

Blomidon Naturalists Society

Fall 2007 – Volume 34 Number 3

Blomidon Naturalists Society

The primary objective of the Society shall be to encourage and develop in its members an understanding and appreciation of nature. For the purpose of the Society, the word "nature" will be interpreted broadly and shall include the rocks, plants, animals, water, air, and stars.

(from the BNS constitution)

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The Blomidon Naturalists Society is a member of the Sable Island Preservation Trust and the Federation of Nova Scotia Naturalists (Nature Nova Scotia) and is an affiliate member of the Canadian Nature Federation (Nature Canada).

The Blomidon Naturalists Society is a registered charity. Receipts (for income tax purposes) will be issued for all donations.

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Contributions to the BNS newsletter are always welcome. Members are encouraged to share unusual or pleasurable nature stories through the pages of the BNS newsletter. If you have a particular area of interest, relevant articles and stories are always welcome. Send them to Jean Timpa by mail (1 - 25 Gaspereau Ave., Wolfville, NS B4P 2C5) or by e-mail <jtimpa@ns.sympatico.ca>.

Upcoming newsletter deadline

Winter, December 7, 2007

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Out and About

Congratulations are certainly in store to all those who helped make Nature Canada 2007 such a great success. It took so much planning and coordinating, but as a result a grand time was had by all!

So much for happy times. A few days ago it was reported that funding was cut to the Canadian Wildlife Service and several smaller environmentally oriented agencies for the rest of their fiscal year. Halting research, which, by its statistical nature often cannot be replaced, can destroy the value of long-term studies in progress. I encourage you, as individuals, to go after the powers that be with your intensely heartfelt objections. They still do not seem to understand the environmental problems of this struggling world.

The seasons of Hanukkah, Macy's Christmas, and Kwanzaa are just around the corner, which means a frenzy of buying ruinous amounts of things none of us really needs. The overall footprint by the time the new year comes is incalculable. Halloween is not much better.

How to avoid these traps? How to find meaningful ways to celebrate properly but simply? Make out well considered gift lists now, not while the pressure of the holiday is on, and stick to them. Consider buying locally made products, consumables, gift certificates at nurseries for spring plantings of trees, shrubs, and other perennials, online subscriptions.

If you're interested in buying carbon offsets, check out Gold Standard–approved retailers and projects <www.cdmgoldstandard.org>. According to the World Wildlife Fund, under whose auspices it was created, the main purpose of the Gold Standard is “to ensure that CDM (Clean Development Mechanism, a Kyoto instrument) projects are both reducing carbon dioxide (CO₂) emissions and fostering sustainable development.” By the way, tree-planting projects are excluded by the Gold Standard. Above all else, we all need to reduce our individual consumption and CO₂ production. Farley Mowat and wife set us a great example recently – buy a piece of land, preferably coastal, and let it go wild in perpetuity.

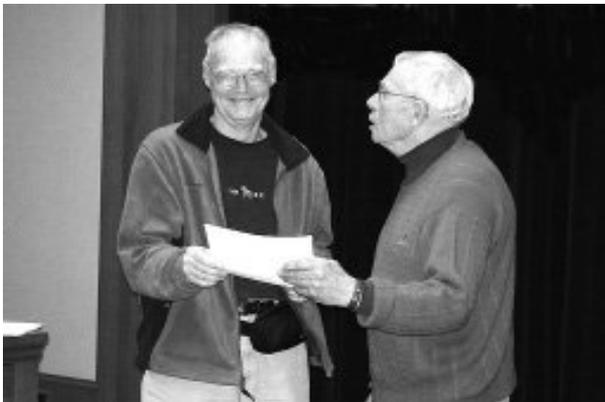
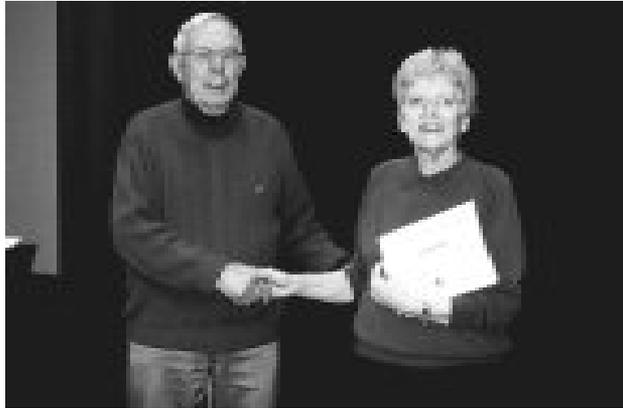
Jean Timpa, editor

Member News

At the March 2007 BNS meeting, three long-time members – Bernard Forsythe, Judy Tufts, and Jim Wolford – were presented with honorary life memberships in the Society. Bernard is featured on the cover of this issue, shown with a Barred Owl chick that he banded during a BNS field trip to his back yard on Wolfville Ridge this spring. Mary Pratt, our intrepid illustrator, was awarded a life membership at an earlier meeting. We will be honouring Mary in an upcoming issue of this newsletter.

Newly minted life members of BNS receive certificates from president John Harwood

Judy Tufts



Jim Wolford

Blomidon Naturalists Society

Fall 2007

Meetings

Unless otherwise noted, all meetings are held at 7:30 p.m., usually on the third Monday of each month, in the auditorium of the K.C. Irving Environmental Science Centre on University Avenue, Wolfville. Parking is available at Wheelock Dining Hall, along Crowell Drive immediately east of the Centre, at the Acadia Arena, the Student Union Building, or on Westwood Avenue. Everyone is welcome.

Monday, October 15, 2007 – From Polar Bears to Kiwis (of Three Kinds): Churchill to Fiji to New Zealand to Los Angeles and Vancouver, by Jim Wolford. This trip started in Churchill, Manitoba, then went to the west coast, then briefly to Fiji. While Hurricane Wilma was dropping large numbers of swifts, cuckoos, etc., on the shores of Nova Scotia, an airplane was dropping Jim off for a three-week driving tour of the islands of New Zealand. Come and see some of the natural wonders that he saw while there and in transit.

[Note: The BNS Annual Meeting is also held at the October meeting.]

Monday, November 19, 2007 – Farming Within Vibrant Ecosystems, by Dr. Ralph Martin, Nova Scotia Agricultural College. The presentation will address the value of vibrant ecosystems and how consumers can support farmers who produce food, fibre, and energy with respect for the integrity of ecosystems. Issues of economic growth, feeding the world, energy availability, and climate change will be considered. The possibilities for local and organic food will be highlighted.

Monday, December 10, 2007 – Treed Bogs, by Donna Hurlburt. In Nova Scotia, not all peatlands are afforded equal protection from forestry activities through buffer regulations. Our team has been evaluating the need for amendments to the Nova Scotia Wildlife Habitat and Watercourses Protection Regulations to include buffers around treed bogs. At present, treed bogs are excluded from these regulations, and

timber and peat harvesting are permitted within them. This is potentially of concern, since many species within these systems are rare and highly specialized, putting them at higher risk of future decline or extirpation. Further, treed bogs are our most common wetland and have the highest chances of being encountered during forestry activity. This study has focused on the impacts of forestry on biodiversity with treed bogs, with particular attention to invertebrates (dragonflies, horseflies, deer flies), peat mosses, woody vegetation, rare and specialized plants, and species at risk. Our team has also examined the impacts of forestry on the physical characteristics of peatlands, including peat composition, community shifts in vegetation over time, water chemistry, tree-ring growth, and wetland extent and form.

Monday, January 21, 2008 – Sediment in the Bay of Fundy. Elisabeth Kusters will present results by many different researchers on tidal currents and sedimentation in the greater Bay of Fundy. It turns out that there is still a lot that we don't know and understand. These uncertainties may also pose challenges for tidal power development.

