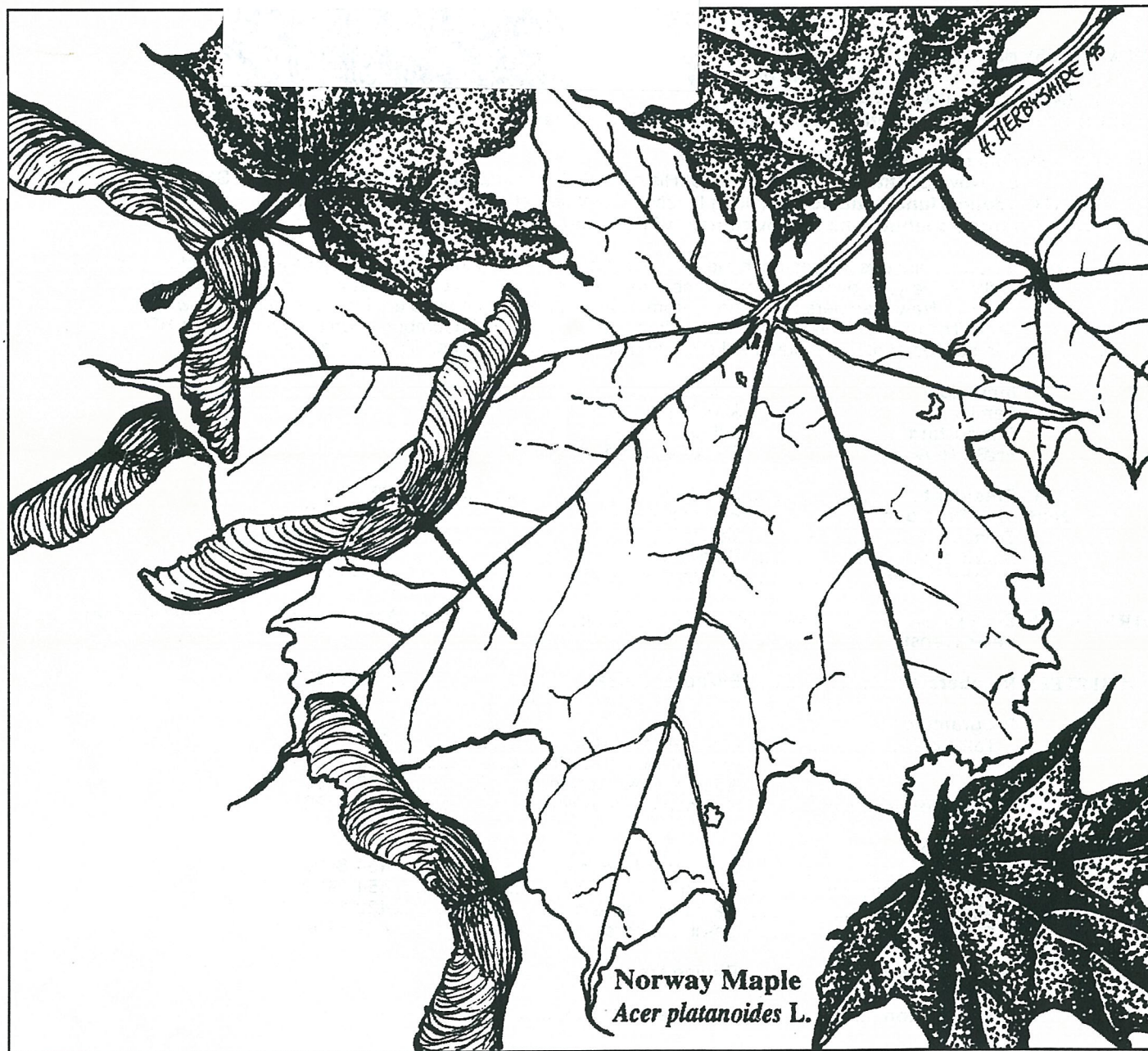


THE HALIFAX FIELD NATURALIST



No. 116
September to November, 2004



News & Announcements p. 3
Special Reports p. 4
HFN Talks p. 4

Field Trips p. 5
Almanac p. 9
Hfx Tide Table: July - September p. 11

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



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

OBJECTIVES are to encourage a greater appreciation and understanding of Nova Scotia's natural history, both within the membership of HFN and in the public at large, 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. Meetings are open to the public.

FIELD TRIPS are held at least once a month, and it is appreciated if those travelling in someone else's car share the cost of the gas. All participants in HFN activities are responsible for their own safety. Everyone, member or not, is welcome to take part in field trips.

HFN ADDRESS Halifax Field Naturalists
c/o Nova Scotia Museum of Natural History, 1747 Summer St., Halifax, Nova Scotia, B3H 3A6

EMAIL <hfnexec@chebucto.ns.ca>

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

FNSN ADDRESS Federation of Nova Scotia Naturalists
c/o Nova Scotia Museum of Natural History, 1747 Summer St., Halifax, Nova Scotia, B3H 3A6

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

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

MEMBERSHIP is open to anyone interested in the natural history of Nova Scotia. Memberships are available at any meeting of the society, or by writing to: Membership Secretary, Halifax Field Naturalists, c/o NS Museum of Natural History. New memberships starting from 1 September will be valid until the end of the following membership year. The regular membership year is from 1 January to 31 December. Members receive the HFN Newsletter and notices of all meetings, field trips, and special programmes. The fees are as follows:

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

EXECUTIVE	President	Elliott Hayes	835-9819
2004-2005	Vice-President	Bernice Moores	422-5292
	Treasurer	Janet Dalton	443-7617
	Secretary	Peter Payzant	861-1607
	Past President	Bob McDonald	443-5051

DIRECTORS Suzanne Borkowski, Ursula Grigg, Patricia Leader, Linda Payzant, Allan Robertson, Stephanie Robertson, Peter Webster

COMMITTEES **Membership** Elizabeth Keizer 475-1195

Programme	
Talks & Trips	Jennifer McKeigan 883-9766
	Ingrid & Burkhard Plache 475-1129
	Anne-Noreen Norton 423-5663
Design/Production	Stephanie Robertson 454-8420

Newsletter	
Editor	Stephanie Robertson 454-8420
Design/Production	Stephanie Robertson 454-8420
Almanac	Patricia Chalmers 422-3970
Distribution	Bernice Moores 422-5292

Refreshments Regine Maass

Conservation Suzanne Borkowski 445-2922

FNSN Representative Bob McDonald 443-5051

ARTWORK All uncredited illustrations are by H. Derbyshire or from copyright-free sources. p.5, fossil sketches from NSMNH Peeper, The Fossil Cliffs of Joggins; Tide Tables - Canadian Hydrographic Service, Fisheries and Oceans Canada.