Monday, February 18, 2008 – Annual Show and Tell Night. Open to all. Come to view or bring along slides, pictures, specimens, collections, fossils, videos, computer stuff, favourite books and magazines, or anything that might be of interest to fellow naturalists.

Field Trips

Unless otherwise indicated, all field trips will begin at the Wolfville waterfront park. Everyone is welcome.

Saturday, September 29, 2007 – Tidal Bore Watch. Sherman Williams (902 542-5104, <shermw@xcountry.tv>) will lead a trip to see the tidal bore at the Mantua bridge and again at Scotch Village. This field trip will be about two and a half hours long. The tides are at their highest for the year, so the tidal bore should be very good. We will leave the parking lot by the Wolfville wharf at 12 noon sharp (aim to be there by 11:50 am at the latest; tide and tide wait for no man!) and be at the Mantua bridge by 13:09 for the bore. Rain date is Sunday, September 30, in which case we

leave from Wolfville at 1 p.m. sharp because the bore at Mantua Bridge is predicted for 13:59 on Sunday.

Saturday, October 6, 2007 – Cloud Lake Wilderness Area Canoe Trip.

Patrick Kelly (902 798-3329) will lead a canoe trip in the Cloud Lake Wilderness Area. This should be a great time of year to see the autumn colours reflected in the lake. There will also be a chance to stretch your legs with a short hike along a portage to see the northwest end of Frog Lake. Bring a hearty lunch, water, drinks, and, of course, life jackets, canoe, and paddles. If you have access to a life jacket but not a canoe there will likely be extra room in one of the canoes. Check with the leader to be sure. Meet at 9 a.m. at the parking lot of Avery's Market on Highway 1 in South Berwick (about a 30-minute drive from Wolfville).

Saturday, October 13, 2007 – Astronomy Observing Session.

Join Roy Bishop (902 542-3992), Patrick Kelly (902 798-3329), and members of the Minas Astronomy Group to observe the night sky. Constellations will be identified by the use of a laser pointer. Telescopes will be on hand to view Uranus, Neptune (now the official outermost planet) galaxies, star clusters, and nebulae. Meet at 7:30 p.m. at the old parking lot at Grand Pre National Park. Bring binoculars (or telescopes) and be sure to dress warmly.

Green Dragon Family Hike

Sunday, October 14, 2007 – Gaspereau River Trail. “Green Dragon lives and plays in river and stream as protector of all natural cycles on Earth.” Welcome Autumn with all your senses! Join Char (coordinator of our Green Dragon nature camps) and Laurel McIvor (NS Museum of Natural History) for a family hike exploring this beautiful trail. At our own pace we will discover the animals and plants that make this spot their home, hunting for tracks and signs along our way:

- Look, listen, breathe in the scent of autumn!
- Critter Dip! Discover aquatic insects, snails, fish.
- Heads up! Bald Eagles fishing .
- Get to know the trees, moss, lichens, ferns.

Please bring sensible footwear, weather appropriate and extra clothing (shorts and sandals or rubber boots if you plan on river walking), water, and a snack. Contact is Charlane Bishop, naturalist coordinator – youth programming (902-542-2217). Meet at the Wolfville waterfront parking

lot at 1 p.m. and we will carpool from there.

Saturday, December 15, 2007 – Wolfville Christmas Bird Count.

The Christmas bird count is an annual tradition with, more than 40,000 participants from the high Arctic to southern South America. A vast pool of bird data has been created on the status and distribution of early winter bird populations and is studied by scientists and interested people the world over. The count area is a circle 15 miles in diameter where volunteers count all the birds they see on the count day. All levels of birders are invited to participate in the Wolfville count. You may be assigned your own area within the circle or join with others who might be more experienced. To participate, contact Alison Bogan, the compiler, at 678-0446 or <alison@bogan.ca> or at a BNS meeting before the count. As always, there is a \$5 fee for all participants over 19 to help cover the cost of generating materials for compilers, producing the annual CBC summary issue, and maintaining the CBC website and database.

Those with bird feeders in the count area (within 12 km (7.5 miles) of Hennigar's Farm Market) who prefer to count from there are invited to keep track of the birds at their feeders for all or any part of the count day and get that information to Jim Wolford at 542-9204 or <jimwolford@eastlink.ca>.

Following the count, around 5 p.m., all participants are invited to Richard and Liz Stern's for a tally count and chowder/chili supper. The address is 317 Middle Dyke Road, north from the lights at the intersection of Belcher Street and the dyke road from New Minas, just before Chipmans Corner. Richard and Liz can be reached at <rbstern@ns.sympatico.ca> or 678-1975. There is lots of room for parking and everyone is welcome.

Saturday, December 22, 2007 – Winter Solstice Family Frolic. Warm up on the longest night of the year as we celebrate the return of the sun and welcome the winter season. The winter solstice has been celebrated the world over for thousands of years. The Megalithic Passage tomb at Newgrange in Ireland was built over 5,000 years ago with an inner passage that is illuminated by the winter solstice sunrise. Astronomically, winter solstice is the shortest day and the longest night of the year, marking the beginning of winter when the sun is at its greatest distance from the equatorial plane in the northern hemisphere, this year at 2:08 AST. We will

gather under the almost Full Moon in the fields of Noggins Corner farm and set out on a night hike through the centuries-old pine and hemlock stand, watching for tracks and night life, visiting an 18th-century Acadian cellar and the Poor House graveyard, winding through the trail to emerge from the shadows of the trees to overlook the Cornwallis River. Will we observe two moons? We will make our way back to warm up around a roaring bonfire with hot apple cider and treats as we share a toast to a winter season full of light to all. Charlane Bishop (542-2217) and Harold Forsyth (542-5983) will be the leaders. Meet at Noggins Corner Farm in Greenwich at 6:30 p.m.

Saturday, December 29, 2007 – West Hants Christmas Bird Count. Patrick Kelly (902 798-3329, <patrick.kelly@dal.ca>) will be compiling the count again this year. All are welcome to participate, but please contact the compiler as soon as possible so that you can be included in the planning. Following the count, around 5 p.m., all participants are invited to Frank and Beth Wollaver's house near Brooklyn for a tally count and potluck supper. There is a \$5 fee for all participants over 19 to help cover the cost of generating materials for compilers, producing the annual CBC summary issue, and maintaining the CBC website and database.

BNS Youth Funding for Young Naturalist Program 2007 by Harold Forsyth

Financial resources for the BNS Young Naturalist Program were harder to come by this year following the federal government's \$7.6 million cut to grants and contributions to environmental groups, a \$55.4 million cut to youth employment programs that allowed community organizations and other non-profit groups to hire youth, and a \$4.6 million cut to the Museums Assistance Program – to name but a few.

Fortunately there are still government departments, organizations, and individuals with understanding and care for local community programs related to the education and protection of nature and the environment.

We received a generous donation of \$2,770 from the local chapter of TD Friends of the Environment Foundation. This money is raised locally by TD Bank and directed by an advisory board of local, knowledgeable volunteers. Our program fits nicely in their mandate of assisting young Canadians in understanding and participating in environmental activities in local communities.

Parks and People is a national funding program established jointly by the Parks Canada Agency and Nature Canada. Its goal is to forge the next generation of environmental stewards by connecting Canadians, primarily urban youth, to nature through learning experiences offered by passionate naturalists in Canada's natural parks. They were very generous in contributing \$4,525 to our program, which allowed us to purchase supplies and deliver bus trips, bringing more than 200 young people closer to nature. Parks and People is administered by Nature Canada, and we had the opportunity to participate in an excellent round table discussion on young naturalist programs during Nature Canada's annual conference held in Wolfville in August.

The Kentville office of the Nova Scotia Department of Natural Resources has been a staunch supporter of our program from inception with both monetary and professional volunteer support.

We were also fortunate to receive \$500 again from the Wolfville Rotary Club, as one recipient of the many worthwhile projects they undertake.

A number of individuals gave generous donations in support of this year's Young Naturalist Program. Special thanks to Fred and Nancy Chipman, Nancy Nickerson, Mary Anne Sulis, and John Harwood.



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Nature Canada 2007 Field Trip Report
Native Plant Walk and Workshop
By Melanie Priesnitz

August 2 – I had the pleasure of leading a group of Nature Canada delegates on an early morning hike through the Harriet Irving Botanical Gardens. This was a great opportunity to share some of the beautiful native flora of the Acadian forest region with naturalists from across the country. As the sun was rising we walked through the habitats of the gardens, including the bog, sand barrens, and the deciduous and coniferous woodlands. I could have talked about plants all morning, but the group kindly reminded me that their stomachs were empty, and after an hour and a quarter they headed off for breakfast.

That afternoon I had another wonderful group from the Nature Canada conference, this time for a three-hour native plant workshop. We started out by passing around a Queen Anne's Lace while introducing ourselves and commenting on what the flower meant to us. All of the participants, from BC to Nova Scotia, had seen the plant growing in their regions, and many had wonderful tales and memories associated with it. Most were surprised to find out that this wildflower that exists throughout Canada and is so much a part of our landscape is not a native plant. Queen Anne's Lace (*Daucus carota*) was introduced here from Europe as a medicinal plant. From this we defined what exactly a native plant is for us here in North America: a plant that existed here prior to European settlement.

After spending 45 minutes in the classroom discussing native plants and the ecological benefits of gardening with them, we headed out to the gardens. It was a hot afternoon, so we walked from shady spot to shady spot through the woodlands while discussing the plants we saw along the way. We took a break under the shade of an old willow tree and shared our successes and failures with native plant propagation and gardening. The workshop ended with a walk through the KC Irving Environmental Science Centre research corridor, where we took advantage of the building's geothermal cooling system and visited the plant dark room and growth chambers.

Melanie is the conservation horticulturist at the Harriet Irving Botanical Gardens

BNS Field Trip Report

Exploring Palmeters Woods

by Judy Tufts

June 16, 2007 – On this warm mid-June morning, a Chestnut-sided Warbler’s song greeted the 12 people gathered at the entrance to Palmeters Woods, behind the Evergreen Home for Special Care, at the west end of Kentville. Judy Tufts and Nancy Nickerson led this trip, combining the search for woodland birds, plants, and fungi.

It turned out to be an ideal day to head into the woodlands where the birds were already tuned up and wildflowers waited for us. Vireos (both Red-eyed and Blue-headed), American Robins (abundant throughout the woodland), Blue Jays, crows, and Yellow Warblers accompanied us along our way into these lovely woods, where there were many flowering plants and shrubs to admire: a Black Cherry tree (*Prunus serotina*), which was examined for black knot disease caused by a fungus (*Apiosporina morbosa*), Common Blackberry (*Rubus allegheniensis*), Bayberry (*Myrica pensylvanica*), Yellow Goatsbeard (*Tragopogon pratensis*), hawkweeds (*Hieracium* spp.), and many pretty little Blunt-leaved Sandworts (*Arenaria lateriflora*) and Lesser Stitchworts (*Stellaria graminea*).

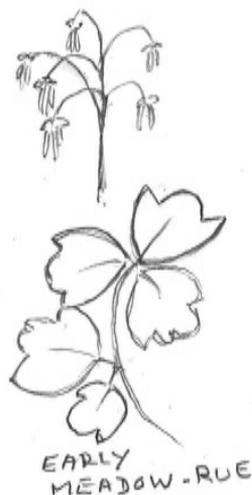
Once over the wooden bridge, the pace picked up with bird song: a Veery serenaded us with its spiralling calls, an Eastern Wood-Pewee whistled its familiar “pee-a-wee” refrain welcoming us to this mixed-woods area, and a Rose-breasted Grosbeak could be heard in the distance. These were followed by a variety of warblers – the Northern Parula, Black-throated Green, Ovenbird (also very abundant), Common Yellowthroat, Northern Waterthrush, and Yellow-rumps – while the Least Flycatchers “che-becked” from their perches and the cheerful little Black-capped Chickadees chatted happily away, all announcing their presence to us along the trail as we moved into the deeper woods. Apart from good viewings of an Ovenbird and a pewee we had to settle mostly for bird song and brief glimpses of birds flitting among the heavy foliage. Ovenbird and robin song accompanied us wherever we went. Later we heard Purple Finch, Evening Grosbeak, Red-breasted Nuthatch, Nashville and Black-and-White Warblers, Dark-eyed Junco, and Swamp, White-throated,

Chipping, and Song sparrows as well. We heard more than 30 species of birds on this walk.

Nancy showed us dainty, blooming Nodding Trillium (*Trillium cernuum*), Starflower (*Trientalis borealis*), Wild Lily-of-the-Valley (*Maianthemum canadense*), False Solomon's Seal (*Smilacina racemosa*), and Yellow Clintonia (*Clintonia borealis*), reminding us to frequently check around our feet for these woodland beauties. Other plants seen, but not in bloom, were Wild Sarsaparilla (*Aralia nudicaulis*), Spreading Dogbane (*Apocynum androsaemifolium*), Tall Meadow Rue (*Thalictrum polygamum*), shinleaf (*Pyrola* sp.), Virgin's Bower or Clematis (*Clematis virginiana*), and Lowbush Blueberry (*Vaccinium angustifolium*).

The previous day a friend had told me about seeing quite a few Pink Lady's-slippers in bloom further into these woods, so we had no problem coaxing the party to head that way. Our reward was at least two dozen pink orchid beauties spread out along the woodland path. Nancy and I were so impressed we thought that stretch of path should be nicknamed Pink Lady's-slipper Avenue. Flowering Bunchberry plants (*Cornus canadensis*) were profuse along this stretch of path.

Adding to the wonders of nature that day were fungi. We identified *Suillus* sp. (a bolete) and *Entoloma* sp. (a pink-spored, gilled mushroom) – both of which were being devoured by slugs – along with three species of polypores – the Birch P. (*Piptoporus betulinus*), Purple-toothed P. (*Trichaptum* spp.) and Red-Banded P. (*Fomitopsis pinicola*) – and a cup fungus (*Peziza* sp.). A beard lichen (*Usnea* sp.) could be seen hanging from spruce trees. As we were leaving the deep woods, a pleasure of a different sort occurred when two Jewelwing damselflies (*Calopteryx* sp.) danced around us (one perched briefly on someone's hat), while a Canadian Tiger Swallowtail butterfly flitted through sunlight ahead. Altogether a most satisfying outing.



BNS Field Trip Report
Aylesford Mountain
by George Alliston

July 22, 2007 – The morning began with heavy fog and gave every appearance of inclement weather, but by the time we assembled at Aylesford Mountain at 10 a.m., the skies had cleared and we enjoyed a warm, sunny summer day. Unlike last year, when an article in the Kings County Register and publicity by the Nova Scotia Nature Trust helped to bring out 42 participants, this year seven people participated in the walk.

The walk followed the same route as in previous years and no new discoveries were made during this trip. For a brief description of the property, its history and natural history, we refer you to the 2006 field trip report (and others) published in the fall 2006 issue of this newsletter (vol. 33, no. 3).