HFN NEWS AND ANNOUNCEMENTS

EDITORIAL

I love rainy weather. The usual complaints fell around my ears this summer about the season's offerings (too much rain; July was awful; etc.), but for me, it was perfect — a good balance of rain and sun for plants and animals alike.

At Melmerby Beach, Pictou County there was an unusual abundance of rose blooms this year, and all other flowering plants over the season also were overly productive. Something I had never noticed before — Marram Grass seed tops along the top edges of the dunes. Squirrels, Chipmunks, Muskrats, Deer, Great Blue Heron and other shorebirds were also seen in greater numbers, including a regular early morning flock of about 20 Piping Plover.

We did remember to view the Perseid meteor showers, and there were many nights glorious with stars and the Milky Way. The August gales were late this year; they didn't come until September. This meant more sightings of Great Blue Heron on the flat and still ocean beach, rather than on the more sheltered, usual back beach. This was the first year I had observed the herons stalking the oceanside.

People have been very busy, so there has been less time for newsletter submissions. As well, computer glitches have compromised the FNSN AGM field trip reports, nevertheless, there are two (p.5).

—Stephanie Robertson



DNR HERBICIDE PROGRAMME

Nature NS Postings have been flying back and forth about DNR's herbicide 'Vision' aerial spraying programme. Vision prevents hardwoods and other plants from growing up among forestry conifer crops.

Four of these informative communiqués have supplied the background for the following information:

Dr. Richard Stern from Kentville, a physician, points out that glyphosate (the active ingredient), has been linked to respiratory problems, birth defects, miscarriage, and cancer. It has also been shown to kill insects beneficial to ecosystems, to inhibit the ability of nitrogen-fixing bacteria, and to be toxic to fish. Denmark and the Greenland Geological Research Institution have found that glyphosate has the potential to contaminate water supplies. pHe suggests that people go to the Sierra Club's website, <http://www.web.ca/nben/fax/campaigns/spraying_ns/spray_fax.htm>, to sign and send in their letter.

Environmental Consultant **Joanne Cook** has been putting pressure on DFO and Environment Canada to require a CEAA assessment, using the Endangered status of the Inner Bay of Fundy Atlantic salmon populations under the Species At Risk Act as a trigger. Her argument is that disruption of spawning habitat (due to hardwood suppression and thus lack of shade, rising water temperatures, etc.) should be assessed.

Entomologist **Christopher Majka** says as glyphosate

kills the foliage, so also does it kill all the dependent invertebrates (butterflies, beetles, moths, etc.). What about vertebrates and invertebrates, or the ecological processes of the soil; how does it affect fungi, or symbiotic mycorrhizae?

Chris's viable alternative for 'releasing' the growth of conifers is to hire crews with brush saws to manually cut the regenerating cherry, alder, maple, poplar, etc. It works just as well (or even better) than spraying. It's a selective approach that cuts out only those bushes that are actually shading regenerating conifers, and it does not affect all the herbaceous vegetation and all the surrounding trees that are not in the silvicultural stands. It is cost competitive, and employs lots of people on the ground and not just the airplane pilots, contractors, and multinational manufacturers of chemical agents. Also, contractors with brush saws don't 'drift off' in the wind to land on adjacent properties!

From **Lance Laviolette** of Montreal; "The following site has some information on the properties of Glyphosate" — enter <**Glyphosate, Pesticide Fact Sheet**> in your websearch software.

— Stephanie Robertson

!!! HUNTING SEASON !!!

Be aware; hunters will be out and about in Nova Scotia for the following species:

Black Bear	Sept. 13 to Oct. 4
White-tailed Deer (Bowhunting)	Sept. 25 to Oct. 28 and Dec. 6 to Dec. 11
White-tailed Deer (Open Season)	Oct. 29 to Dec. 4
Moose	Sept. 27 to Oct. 2, Oct. 4 -9 Inverness Co. and Victoria Co. only
Pheasant	Nov. 1 to Dec. 15 in Annapolis, Kings and Hants counties. Oct. 1 to Dec. 15 in all other counties in N. S.
Ruffed Grouse	Oct. 1 to Dec. 31
Rabbit (Snowshare Hare)	Nov. 1 to Feb. 28

!! NO HUNTING OF ANY KIND IS PERMITTED ON SUNDAYS !!

NEW AND RETURNING

Norwood & Wilma Akerlund
Marjorie Austin
Brian Bartlett & Karen Dahl
Harry Beach
E. Betty Burke
Joanne Cook
Nancy Covington
David & Joan Embree
Nancy Faulkner
Phyllis Gardiner
Mary Joyce
Lawrence Lamey

Neil & Joyce MacAskill
Anita McKarney
Peter Nelson
Erica Oberndorfer
Terrence Paris
David Patriquin
Chris Pettipas
Gertrude Pitcher
Barbara L. Shaw
Ann Sutherland
Angela Sykes
Jim Wolford

SPECIAL REPORTS

CAPTAIN ARNELL CONSERVATION LANDS

Last year the Halifax Field Naturalists began working with the Nova Scotia Nature Trust to assist them in acquiring a significant piece of wild land on the outskirts of Halifax. A celebration to mark the formal transfer of these lands to the Trust was held on Sunday, 16 May. Over 150 people, mainly residents of the local area, thronged the Purcell's Cove Social Club to join the Trust, the Purcell's Cove Heritage Society, and the HFN in welcoming this acquisition. The event was well covered by the media, with features in both local newspapers and on TV; there were very favourable editorials and letters to the editor in the days following.

Jill Field Alexander (née Arnell) and her sons, the seven Field brothers, have donated 12 hectares of scenic wilderness near Purcell's Cove to the Trust in memory of Captain Kenneth Carstairs Arnell, her father and their grandfather. The property is a long narrow strip of land, extending into the backlands, and includes

part of the undeveloped shorelines of Purcell's Pond and Flat Lake. The area is popular with hikers, and these lakes are local swimming holes. The lakes are also the watershed for the many wells in the area. As the Editor of the Chronicle Herald wrote on 21 May, "Metro residents, and indeed all Nova Scotians, are in the Field family's debt for their generous contribution towards the preservation of undeveloped green spaces in what has rapidly become an increasingly urbanized city."

Following the formalities, Bob McDonald and I, together with Tyler Field and Trust members, led a nature walk into the property. Over sixty eager people came along, but with so many stretched out along a narrow trail, it was nearly impossible to point out to everyone specific plants and birds. However, we all enjoyed the hike, with scenic vistas over the pond. We also announced our intention to have a series of field trips to the area in the coming years. In addition to assisting with the costs of the legal and survey work, HFN has promised to help with a biological survey of the lands. A number of field trips in all seasons will help to accomplish this.

— Patricia L. Chalmers

HFN TALKS

DRAGONFLIES



2 SEPT.

Paul Brunelle brought many of his specimens and gave us a wonderful slide-talk full of interesting information and tidbits on dragonflies and damselflies.

Next to the Coleoptera (the beetles) and the Lepidoptera, the Odonates are now receiving more interest than any other insects. They are large, and easily observed. Showing a slide of the common *Anax junius*, Paul said that for the most part, dragonflies have unequally-sized wings fore and rear, whereas the four wings of damselflies are more or less the same size. Dragonflies are usually larger than damselflies as well, and dragonflies can change colour with age.

The eyes are the most interesting feature, with both compound and simple ocelli. Sight is the most important sense for the Odonates. They have a large, skewed thorax, a very long tail, and densely veined wings. Dragonflies have small antennae, whereas Damsels have large ones.

The Odonates' metamorphosis to adulthood is startling; it takes roughly one and one half hours. There is no pupal stage for them to go through. The larvae, called either nymphs or naiads, are interesting and have several stages. They have labial palps, and teeth. They have very large compound eyes; they only develop simple eyes in the last instar. Adults don't change in size; it is only the larvae which get larger when they go through their successive stages. Most Odonates will eat *anything* alive!

Damselflies are believed to have evolved first. Their larvae are larger, and the three feathers on the end of their tails are really external gills. All damselflies and some dragonflies lay eggs endophytically (oval eggs

deposited within plant tissue); exophytically-laid eggs are round and are laid *on* plants, or freely in the water. Paul's first photographic experience with dragonflies was of an emergence.

Dragonflies' wings are very strong. He showed a slide of a Broad-tailed Shadow Dragon; its teneral are soft and pale; the adults are stronger, and more colourful.

Sundews eat both dragons and damsels, and so do wolf spiders. Dragonflies will also eat damselflies. Killifish will predate both stages of Odonates, and other predators are Painted Turtles, frogs, Grackles, Killdeer, and other shorebirds.

Many more colourful and beautiful slides were shown of various species in various poses; one pair were in the classic 'love-heart' mating pose. There were Jewelwings, Emeralds, a red Katerina, Spreadwings, and one slide of an Orange Bluets (*Enallagma signatum*) seen at the Frog Pond, which is a rarity in N.S. There were also Darners, Flying Adders (or Spiketails), Gomphids (or Clubtails), and Cruisers (which have been clocked flying up to 30 miles per hour).

Many of our rarest species of Odonates are Somatochlora, found in northern latitudes. Can Odonates fly backwards? It hasn't been observed, but Paul likened their flight pattern to that of a Sea King helicopter.

The Libellulidae, or Skimmers, fly like butterflies. The Elfin Skimmer is the the smallest dragonfly here in N.S. There are 121 species of Odonate in N.S., whereas there are only 85 in New York State.

Wandering Gliders spend 11 months in the air without landing anywhere. They are global in distribution except for Europe. Amberwings are small and scrappy, much like the Pekinese dog!

— Stephanie Robertson

FIELD TRIPS

FNSN AGM

18-20 JUNE

Despite lack of an 'official sponsor/host' this year, the FNSN 2004 AGM and talks/field trips and events were wonderful, all organised by Joan Czapalay and Marie Moverley. Based at the Wandlyn Inn in Amherst, there were six field trips offered; two birding trips, one geology, one entomology, one botany, and one Tidal Bore. And, on Saturday evening, after the banquet, entomologist Jeff Ogden spoke on mosquitoes and ticks in Nova Scotia, with particular reference to West Nile disease and Lyme disease.

We opted for the geology 'Fossils in Parrsboro' with Katherine Goodwin, Lab Manager of the Fundy Geological Museum, and for the 'Botany' trip through many different habitats at the Amherst Point Bird Sanctuary. The weather was co-operative, with mostly lots of sunshine and only a bit of wind.

FOSSILS IN PARRSBORO

Date: Saturday, 19 June



Place: Wasson Bluff

Weather: Sunny with cloudy periods; whiff of showers; low tide!

Interpreter: Katherine Goodwin



Participants: ±30

Wasson Bluff is on the northern shore of the Minas Basin, almost directly across from Blomidon. After meeting at the Museum with Kathy, we convoyed to the cliffs, and walked down the gravelly access road to the rocky beach below the bluffs. The cliff face here is an ancient geological fault where sections of the earth's crust moved in the distant past, cutting the bedrock. The Bay of Fundy is, in fact, a failed rift. Southern Nova Scotia, once part of Africa, began to break away from the northern part, but failed to do so completely. The rocky, sandy beach had been thrust downward; the basalt cliff had been thrust up. Looking over the Basin, we could see the famous 'Brothers', two small islands offshore.