In 2006 we had noted that the colony of approximately 150 Goldie's Large Round-leafed Orchids (the largest colony currently known in the province) were suffering from what appeared to be a fungal infection; the plants appeared in poor condition and, although many had sent up spikes, none had produced blooms. This year the plants were present in similar numbers as before and appeared healthy but were considerably smaller than in previous years. About 55+ plants were in flower compared to none in 2006 and 119 in 2004. Bernard Forsythe took a series of measurements of the spurs of the flowers to verify whether these smaller plants would still be considered to be Goldie's Large Round-leafed Orchid (spurs > 30 mm). They all passed with flying colours! So it appears that the colony is still intact and recovering from the 2006 infection.

Three members of the group came equipped with new, highly sensitive GPS units. In addition to mapping the paths we followed, we were able to acquire a profile of the topography, since the units were sensitive enough to obtain accurate readings while descending into the "vault" created by Brown Brook, something we had been unsuccessful in achieving with older GPS units. Our thanks to Walter Urban for providing us with plots of these readings.

BNS Field Trip Report

Summer Butterflies

by Jean Timpa

July 16, 2007 – While this was billed as a butterfly walk, it naturally melded into looking at whatever we stumbled across or piqued our interest, and that is the way it should be. Thirteen of us assembled at the Wolfville Waterfront Park at 1 pm on a lovely summer afternoon and left for the east end of Long Island, Grand Pre, at the Guzzle, across from Boot Island. Those of us in the first vehicle saw a handsome Red-tailed Hawk on one of the power poles, preening its pretty red tail feathers. It was doing quite a balancing act up there in the capricious breezes.

Our first disappointment, and only one, I'd say, was that the grass and clover had just been mown at the top of the hill, where the bass fishers park their vehicles. It was not even raked up yet, but the flowers were gone where in the past we have seen many butterflies. However, not to be deterred, we looked at a couple of Cabbage White butterflies with their greyish-black wing tips and several black spots on the upper wing tip. I then showed the illustration in my Kaufmann Focus Guide to the Butterflies of North America of the Mustard White butterfly for contrast to illustrate the much lesser known white, which we have here in Nova Scotia. More reports of it are being documented. They are easy to confuse with one another, unless one watches each white butterfly going by. It was there that we also noticed tiny brown skippers flitting in among the thick grasses. They are never easy to identify, and we did not try very hard to unravel their exact name at that point, but later on, when we had seen many more of them, including one that Nancy Nickerson had resting on her hand for all to see for some time, I decided that they were the European Skippers. They were accidentally introduced into Ontario in 1910 and have been spreading across Canada ever since. They are weak fliers and have one brood. About three or four years ago, on a similar walk we had unfathomable numbers of them in the same area.

While I was explaining about the two kinds of whites I suddenly heard the repeated call of a Nelson's Sharp-tailed Sparrow nearby. Several people saw the male sitting nearby on top of a piece of grass, making his strange fizzy call, before he became too shy and disappeared. Jim Wolford

had wandered off to see if a nearby patch of fireweed was attracting any butterflies but instead found a female Yellow Warbler gleaning the petals for food with which it soon flew off to its young. Jim was pleased to have CF for his atlas square.

We were just about to leave when a family of fishers came over the bank with two Striped Sea Bass about six pounds each. So they told us about fishing, and their plans for a barbecue. Joanne Bezanson took a photo of one of the teenage girls with her bass (“My teacher doesn’t believe me that I catch them,” was her quote of the day). Joanne promised to send the photo to her on the computer in the evening. The girl had also gathered some pieces of Eyed Finger Sponge from the beach, so Jim was able to name it for them and explain about colonial animals. He also mentioned the colonial Bryozoans, which they seemed to know from their adventures by the sea. The same young lady volunteered that she once picked up one of the sponges, dislodged by the storm wave action, which was about three feet long. We would like to have seen that specimen!

We then started back west to the end of a large corn field and turned left down an old farm road not much travelled. We stopped the cars and walked for several hundred metres, spotting more European Skippers every time we stopped, Cabbage Whites, a Clouded Sulphur (not many yet), and a Red Admiral briefly. I gave an account of how this species can migrate here in huge numbers, and this year is looking fairly interesting in that respect. Joanne was pretty sure she saw a Black Swallowtail butterfly, but it was just a little too windy for truly good observing, so that, unfortunately, butterflies were being snatched away from us before we could see their lovely colours and patterns, or point them out to others in our group. Several other people went out ahead “scouting” and saw a Viceroy, which had some wing damage but was still flying ably enough.

The most interesting surprise at this stop was a very keen-eyed find by Suzanne Cleary, when she noticed an all-white spider on some daisy petals with a small bright red mark on its back. A member of the Thomisidae or Crab Spider family, the Misumena and Misumenops members are known as the flower spiders, who slowly change their colour to match whatever flower they choose to rest upon to catch their prey. They do not spin silk, can move forward, backward, and sideways just like a crab, and apparently have a toxin potent to bees, flies, and other insects much

larger than themselves. They sit on the flowers with upraised forearms (two on each side) and grab whatever comes too close. My first encounter with them was awhile ago now in Hants County, when we discovered many of them, this time very yellow, on the Yellow Lady's-slippers on a BNS walk. This is the first white one I have seen. I wonder how many different colours they can mimic, and ponder the biochemistry involved to accomplish all the changes.

Further down the road we were attracted to a huge field planted to a mixture of what I believe was oats and a very tall, robust pea in blossom, just like a giant sweet pea! I suspect it will be turned into silage. There was a lot of blue vetch in blossom, wild roses, and white yarrow along the road and ditch. A few of us glimpsed a butterfly further down the road, silhouetted against the sky briefly before the winds flung it away to the southeast. It was so large that it could not have been anything else but a Monarch. There were the ever present European Skippers, another Red Admiral, a tiny white moth disturbed and captured gently by Nancy on her hand for all to see, and then a few minutes later she brought us a Stinkbug to observe. Jim found a very young poplar tree near the ditch being attacked by galls as well as aphids, and the aphids, in turn, were being nursed by many ants. The wind was picking up, hurling the clouds to the southeast into big bunches that were turning greyer by the minute. Roy Bishop pointed out the very definite line of clouds over our left shoulders as we faced west, where the NW winds had picked up the moisture off the land and blown it to that part of the sky, and the very clear skies over our right shoulders. The wind was acting like a giant broom. Larry Bogan was wistfully looking at the lovely thermals and explained that, if he were hang gliding, he would be going along that edge and not in the middle of the turmoil growing above us. Because the weather was becoming more unkind for delicate butterflies, we were seeing fewer of them. We did see one honeybee in the vetch, and on a side foray Jim and several others reported seeing quite a few bees in the same flower, a member of the pea family. A deer fly attempted to bite Jim but was quickly discouraged. I was surprised we had not seen more of these painful biters.

In various places along the way we heard or saw Savannah Sparrows, Song Sparrows, and crows, of course. We saw a few damselflies and dragonflies, too, but the wind was taking them too fast to even begin to name them. On our last stop where I had seen some white clover, we spent

most of the time looking at plants because the butterflies were sensibly taking shelter from the cooling air and impending sprinkles, which they seem to know about before we do. I pointed out Scentsless Chamomile (*Matricaria maritima*), which can become a very invasive nuisance on land left fallow and can be easily mistaken for a small malnourished daisy, if one does not look at the leaves carefully. Someone quickly produced its cousin, Pineapple Weed (*M. matricariodes*), good for tummy troubles, supposedly. We also discussed the pros and cons of Goat's-beard, or Salsify, a tall weedy member of the aster family. It is a nuisance in gardens and waste places, spreading almost as fast as dandelions. However, I am always fascinated by the perfect seed heads, before the winds blow them apart. The geometry of the interlocking seeds is some of the most intricate and beautiful I have noticed in nature.

About 4 p.m. a few sprinkles on the windshield sent us scurrying for home, and about 45 minutes later we had in Wolfville about an hour of heavy rain, the result of all those clouds piling up. I'd like to thank everyone for watching for all sorts of goodies to share with one another – there is nothing quite like show and tell.