Stop 1 illustrated the birth of the Bay of Fundy. We could see where large chunks of the rock layers had been pushed up, distorted, and broken (or faulted) 300 million years ago, during the Carboniferous Period. The Cobequid Mountains, which are part of the Appalachian chain (see "Appalachian Trail", Summer Issue #115, p. 8), were pushed up, and the maroon-coloured layers of rock by the stream were tilted. During the Triassic Period, 75 million years later, earth's continents began to drift apart and hot lava welled up through opening fissures; this cooled lava formed the basalt rocks all along the Bay of Fundy.

Stop 2 displayed the Triassic/Jurassic boundary, showing the maroon and grey sedimentary rocks of the Triassic protruding from beneath the older, darker basalts. These rocks revealed a very long time delay in formation — 100 million years — the younger, upper basalts being part of a lava flow that extends to Boston! Two Islands, Five Islands, Cape Split, Digby Neck, and Brier Island are all parts of this structure. This Jurassic flow is directly on top of Triassic rock layers, and this sandstone and basalt is part of what is called the Newark Supergroup which stretches and fills basins from

Fundy Bay to South Carolina. The Minas Basin is the *only* place in the world where the boundary is visible.

Stop 3. The line here is one of the many Cobequid/Chedabucto faults — the boundary which separates north and south N. S. The long fault on which we walked was cut by a series of smaller ones. Katherine took us back in time and helped us to imagine what it was like when the climate was rather like Mexico — hot, humid, with infrequent, flash-flood rains — a time when rock falls occurred more often than rainfall, and sand-packed basalts were slowly being compressed into the solid masses resembling bricks and mortar that we saw.

Stop 4 was what looked like a giant, petrified termite mound, called a sea stack. Two theories explain it. One purports a natural sand casting when lava was injected into a depth of sand and then cooled; the other, more likely, is that, given the surrounding rock types, it was formed by erosion.

Stop 5 was an exciting 'bone hash site'! Katherine took us back in time again to when small ancient lizards scampered among the boulders and pebbles, preying upon, and being preyed upon by, other reptiles. The tiny bones of these animals, and their unfortunate meals, were preserved and can be seen in the sandstones here.

Stop 6, the 'Arch', illustrated a series of five lava flows one on top of the other. Rock falls are frequent here, and this stop generated discussions of the perils of geologists and paleontologists, and some fatal accidents that participants were familiar with.

Stop 7 was an illustration of what happens when flowing basaltic lava meets water. Seasonal floods from the mountains to the north created stream channels and shallow lakes. When the liquid basalt rose through the thinning crust into the water, its surface cooled quickly. The molten interior continued to move however, giving the solid rock a flowing appearance. Further cooling left cracks in the basalt.

Stop 8 was the 'Fish Bed' where seasonal streams fed a temporary lake. The sediments here contain fossil fish scales, bones, and coprolites (petrified/fossilised faeces). Famous fossils of *Protosuchus*, *Clevosaurus*, and Prosauropods have been found near here.

Stop 9 was the Prosauropod site, discovered in 1973, which finally, in 1984, proved to be the richest Triassic/Jurassic fossil site in the world. At least six partial skeletons have been found along this stretch of beach, doubling the number of known Prosauropods in North America. All the fossil animals had seemed to be trapped and swept along in a flow of mud, or sliding sand dune. More and more fossils continue to be found at this rich site.

Katherine supplied each participant with excellently prepared illustrated material, from which this write-up has been condensed. Thank you, Katherine, for a very, very interesting field trip.

— Stephanie Robertson



CUMBERLAND COUNTY BIRDS

Date: Saturday, 19 June

Place: Wentworth Provincial Park to Amherst Point Bird Sanctuary, with points in between

Leader: Clarence Stevens, Sr.

Weather: Sun and cloud, +12° with strong winds, and showers later in the day

Participants: ± 20

The Nova Scotia Bird Society sponsored a day-long field trip in Cumberland County to coincide with the FNSN weekend in Amherst. Fulton Lavender often leads trips in this area, but this time Clarence Stevens Sr. kindly obliged, and led a large group to various well-known birding spots in the county.

The day began early, at Wentworth Provincial Park, where we found a number of specialties of the region. The hardwood hills and lush riverside host a few bird species which I don't see often in Halifax County. The birds were active, especially in the young birches and cherry trees along the floodplain of the East Branch of the Wallace River, where it flows through the Park. I also saw some of our commoner species for the first time this year. Birds seen and/or heard there included several woodpeckers, flycatchers, and warblers. A particular pleasure was seeing an Eastern Phoebe. This species rarely breeds in Nova Scotia, but a pair has nested for many years under the Valley Road Bridge. A Broad-winged Hawk soared high overhead, affording good views, and leading to a discussion about identification of hawks in flight.

Another fruitful stop was a logging road at Folly Mountain, where the highlight was a pair of Scarlet Tanagers, a first for many. The bright, active male was easier to see than the subdued olive female. This is an even rarer bird in Nova Scotia, and the first nesting of the species to be documented in our province was only a few years ago. We wondered if this pair could be breeding. Not to be outdone by an exotic visitor, a beautiful male Rose-breasted Grosbeak sang from the tree-tops, competing for the admiration of the group. Several Yellow-bellied Sapsuckers were noisily excavating a standing dead tree that was already riddled with their distinctive grids of holes. Eastern Wood-pewees and Swainson's Thrushes sang from the mature Sugar Maple woods beyond the huge piles of logs that were destined for the mill.

We next drove along Valley Road to West Wentworth Mountain and then to Stevens Mountain, where we searched the blueberry fields in vain for the Vesper Sparrows which tend to nest there. From the slope of Stevens Mountain we enjoyed a spectacular view over the other hills to the Northumberland Strait, where the Confederation Bridge shimmered in the haze. There were no Mourning Warblers in the wet hardwood thickets where we have found them skulking in previous years, but the wind may have made them lie low. A pair of Pileated Woodpeckers called raucously over West Wentworth Mountain, along with similar-sounding Northern Flickers.

At Greenville Station, we enjoyed watching an American Kestrel hovering as it hunted over a blueberry field, and Killdeers called from across the road.

We reached Amherst in time to have a quick lunch, and then regrouped at the Amherst Point Bird Sanctuary.



A few new participants joined us there, while some of the morning group went off on plant or butterfly walks.

The wind, which had been increasing during the day, kept off biting insects, but also kept down small birds, and made it hard to hear their songs. The waterfowl didn't seem to mind, however, and these are the chief attraction at Amherst Point. The Sanctuary is part of the Chignecto National Wildlife Area, and is a four hundred hectare mosaic of natural wetlands over gypsum/limestone bedrock, including gypsum sinkholes, shallow lakes, and fertile marshes. Together with the freshwater impoundments, constructed by the Canadian Wildlife Service with the assistance of Ducks Unlimited Canada, this area has attracted an abundance of our regular ducks and geese. There are also many species which are uncommon in Nova Scotia, as they are near the northeastern limit of their range here. These include Pied-billed Grebe, Gadwall, Northern Shoveller, Virginia Rail, Sora, Common Moorhen, American Coot, Black Tern, and Marsh Wren. We saw most of these species during our tour around the extensive grounds. We had the good fortune to observe both Virginia Rails and Sora, as they played hide-and seek in the cattails.

There are a variety of habitats for landbirds as well in the Sanctuary. The impoundments are separated by narrow dykes, with footpaths between young birches and other hardwoods. There are many warblers and sparrows here, and muskrats burrow in the dykes. In the spruce forest we found singing Cape May Warblers, which are more commonly found in Cape Breton. In the lush fields there were Bobolinks, and we enjoyed watching the males perform their ecstatic song flights high in the air above our heads. Afternoon showers ended our walk around the sanctuary, but a persistent few drove into town, where we visited one of the few nesting colonies of Purple Martins in the province.

We saw a great variety of birds during the trip, both familiar species and regional specialties. While it is always fun to see rare birds, it is more reassuring to see our regular birds return each year in healthy abundance, to breed in protected habitats. Thank you to Clarence for showing us so many of them.

— Patricia Chalmers

(The following list is drawn from my own observations; others may have seen additional species):

CUMBERLAND COUNTY SPECIES

Common Loon	<i>Gavia immer</i>
Pied-billed Grebe	<i>Podilymbus podiceps</i>
American Bittern	<i>Botaurus lentiginosus</i>
Mallard	<i>Anas platyrhynchos</i>
American Black Duck	<i>A. rubripes</i>
Northern Pintail	<i>A. acuta</i>
American Wigeon	<i>A. americana</i>
Northern Shoveler	<i>A. clypeata</i>
Blue-winged Teal	<i>A. discors</i>
Green-winged Teal	<i>A. cracca</i>
Ring-necked Duck	<i>Aythya collaris</i>
Broad-winged Hawk	<i>Buteo platypterus</i>
Bald Eagle	<i>Haliaeetus leucocephalus</i>
American Kestrel	<i>Alcos falcosparverius</i>
Virginia Rail	<i>Rallus limicola</i>
Sora	<i>Sora porzana carolina</i>
Killdeer	<i>Charadrius vociferus</i>
Black Tern	<i>Chlidonias niger</i>
Mourning Dove	<i>Zenaidura macroura</i>



Belted Kingfisher
 Yellow-bellied Sapsucker
 Northern Flicker
 Pileated Woodpecker
 Eastern Wood-Pewee
 Least Flycatcher
 Eastern Phoebe
 Red-eyed Vireo
 Blue-headed Vireo
 Common Raven
 Purple Martin
 Bank Swallow
 Tree Swallow
 Barn Swallow
 Golden-crowned Kinglet
 American Robin
 Veery
 Swainson's Thrush
 Cedar Waxwing
 Northern Parula
 Yellow Warbler
 Chestnut-sided Warbler
 Magnolia Warbler
 Cape May Warbler
 Yellow-rumped Warbler
 Black-throated Green Warbler
 Black-and-white Warbler
 American Redstart
 Ovenbird
 Scarlet Tanager
 Rose-breasted Grosbeak
 Nelson's Sharp-tailed Sparrow
 Savannah Sparrow
 Song Sparrow
 Swamp Sparrow
 Dark-eyed Junco
 Bobolink
 Red-winged Blackbird
 Common Grackle
 Purple Finch
 American Goldfinch



Ceryle alcyon
Sphyrapicus varius
Colaptes auratus
Dryocopus pileatus
Contopus virens
Empidonax minimus
Sayornis phoebe
Vireo olivaceus
V. solitarius
Corvus corax
Progne subis
Riparia riparia
Tachycineta bicolor
Hirundo rustica
Regulus satrapa
Turdus migratorius
Catharus fuscescens
C. ustulatus
Bombycilla cedrorum
Parula americanum
Dendroica petechia
D. pennsylvanica
D. magnolia
D. tigrina
D. coronata
D. caerulescens
Mniotilta varia
Setophaga ruticilla
Seiurus aurocapillus
Piranga olivacea
Pheucticus ludovicianus
Ammodramus nelsoni
Passerculus sandwichensis
Melospiza melodia
M. georgiana
Junco hyemalis
Dolichonyx oryzivorus
Agelaius phoeniceus
Quiscalus quiscula
Carpodacus purpureus
Carduelis tristis



CAPTAIN ARNELL CONSERVATION LANDS

Date: Wednesday, 23 June
Place: Purcell's Cove, HRM
Weather: Damp, cool, with occasional showers
Participants: 13

The first of our promised field trips to the Nova Scotia Nature Trust's latest acquisition, the Captain Arnell Conservation Lands, took place on a weekday in late June. We met on a cool, damp evening, with intermittent rain. We hoped to have a member of the Field family guide us on the route, but at the last minute Tyler was unable to come. While Bob and I had been there before, neither of us has gone much beyond Purcell's Pond, and we weren't sure of the way to Flat Lake. Burkhard Plache was with us and he has explored the trails, but he hadn't been into these woods since Hurricane Juan, which has altered the routes and landmarks. We

resolved to go on, despite the poor weather, but only as far as we had gone before. There are many trails, not signposted, and the boundaries of the Nature Trust property are not yet clearly marked either.