NELSON'S
SHARP TAILED
SPARROW

Nature Canada 2007 Field Trip Report

The Guzzle

by Jim Wolford

Early morning, August 6 – I had a group of seven birders out at the Guzzle (northeast Grand Pre dikelands), and we were fortunate, thanks to a pair of sharp eyes from Victoria, BC, to find a male Nelson’s Sharp-tailed Sparrow that was incredibly cooperative, perching on a rock on top of the dyke just south of the Guzzle and singing repetitively and very often for several minutes for good views with our scopes.

We also had good viewing of the flying flocks of peeps and close views of Least Sandpipers, Semipalmated Sandpipers (one with a metal band low on the right leg and a white flag band above the “knee” on the right leg), Semipalmated Plovers, and a single White-rumped Sandpiper. We also saw three Black-bellied Plovers at the Guzzle. Two were in adult plumage, the third in winter plumage.

Once again the major site of action from the peeps, a few thousands of them, about two hours after high tide, was at the east end of Evangeline Beach, where the trees end, west of the Guzzle. The peeps were flying about and landing and having a feeding frenzy as the tide was ebbing. This spot is accessible by walking west along the dike from the Guzzle, or east from the area of the Evangeline Beach motel and canteen.

Nature Canada 2007 Field Trip Report

Gaspereau River

by Bernard Forsythe

August 2, 3, and 4, 2007 – Up to a dozen eager naturalists joined me on each of the three outings I led up the nature trail from the White Rock bridge. All found something of interest and several, especially those from western Canada, had firsts to add to their lists. Subjects looked at and discussed ranged from the steep, treed banks on each side of the ravine to the birds, animals, and fish of the area. We spent much time on the rich plant life along the river banks.

August is not the best time of the year to find birds along the river, but we did hear Eastern Wood-Pewee, Blue-headed and Red-eyed Vireo, Veery, Ovenbird, Black-throated Green Warbler, and Rose-breasted Grosbeak. A Bald Eagle and a Belted Kingfisher were spotted flying upriver. A few species of dragonflies also hunted over the river.

Nancy Nickerson helped with the fungi as well as the plant life. Pickerelweed, Joe-pye-weed, Coneflower, and Spotted Touch-me-not were in flower, while Jack-in-the-pulpit, along with many other species were past flower. We noticed Ground-nut and clematis vines around the thick vegetation of the intervale. Christmas, Ostrich, Cinnamon, and Royal Ferns were plentiful. Below the bridge some of us looked at Swamp Milkweed, Monkey Flower, and Sweetflag with its strange finger-like flower head jutting at an angle from the side of its tall stem.



This section of the Gaspereau River is also rich with human history. We looked at several of the mill and dam sites of the past along the rocked up river road built 100 years ago in a failed attempt to build a large electrical and pulp mill upriver. It now has become a footpath for many to enjoy the solitude of this magical river through the ravine.

Nature Canada 2007 Field Trip Report

Dike Walks

by Jean Timpa

Early morning, August 2–5. Thursday, Saturday, and Sunday mornings at 6:15 a.m. I repeated my favourite walk out onto the Bishop-Beckwith dikelands, which start at the end of the Victoria Avenue extension just across the now-defunct railway. All three mornings my guests were able

to hear, at least, the odd fizzy call of Nelson's Sharp-tailed Sparrow, and for some it was a "ticker." On Sunday morning we were able to see some, but only briefly, as they do not light for long. On Thursday morning a Pied-billed Grebe was also heard calling by Eve Marshall, head of Bird Protection Quebec, probably from the sewage ponds, but we did not have time to go out that far to see if we could see it. Eve is heading up next year's Nature Canada conference in Montreal.

On Saturday morning, sharp eyed Wendy McDonald noticed a bird struggling against the gusty winds blowing down the Cornwallis River, trying to land on the half tide below us among a flock of swallows, which were probably Bank Swallows but not really possible to ID. I found it unusual to see them skimming the top of the water, because it was salt water! The bird among the swallows turned out to be a Red Phalarope (Wendy, Judy Tufts, and I had a good look at it).

On Sunday morning our highlights were a flock of six Canada Geese in flight, probably a family group, and Greater and Lesser Yellowlegs in Wolfville Harbour on our way back to the dining hall. They were dining, too, on critters in a recently exposed bit of mud, standing shoulder to shoulder, so the contrast in size was noticeable. Each group was disappointed not to be able to see and hear Bobolinks. Our dike is super cultivated, so there are no longer hayfields as in the Belleisle Marsh on the Annapolis River. There are a few Bobolinks further out in the Hortonville area.

Nature Canada 2007 Field Trip Report

Garden Tour

by Jill Webster

Saturday, August 4 – A small group gathered to visit four gardens in the Wolfville area.

Reg and Pat Moore, 654 Main Street, Wolfville. Reg was kindness itself, leading us around his beautiful gardens for more than half an hour. Owning a historic home, Kent House, it's not surprising he had a lily pond, a formal front garden, and a rock garden whose rocks were ancient corals. Reg

showed us his amazing butternut tree, too. Walking through his garden were five entranced field naturalists who asked many questions. When we left, having admired the historically accurate replica gazebos and arbours, I think we all breathed a huge sigh of contentment.

Nancy & Fred Chipman, 32 Kent Avenue, Wolfville. Fred and Nancy greeted us just as warmly at their home on Kent Avenue. We saw the most amazing variety of beans, artichokes, woven garlic strands, and amaranths, not to mention pear, cherry, and apple trees. Their compost area was just huge, but everything was incredibly tidy, and yet there were parts of the garden where I felt it would be perfect to meditate on the natural wonders of nature – among the Virginia Creepers, perhaps.

Shirley Marston, 10 Slayter Road, Gaspereau. Again, the formal gardens with many rose bushes and iris competed for attention with the clematis that covered two sides of the garage. Shirley has very artfully designed her garden so that every available space has been used to maximize the beauty of what she grows. Shirley told us her first pride and joy was her rock garden, and she seemed very fond of the wonderful seating areas she has devised, one of which surrounds a pond with a fountain.

Rosaleen McDonald, 1261 Forest Hill Road, Gaspereau Mountain. Many thanks go to Rosaleen, who organized the whole tour for us. Her home on the top of the hill was a gorgeous finale, with lemonade and freshly picked highbush blueberries for refreshment. Rosaleen showed us her white garden, her rock garden, and several colourful sections devoted to lilies. While we were there, the blue gentians particularly caught my eye. As the time went on, thunder started over Blomidon Head, and we heard it rolling toward us. Luckily, while we were witness to some startling bolts of lightning, they were not too close.

All in all, this was an amazing adventure. A couple of visiting Valley Garden Club members joined us on the way. I feel envious of all they have to offer and share, and their knowledge of plant cultivation was incredible.



ASTER

Natural History

Radon in Nova Scotia

by Jean Timpa

On March 31, Dr. Svetlana Barkanova of the Acadia physics department invited members of the Blomidon Naturalists Society to join her for a presentation on the very practical problems associated with uranium-bearing rock and off-gassing radon. Many of our rocks, especially some of the granites, are “hot,” with fairly high levels of uranium. When the uranium breaks down, it emits the colourless, odourless, radioactive radon gas, which is undetectable except by equipment such as the sophisticated and expensive RAD7 solid state radon-detecting device or a much less-expensive commercial version available at a number of hardware stores for a rental and results fee of approximately \$100.

High levels of radon and smoking in our homes, places of work, and government buildings are responsible for more than 21,000 deaths due to lung cancer annually in North America. Health Canada statistics for 2000 state that 1,600 Canadians died of lung cancer, and that could be reduced by a third if exposure to radon, the second leading cause of lung cancer, could be entirely curbed.