A trail begins at the school bus parking spot beside the Purcell's Cove Road, with a steep climb up through a rough, disturbed patch of rocky open ground. There are lots of Jack Pine here, and rusty red soil. Once into the hardwood thickets beyond, we found Juncos and White-throats singing. This part of the path through the woods, which is not within the Captain Arnell Conservation Lands, leads up to Purcell's Pond, and parallels the outlet stream. The wet stony track has been washed out in places, and looks as though it carries a lot of the spring run-off. Some attractive shrubs which grow in the understory of wet hardwood forests are here, such as Hobblebush and Witch-hazel. The property begins at the edge of Purcell's Pond, where we admired some Pink Lady Slippers and lingered to watch a Black Duck family with seven little ones. Then we followed the trail across the stream onto the Trust property, and climbed uphill through a mixed conifer forest of Black Spruce, and several species of Pine.

We soon came out onto rugged granite outcrops overlooking the lake, with Broom-Crowberry and Reindeer Lichen growing in the thin soil. Glacial erratics were covered in Rock Tripe and other lichens. We listened as two Hermit Thrushes sang duets from across the misty lake. A pair of Ring-necked Ducks were far out on the pond. Lesley Butters remarked that the landscape here reminded her of Lapland, which she has visited with her sister who lives in Finland. Bernice Moores and I, on the other hand, both thought of Newfoundland's barrens. We pondered the identity of a warbler singing in the distance, but could not be sure what it was.

We did not go very far beyond Purcell's Pond before we turned back, as heavy rainclouds were darkening the skies. On the return hike, one of our group fell behind the rest and retreated behind some shrubbery. I was startled to hear a loud splash, and then realized that he had stripped off and plunged in for a swim, as the locals do at this traditional swimming hole. We saw him swim across the lake and back, and when he rejoined us at the end of the trail, he reported the water to be fine.

— Patricia Chalmers

ARNELL LANDS SPECIES

Plants

Balsam Fir	<i>Abies balsamea</i>
Red Maple	<i>Acer rubrum</i>
Alder	<i>Alnus</i> sp.
Indian Pear	<i>Amelanchier</i> sp.
Wild Sarsaparilla	<i>Aralia nudicaulis</i>
White Birch	<i>Betula papyrifera</i>
Wire Birch	<i>Betula populifolia</i>
Leatherleaf	<i>Chamaedaphne calyculata</i>
Blue-bead Lily	<i>Clintonia borealis</i>
Goldthread	<i>Coptis trifolia</i>
Broom-Crowberry	<i>Corema conradii</i>
Bunchberry	<i>Cornus canadensis</i>
Pink Lady's Slipper	<i>Cypripedium acaule</i>
Bush Honeysuckle	<i>Diervilla lonicera</i>
Huckleberry	<i>Gaylussacia baccata</i>
Witch-hazel	<i>Hamamelis virginiana</i>
Sheep Laurel	<i>Kalmia angustifolia</i>



Labrador Tea
 Wild Lily of the Valley
 Partridgeberry
 Mountain Holly
 Yellow Pond Lily
 Cinnamon Fern
 Black Spruce
 Red Spruce
 Jack Pine
 Scotch Pine
 Eastern White Pine
 Rhodora
 Red-berried Elder
 Mountain Ash
 Starflower
 Eastern Hemlock
 Foxberry
 Blueberry
 Hobblebush
 Witherod



Ledum groenlandicum
Maianthemum canadense
Mitchella repens
Nemopanthus mucronata
Nuphar variegata
Osmunda cinnamomea
Picea mariana
Picea rubens
Pinus banksiana
Pinus sylvestris
Pinus strobus
Rhododendron canadense
Sambucus pubens
Sorbus sp.
Trientalis borealis
Tsuga canadensis
Vaccinium vitis-idaea
Vaccinium sp.
Viburnum alnifolium
Viburnum cassinoides

Lichens

Reindeer Lichen
 Rock Tripe
 Old Man's Beard



Cladonia sp.
Umbilicaria sp.
Usnea sp.

Birds

American Black Duck
 Ring-necked Duck
 Hermit Thrush
 Warbler
 White-throated Sparrow
 Dark-eyed Junco
 Purple Finch
 American Goldfinch

Anas rubripes
Aythya collaris
Catharus guttatus
 Family Parulidae
Zonotrichia albicollis
Junco hyemalis
Carpodacus purpureus
Carduelis tristis

The wet swale between the caretaker's house and the smaller barn had many Eyed Browns – always a chancy butterfly – and we got good looks at them. The only other satyr we saw at this location was Common Ringlet (not so common that day). We saw several Summer Azures, but the Silvery Blues didn't make an appearance – perhaps it was too late in the year. We also enjoyed some charming hummingbird clearwing moths, cute little bee imposters, but with giveaway bold black antennae.

The drumlin hill was hot and dry (and somewhat more vertical than usual), and while we enjoyed climbing it, there was little new to add to the list. The hoped-for Common Branded-Skippers were not located this time.

When we returned to the parking lot, some of the group broke off, but a few hardy souls pressed on the to Pockwock Road, and were rewarded with a few more species. The first new ones were our third satyr of the day, the showy Northern Pearly-eye. Several Pink-edged Sulphurs were netted and examined closely to convince us that they were not the much more common Clouded Sulphurs. The differences are subtle and it certainly helps to see them at close range (or through a good pair of binoculars) in order to be certain. Our final new species of the day was Bog Copper, located by the sharp eyes of Terry Paquet. These tiny coppers look much like blues underneath, but the top surface is a beautiful iridescent brownish-purple. We have seen them at a bog on this road some years, but most years they appear to be absent. We were hoping for a good crop of knapweed at the bridge, because this is always a great site for large fritillaries and other nymphalids, but alas the flowers were almost absent, and so we saw only a very few fast fly-byes, pretty much unidentifiable. We did get good looks at a huge damsel fly, the Ebony Jewelwing, as partial compensation.

All in all a delightful day, lots of good butterflies and pleasant company!