Radon is released from uranium-bearing rocks and soils and travels until it enters our basements, where it concentrates and then moves upward into other living areas. Radon can also diffuse into water sources. This seepage into our habitations can be corrected by extensive ventilation or by super-careful sealing of the basement areas. New building standards will immediately lower the acceptable radiation levels from the American standard of 800 becquerels per cubic metre (Bq/m^3) to 200 Bq/m^3 . Health Canada has also proposed that the limit set for new homes be set at 100 Bq/m^3 . For more information you can contact Health Canada at 1 800-668-2642.

Dr. Barkanova and Ryan Gessner, a fourth-year honours physics student, have been collecting data by encouraging high school students in Kings County to use the RAD7 detector in their own homes, applying practical physics at an early point in their introduction to this branch of science. The departments of geology and computer science and researchers with the

Nova Scotia Department of Natural Resources have also been involved with this project. Health Canada will soon begin radon testing in our schools and other public buildings. Dr. Barkanova and Gessner knew they would find some radon, but they had no idea how many locations they would find with high levels. They found enough to be concerned about. As Dr. Barkanova said (reported in the Kentville Advertiser, April 3, 2007), their research “went from hypothetical to very real.” Now it is her dream to map all of Nova Scotia as quickly as possible.

This is certainly a most worthwhile and fascinating example of the melding of a university research project with the practical education of high school students and helping the surrounding community identify and overcome a potentially serious health problem.

Natural History
Bird Nests Recorded – 2007
by Bernard Forsythe

This marks the 33rd year I have submitted nest records to the Maritimes Nest Records Scheme, run by the Canadian Wildlife Service. An early memory as a preteen is of finding Song Sparrow nests in an old orchard while looking for wild strawberries. Now, as a senior citizen in another old orchard, I still find Song Sparrow nests interesting. One well hidden in the base of a thick clump of young goldenrod held four eggs on May 30. On June 16 four young were dead in the nest with an adult also dead beside the nest, none showing injury. A visit June 19 revealed the nest undamaged but no sign of the bodies. How they died remains a mystery.

Barred Owls took advantage of an increase in the Meadow Vole population, resulting in 27 young owls fledging from my nest boxes this year. Now that others are also putting up boxes, I was able to record ten additional young owls fledging from three boxes in Kingston and two boxes on the North Mountain. When birds of prey first hatch, extra food is often found in the nest. On April 23 there were 30 Meadow Vole carcasses piled around the walls of the owl nest box behind our house. On April 30

another nest box held 35 voles with four young owls huddled in the small space left available. Another surprise this year was the remains of a small (probably a male) adult Sharp-shinned Hawk in a Barred Owl nest box in White Rock. I was able to read the leg band of the female owl at this nest. She was banded in my nest box on Melanson Mountain May 23, 1998. After fledging, she nested only 8 km from where she had hatched.

Cavity-nesting ducks also need help finding a place to nest. My brother Arnold and I monitor several boxes around Black River Lake. This year five boxes were occupied by Hooded Mergansers, one by a Common Merganser and one by a Wood Duck. Again this year, Black-capped Chickadees and Tree Swallows nested in boxes in our yard. It is very rewarding to find one's nest boxes occupied.



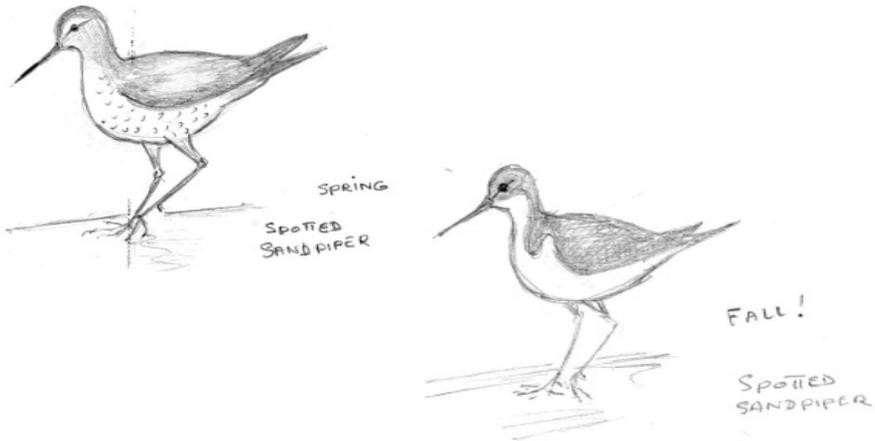
A few of the other nests recorded this year include Goshawk (female very aggressive), Spotted Sandpiper, pheasant, Phoebe, Blue-headed and Red-eyed Vireo, White-breasted Nuthatch, Yellow Warbler, Black-throated Green Warbler, Rose-breasted Grosbeak, and several Red-winged Blackbird nests. The beautiful eggs of Kingbirds found nesting in an old stump in Methals Lake was the highlight of a canoe trip. A pair of Alder Flycatchers laid their first egg July 28, and the young left the nest August 25, very late for this species. Cedar Waxwings also nest late. Several of my nine nests still held young in early September.

Goldfinches wait for weed seeds to mature before nesting. When one looks at Goldfinch young before they grow feathers, seeds will be seen in their crops through their thin neck skin. A heavy Knapweed bloom brought many Goldfinches to our area. Some of my 25+ nests still hold young at this writing in early September. The nests are easy to spot, low

in young trees or bushes along roads and field edges. The adults gentle “bay-be bay-be” calls will signify you are near a nest.

Each bird nest has its own story, and recording results enables others to monitor breeding success. A nest card is filled out for each nest found. From a rough count by the time records are completed I will be submitting about 110 nest cards for 2007.

It is now time to repair nest boxes for the 2008 nesting season.



Seen in the Acadia Woodlands
Nature Counts!
by Nicole Oliver, BSc (environmental science)

Bark mulch, moist and spongy
Thick, green vegetation
Silence, save for the rhythmic tapping of a Pileated Woodpecker
Deep, earthy smells rising from fallen logs and black soil

It is hard to believe that summer is slipping away into fall. The goldenrod and asters are in bloom, a sure sign that the leaves will quickly be turning and we will return to the hubbub of another year. It has been a busy summer, with the Nature Canada and SAMPAA conferences and the day-to-day rush.

Nature Counts has evolved from last summer: In addition to cataloguing the flora and fauna that fill the woodland trails at Acadia University, we have had special-focus walks at which attendees were able to gain new knowledge or share in their areas of expertise. Our first special-focus event was a birding hike led by Harold Forsyth. We met at 7 a.m. at the Harriet Irving Gardens and hiked the woodland trails. We started off with Chimney Swifts and wound our way through, sighting (and hearing) vireos, nuthatches, sparrows, flycatchers, and finches.

Our second special-focus evening was led by Peter Romkey, director of the Irving Centre, who talked about the history of the woodland trails, when the land was farmed by the university students, and about how many of the non-native species were introduced to the trails. Peter also has a background in forestry, so he was able to impart lots of information about the species we have in our back yards.

Melanie Priesnitz, conservation horticulturist at the Gardens, led the third special-focus evening, on native flora. Melanie has an incredible memory and an exceptional knowledge about the plants that grow in our region.

Ruth Newell, curator of the herbarium at the Irving Centre, led the fourth special-focus evening, on ferns. This evening was highly anticipated and well attended.

The fifth special-focus evening was led by Suman Gupta, a master's student in biology at Acadia University. Suman's research focuses on CO₂ levels and the role they play in plant development and growth. She shared her knowledge of invasive species.

As well, we added about half a dozen new species to our database and developed a species checklist to be used next summer by Nature Counts participants who wish to keep their own records.

Thank you to all of the BNS members for their dedication to this project. It has been a great two years of hiking and learning.

Nicole was involved in the environmental education program this summer at the Harriet Irving Botanical Gardens, Acadia University

Conference Report

Time & Tide

by Larry Bogan

Time & Tide, the five-day Nature Canada conference hosted by Nature Nova Scotia at Acadia in August, was a very rewarding experience for all attendees. The weather was wonderful, and all the comments I heard were very positive about the events and program. For more details and some reports, I refer you to the conference website: <nature2007.ca>.

About 155 people registered for the conference, plus speakers, guests, and field trip leaders. Every province was represented, but we were disappointed in that only six people came from our neighbouring Atlantic provinces. Of the 81 registrants from Nova Scotia, 41 helped with the conference in some way or other. More than 26 naturalist and other organizations set up displays in the dining hall. Jim Legge was a particular hit with his extensive collection of native artifacts.

At the Saturday evening banquet, we announced raffle and silent auction winners and Nature Canada presented the prestigious Pimlott Award to George Archibald (a native Nova Scotian), the Volunteer Award to Pierre Gratton, and the Affiliate of the Year Award to Nature Nova Scotia.

The conference ended with the Nature Canada AGM Sunday morning (see <www.naturecanada.ca>) and some afternoon field trips. The 2008 Nature Canada conference and AGM will feature the natural history of the St. Lawrence River June 12–15, 2008, in Montreal. For information, see <www.pqspb.org/NCconf_2008/nc08_home.htm>.

Special Thanks to BNS Members

The conference would not have been a success without all the contributions by the many BNS members who volunteered to speak, lead field trips, help with registration, maintain displays, and help with many other tasks. Of the 30 field trip leaders, 20 were BNS members, and of the 20 people on the organizing and support committees, 13 were BNS members. The conference website lists of most of the people who helped at the conference. Thank you very much, BNS, for all you contributed.

Natural History
Shipwrecked: The Life of a Parasite
by Dave Shutler

Part 2 – The Shotgun Strategy

My last essay (Spring 2007) concluded that there are hardships to being a parasite, and I tried to convince you that parasites deserve our sympathy. I hope I succeeded at the former even if I failed at the latter. One hardship of a parasite's lifestyle is hinted at in the title of this series: Many species of parasites finally get to their Island of Plenty and finally have enough food to become adults. But many adults are constrained to stay on their Island; they may be so completely rooted in the Island or so unprepared for the challenges of the surrounding waters that they are essentially shipwrecked. However, if this parasitic lifestyle is to persist, shipwrecked adults must produce surviving progeny (the biological imperative). If the progeny are produced to stay at home, the Island could become overcrowded, leading to various forms of parasite (and possibly host) starvation. Moreover, the islands in this analogy are ephemeral; hosts eventually die, and with them so could whole families of shipwrecked parasites. To leave behind a legacy, a parasite needs to send its progeny across the waters to new islands, hopefully ones without too many other shipwrecks, and hopefully ones that will survive long enough for the next set of progeny to be produced. Parasites accomplish this by producing eggs, larval stages, spores, or things of that ilk. I'll skip additional technical terms because I can't remember them, and they don't change the story anyway. The important thing is that parasites produce some kind of dispersal stage (a "propagule") that carries their genes from host to host. Parasites that do this have the capacity to persist over evolutionary time.

Producing propagules that find new host islands is challenging. Let's stretch the analogy even further and make host islands not only ephemeral, but also mobile (immobile if your host is something like a barnacle). One approach is to produce a continuous barrage of propagules, in all directions all the time (analogous to hit radio), to hit these moving targets. I call this "the shotgun strategy." Accordingly, it is cliché that parasites are reproductive factories, churning out propagules at an astonishing pace. The statistics are captivating: One malaria propagule from a mosquito

bite can produce 4.6 billion parasites in a human host in 14 days! A 49 cm-long (eek!) female *Ascaris* nematode can have 27 million eggs in her body, of which 200,000 may be laid per day! But is this really a parasite-specific trait? It's easy to get that impression if you compare the rate of reproduction of hosts and parasites. But is that a fair comparison? Shouldn't we compare the reproductive rates of parasites with their free-living relatives? In other words, are high rates of propagule production something that evolves once an organism becomes a parasite, or are high rates of propagule production a prerequisite of being a successful shipwreck that passes on its genes? The evidence favours the latter explanation; parasites need not be more prolific reproducers than their free-living relatives, and it's likely that a free-living species with low rates of propagule production may be unable to make the transition to a parasitic lifestyle. But I digress.

For a species to maintain a stable population size, only one survivor (two if the species reproduces sexually) need be produced out of all the progeny produced during an adult's (or a mated pair's) lifespan. If all malaria parasites and nematode eggs survived, it would be a matter of days before humanity and all other biota would suffocate. So, if a mated pair of adult nematodes averaged 1,000,000 eggs in their lifetimes, something fatal must happen to, on average, 999,998 eggs, and to any similar mass-produced propagule. Metaphorically, every propagule must run the gauntlet through seas that may contain predators or diseases and, surviving those, encounter a host before its energy reserves are used up and it starves. The laziest way a propagule could do this would be to sit and wait for a mobile island to chance by, maybe sleeping until something like stomach acid (versus a prince's kiss) wakes it up inside an unsuspecting host. The most athletic way a propagule could approach the gauntlet would be to swim full bore, hoping that an island gets in the way. Because humanity is not suffocating under piles of parasite propagules (he wrote alliteratively), it is evident that the huge majority of propagules are doomed to failure, wasted experiments. (It's also sad that shipwrecked parents never know how their children fared.) Nonetheless, the persistence of parasites against such formidable odds is testament to the value of a shotgun strategy, and evidence that some experiments succeed. But the shotgun strategy is so wasteful. Surely there are ways to improve the efficiency of moving from island to island; who wants to lose so many children in hostile seas? We'll see next time.

Seen in the Wild
Summer Birds 2007
by Mike McCall

Of Bats and Birds

Most creatures keep their distance from the flightless, finless lumpen creature, man, having been provided with a sensor that says “stay away from this one; he’s bad news.”

This thought is prompted by James Hirtle’s recent joyful experience with a flock of crossbills, reported in the last (summer) issue of this newsletter.

“Wonder,” “awe,” “thrill,” and “delight” invariably appear in stories like James’s. A series of pictures of a woman with icing sugar in her hand, being swarmed by hummers has been circulating on the Internet for some time. A young Junco walked over my feet and up my leg looking for crumbs as I enjoyed a lunch break while canoe tripping on the French River. And most of us have heard the “thruuuuuuppppp, thruuuuuuppppp” of a cheeky Chickadee’s wingbeat in our ear as we refill a feeder, or had seed taken from the hand. When this kind of contact occurs we feel we have been singularly blessed, some of our many sins (as a race) forgiven.

Bats

Bats – habitat, roosts, and abbreviations for same – were the topic of discussion on the NatureNS e-mail forum for several days in August. My own reference to an LBB was queried: “What does LBB mean? Lesser Black-backed Gull, or what?” From the context, I assumed all readers would twig to the fact I was talking about the Little Brown Bat, but I learned that those of us who toss out terms like LBB, or LBJ (little brown jobs) as shorthand for (usually) an unidentified sparrow or similar sized bird, or BSLB (Brown Spruce Longhorn Beetle) in a public forum would avoid confusing people not familiar with shorthand terms by including the plain language meaning of the abbreviation.