— Peter Payzant



BUTTERFLIES II

DATE: Saturday, 17 July
PLACE: Uniacke Estate Museum Park
WEATHER: Mostly sunny, 29 C, light winds
INTERPRETERS: Peter and Linda Payzant
PARTICIPANTS: 17

It was an ideal day for butterflying, and the seventeen eager participants saw lots of leps, both butterflies and moths. We had a total of four nets with us, and this allowed many people to catch, examine, identify and release butterflies on their own.

As usual, we started at Uniacke Estate Museum Park. Our first lep was a bright and fresh White Admiral flitting around the parking lot. As we moved up into the field behind the caretaker's house, we could see a good crop of Black Knapweed, always a good sign. There were plenty of skippers this trip, as well as many Northern Pearl Crescents. Before long, we were seeing Harris' Checkerspot, and we spent some time learning the differences between this and the similar Pearl Crescent. Unlike previous years, there were very few large fritillaries, but we did manage to have a good look at an Atlantis Fritillary and identify two good field marks: the dark border on the wings and the cool blue-gray eyes.

BUTTERFLIES II SPECIES

Pink-edged Sulphur	<i>Colias interior</i>
Summer Azure	<i>Celastrina argiolus</i>
Bog Copper	<i>Lycaena epixanthe</i>
Atlantis Fritillary	<i>Speyeria atlantis</i>
Harris' Checkerspot	<i>Chlosyne harrisii</i>
Northern Pearl Crescent	<i>Phycodes selenis</i>
White Admiral	<i>Limenitis arthemis</i>
Northern Pearly-eye	<i>Enodia anhedon</i>
Eyed Brown	<i>Satyrodes eurydice</i>
Ringlet	<i>Coenonympha tullia</i>
European Skipper	<i>Thymelicus lineola</i>
Peck's Skipper	<i>Polites peckius</i>
Tawny-edged Skipper	<i>Polites themistocles</i>
Long Dash	<i>Polites thymelicus</i>
Hobomok Skipper	<i>Poanes</i>



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.

“It is only here in large portions of Canada that wondrous second wind, the Indian summer, attains its amplitude and a heavenly perfection, — the temperatures, the sunny haze, the mellow, rich, delicate, almost flavored air: ‘Enough to live — enough to merely be.’”

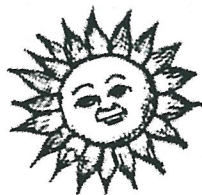
— Walt Whitman, *Diary in Canada*, entry from the summer of 1880

NATURAL EVENTS

- 22 Sept. Autumnal Equinox at 12:29 ADT: Fall begins in the Northern Hemisphere.
- 28 Sept. First anniversary of Hurricane Juan’s arrival in Halifax.
- 28 Sept. Full Moon — this is the ‘Harvest Moon’. Moonrise is at 10:09 ADT.
- 30 Sept. Average date for first frost in Halifax (Environment Canada says there is only a 1:10 chance of frost before this date). Look forward to 210 days of frosty weather.
- 27 Oct. Full Moon — this is the ‘Hunter’s Moon’. Moonrise is at 00:08 ADT.
- 27 Oct. **TOTAL LUNAR ECLIPSE!** The moon begins to enter Earth’s shadow at 23:14 ADT and clears it at 02:54. Optimum viewing will be around 00:20.
- 31 Oct. Daylight Savings Time ends (clocks are set back one hour to Atlantic Standard Time) at 02:00.
- 4-5 Nov. Venus and Jupiter in conjunction in the pre-dawn sky.
- 22 Nov. Daily minimum temperature goes below 0°.
- 26 Nov. Full Moon. Moonrise is at 16:08 AST.
- 7 Dec. Daily average temperature goes below 0°.
- 8-10 Dec. Earliest sunset of the year at 16:34 AST.
- 12 Dec. Moon at Perigee; unusually high tides follow for the next two days.
- 13 Dec. Geminid Meteor Shower.
- 14 Dec. - to 5 Jan. Audubon Christmas Bird Count Period.
- 21 Dec. Winter Solstice at 08:39 AST: Winter begins in the Northern Hemisphere; but though the temperature drops, the days begin to lengthen.
- 26 Dec. Full Moon. Moonrise is at 11:07 AST.
- 26-31 Dec. Latest sunrise of the year at 07:51 AST.

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

SUNRISE AND SUNSET ON AUTUMN AND EARLY WINTER SATURDAYS



4 Sept.	06:41	19:45	2 Oct.	07:14	18:53
11 Sept.	06:49	19:32	9 Oct.	07:23	18:40
18 Sept.	06:57	19:19	16 Oct.	07:32	18:28
25 Sept.	07:06	19:06	23 Oct.	07:41	18:16
			30 Oct.	07:50	18:06
6 Nov.	07:00	16:57	4 Dec.	07:35	16:35
13 Nov.	07:09	16:49	11 Dec.	07:42	16:35
20 Nov.	07:18	16:42	18 Dec.	07:47	16:36
27 Nov.	07:27	16:38	25 Dec.	07:50	16:40

— Courtesy of David Lane, Burke-Gaffney Observatory, Saint Mary’s University

ORGANISATIONAL EVENTS

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

- 20 Sept. “Nature Conservancy of Canada”, with speaker Dr. Bill Freedman of Dalhousie University.
- 18 Oct. “Ancient Shores of the Bay of Fundy”, with Chris Mansky from the Blue Beach Fossil Museum near Avonport.
- 15 Nov. “Walk the Long Walk (The Pacific Crest Trail)”, with speaker Janet Roberts.

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

Friends of McNabs Island: More info, Dusan Soudek, 422-1045; or go to <<http://chebucto.ns.ca/Environment/FOMIS/>>.
17 Oct. Rain date 24 Oct.! "Fall Foliage Tours".

Maritime Museum of the Atlantic: For more information, 424-7490; or go to <<http://museum.gov.ns.ca/mma/>>.
21 Sept. "Hurricanes of Renown", with Museum Research Associate Alan Ruffman.
28 Sept. "Bobbing Like Corks: Hurricane Juan & Ships in Halifax Harbour", with Mac MacKay.
2 Oct. A public forum to look back at Juan.
5 Oct. "The Tracking of Juan" with Peter Bowyer of Environment Canada's Hurricane Centre.

Nova Scotia Bird Society: Indoor meetings every 4th Thurs., Sept. to May, at the N.S. Museum of Natural History, 7:30 p.m. For more info, Suzanne Borkowski, 445-2922; or go to <<http://www.chebucto.ns.ca/Recreation/NS-BirdSoc/>>.
23 Sept. "Tips for Beginning Birders", with Suzanne Borkowski.
25 Sept. "Eastern Shore", with leader Peter Richard, 463-5612; <Prichard@ns.sympatico.ca>.
8-11 Oct. "Brier Island Bonanza!", led by James Hirtle, <jrhbirder@hotmail.com>; Terry Paquet, <terrypaquet@hotmail.com>; Fulton Lavender, 455-4966. For more info, Suzanne Borkowski, 445-2922, <sborkowski@hfx.eastlink.ca>.
28 Oct. "NSBS Annual General Meeting", followed by a wine and cheese reception.
13 Nov. "Canso and Area" with leaders Steve Bushell, 366-2527 and Tom Kavanaugh, <terri.crane@ns.sympatico.ca>.
14 Nov. "Antigonish Coastal Waters", with leader Randy Lauff, 867-2471; <rlauff@stfx.ca>.
25 Nov. "Forestry and the Ultimate Thrush: the Plight of the Bicknell's Thrush in New Brunswick" with Sara Chisholm.
4 Dec. "Cape Sable Island", with leader Murray Newell, 745-3340; <dowitcher@eastlink.ca>.
5 Dec. Storm date 11 Dec.! "Metro 'Hot Spot' Birding", with leader Terry Paquet, 452-3622 ; <terrypaquet@hotmail.com>.

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, at many museums, parks, and tourist bureaus, and on the web at <<http://parks.gov.ns.ca/programs.asp>>.

Nova Scotia Lighthouse Preservation Society: Meets monthly at the Maritime Museum of the Atlantic, and organises visits to lighthouses, including boat trips to islands. For more information, go to <<http://www.nslps.com/>>.
25 Sept. "On the Water Tours of Lighthouses in Halifax Harbour", email <jguptill@hfx.eastlink.ca>.
27 Oct. "Chebucto Head Lighthouse: Past & Future".

Nova Scotia Museum of Natural History: For more info, 424-6099, 424-7353; or go to <<http://museum.gov.ns.ca/mnh/>>.
- to 26 Sept. "Giants of the Sea: Leatherback Turtles", an exhibit created by the Vancouver Aquarium.
- to 11 Oct. "Five Crows Silver", with works by five Nova Scotian artists.
- to 31 Oct. "Sable Island Exhibit".
22 Sept. "The Atlantic Whitefish: Hope for an Endangered Species?", with Dan Hasselman of Dalhousie University.
29 Sept. "Willow Withes & Basket Lore with a Master Craftsman", with Werner Turtschi of the Swiss Open Air Museum.
29 Sept. - to 30 Nov. "Juan Remembered", an exhibit of paintings by Halifax artist Paul Hannon.
16 Oct. "Two Fall Colours Walks at Uniacke Estate Museum Park", with Museum botanist Alex Wilson.
20 Oct. "Mountains in the Maritimes: Exploring our Geological Heritage", with Brendan Murphy of St. F.X.U.
10 Nov. "Nova Scotia Landmarks" with photographer Len Wagg.
13-14 Nov. "Orchid Society Fall Show & Sale."
15 Nov. - through Apr. "Trace Fossil Mystery", an interactive exhibit.
17 Nov. "It's a Shore Thing; Human Impacts on Beaches", with Bob Taylor of the Geological Survey of Canada.

Nova Scotia Nature Trust: For more information, 425-5263; or go to <<http://www.nsnt.ca/>>.
23 Oct. "Annual Dinner and Silent Auction", with a comedy and music performance by Bette MacDonald.

Nova Scotia Wild Flora Society: Meets 4th Mon. of the month, Sept. to May, at the N. S. Museum of Natural History, 7:30 p.m. For more information, Charles Cron, 477-8272 (after 6 p.m.); or go to <<http://www.chebucto.ns.ca/~nswfs/>>.
27 Sept. "From Arizona to Southwestern California — Travels and Wildflowers" with speaker Anne Mills.
25 Oct. "Getting Your Lawn off Grass; Naturalising Urban Habitat", with Dr. Bill Freedman, Dalhousie University.

Photographic Guild of Nova Scotia: Meets 2nd Mon. of the month, and the 1st and 3rd Sundays of the month, N.S. Museum of Natural History, 7:30 p.m. Shows are held at Saint Mary's University, Theatre A, Burke Education Centre. For more information, go to <<http://www.photoguild.ns.ca/>>.
17 Oct. "In the Wake of the Vikings; Digital images of Iceland, Greenland, and Newfoundland", with Blake Maybank.
27 Nov. "Annual Fall Show".

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

— compiled by Patricia L. Chalmers



Nature Notes

From the September Meeting:

Vireos were reported; and also a Pileated Woodpecker. Someone queried their not seeing any Mourning Cloak butterflies; one person had spotted a Grey Jay.

Greater Yellowlegs were reported from Melmerby Beach. Also there: many more than the usual number of Chipmunks and Squirrels; Great Blue Herons making unusual appearances on the front 'ocean beach in the early hours, rather than the calmer 'back beach' mudflats; Deer on the banks above the ocean beach; two or three red dragonflies; muskrats; a large, beige Spring Peeper at eye level on a leaf in some bushes (August); a lone female Goldeneye; a flock of 15 - 20 fairly unconcerned Piping Plovers every morning on the beach; lots of small hunting terns, and gulls.

Jennifer MacKeigan reported a Groundhog visiting her bird feeder!

Jim Wolford spotted a tree Frog on Highbush Cranberries in Pictou County.

! NEXT DEADLINE !
21 November for December Issue
contributions to the Editor, HFN
c/o NS Museum of Natural History
or, 422-6326