More interesting was the discussion of preferred roosts for LBBs (Little Brown Bats). Jean Timpa reported that years ago she was able to watch bats roosting on shutters closed over windows during the day, and moved on from that to noting that they have been known to take refuge inside

closed outdoor table umbrellas. Others suggested the best location for bat boxes, but, grumbling a bit, I took mine down for lack of customers after it had hung unused for six years in an ideal site. Hugh Broders at St. Mary's University pointed out that it was nothing personal; I didn't become a batlord simply because the bats had sussed out roosts better suited to their needs. Another reader sent in this most interesting note:

I've never tried this one myself, but a book I own suggests an easy way to create daytime shelter for bats: The "bat wrap" is a piece of piece of sheet metal that has been painted black or a piece of heavy-duty roofing paper. This is wrapped around the trunk of a tree that is in full sun and free of side branches. The "wrap" is stapled or nailed with roofing nails in such a way that it is tight at the top but flares out approximately two inches at the bottom. Bats will climb up under the wrap and can move around the tree to warmer or cooler areas as their needs change through the day. The wrap should be placed as high on the tree as possible as long as it remains in full sun; there has to be enough open space under the wrap so that bats can fly up into it.

I'll end this batty entry by quoting Hugh Broders' most interesting survey



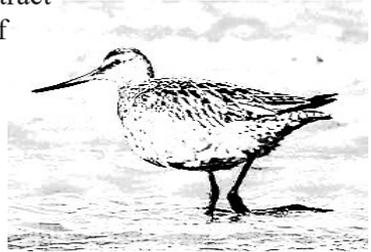
of the factors influencing the selection of roost sites:

Roost sites selected by bats will vary, unsurprisingly, by many factors, but probably most importantly by environmental conditions and reproductive status. During the summer months bats often use torpor to facilitate conservation of energy and this is best achieved by finding a cooler environment. However, it has long been believed that use of torpor by pregnant females might slow fetal development, and therefore pregnant females select warmer roosts (e.g., exposed to the sun) that decrease the metabolic costs of maintaining homeothermic body temperature. Recent evidence casts doubts on this and suggests that even pregnant females use torpor more often than expected, with apparently little impact on date of parturition (giving birth).

Another point that might be worth making is that females of the species that we have here in Nova Scotia are highly social in the summer months, and therefore individuals may also be selecting places to roost based on where their mothers/sisters/daughters/ etc. are roosting. Adult males on the other hand are, primarily, solitary roosters and are more likely to be the ones found roosting in the umbrellas and other man-made roosts.

Bar-tailed Godwit

Balloonists and heavier-than-air fliers attract a lot of media attention on completion of transoceanic or round-the-world flights, but unlike the Bar-tailed Godwit, they have to do it in high-tech contraptions and usually take a lunch. Satellite tagging of godwits has established these birds as the champs of migration.



A female, known to her trackers by the uninspired identifier “E7” (why not Britney or Paris?) recently did a nonstop leg of 10,200 km from New Zealand to Yaiu Jiang in China and a second leg of 5,000 km from there to its Alaska breeding grounds. On the return trip to NZ she logged another leg of 11,500 km. The technology used – satellite tracking – allows scientists to confirm that the bird does not stop to rest or feed, unlike seabirds (think Arctic Tern) or swifts, which feed in flight.

Seen in Upper Canada
Spring Birding
by **Bernard Forsythe**

A mid-May 2007 trip to visit our daughter and family in Burlington, Ontario, enabled me to compare Southern Ontario birding with spring birding in Nova Scotia. There are several city parks along tree-lined brooks, with hiking trails, within walking distance of Becky's home. Sheldon Creek and Creek Path Brook flowing through Shell Park to Lake Ontario in Oakville had the best birding most days. Many species hard to find in Nova Scotia were easy to spot, some being surprisingly common.

Cardinals and Red-winged Blackbirds were nesting in many of the young trees and shrubs along city streets. Warbling Vireos and Baltimore Orioles sang from the taller trees. Another song I puzzled about turned out to be just another Indigo Bunting; they were everywhere. Along the lakeshore, Caspian Terns outnumbered Common Terns. There was a nesting pair of Red-necked Grebes and many Trumpeter Swans with numbered yellow wing tags to track their movements.

Over the years I have travelled many miles around Nova Scotia looking for species that proved easy to find while on a leisurely stroll during our visit. Examples were Green Heron, Black-crowned Night Heron, Turkey Vulture, Willow Flycatcher, Great Crested Flycatcher, Rough-winged Swallow, Carolina and House Wrens, Blue-gray Gnatcatcher, Wood Thrush, Brown Thrasher, Philadelphia Vireo, Scarlet Tanager, Lincoln's and White-crowned Sparrows. Warbler numbers were impressive. My warbler list of 23 species included nesting Pine Warblers and a Blue-winged Warbler with its strange two part song.

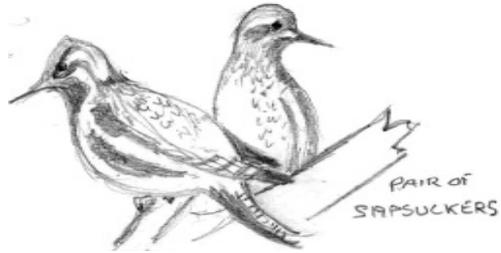
There is a stand of mature White Pines with carpets of White Trilliums along Pine Tree Trail. Here I watched a Cooper's Hawk take a pine sprig to its nest about 70 feet up in a pine tree. The next day I saw an adult take food to its mate at the nest.

For me the highlight had to be seeing Screech Owls at three locations in the city. One evening we joined the Hamilton Field Naturalists on a birding field trip. I had met several of their members earlier while wearing my

jacket with our Blomidon Naturalist crest on the front. Puzzled looks were followed by the question, “Where’s Bloomidon?” Only one person had the correct pronunciation. On the field trip I told the leader about finding a Screech Owl nearby. At dusk we went to the location and located an adult with four newly fledged young. Apparently city life is not a problem for these delightful little owls.

A highlight for our two young granddaughters was a close look at a large ribbon snake while out hiking with Grammie and Grampie. They still remembered the red-backed Salamander we had found last July in the Kentville Ravine when they visited us.

My bird list totalled 114 species.



Seen in the Wild
2007 Nova Scotia Migration Count
by Hans Toom, provincial coordinator

May 12, 2007 – The annual Nova Scotia Migration Count was held, as always, on the second Saturday of May. The weather was mixed, with early morning cloud and showers in many areas followed by gradual clearing, bright sun, and higher winds later in the day. A total of 631 Nova Scotia birders walked the trails, watched feeders, cruised the waters, listened in the early hours, and rode bikes, motorcycles, and ATVs. One rode a horse. Total tally: 208 species and over 93,000 individual birds.

The species count was average, but the individual bird count was 18% below the previous eight-year average, although up 15% from last year. Continental weather patterns weeks and even months ahead of our count

day play a significant role in determining the numbers and mix of species we observe. Great Cormorant was up 73%, Black Scoter up 140%, and Ruby-throated Hummingbird up 82%. Pine Siskin is down 93%, Red-breasted Nuthatch down 52%. These last two have likely relocated due to a change in local food supply. The winter finch numbers are down, White-winged Crossbills reduced to six birds in the whole province. The good news is that the Evening Grosbeak population may even be recovering somewhat. Sadly, the House Sparrow continues to decline.

Highlights of this year's count were 65 Northern Fulmars, Brier Island; two Snowy Egrets, Queens and Shelburne; five Little Blue Herons, in Colchester, Inverness (2), Richmond, and Shelburne; Green Heron, Lunenburg; two Barrows Goldeneye and 13 Snow Geese, CBRM; one Red-shouldered Hawk, Inverness; four American Oystercatchers, Shelburne; two Laughing Gulls, CBRM; nine Roseate Terns, Shelburne; a Little Gull, Pictou; two Common Nighthawks, Guysborough; two Red-bellied Woodpeckers, HRM; two Northern Rough-winged Swallows, CBRM. Eastern Bluebird, Cumberland; eight Wood Thrush, six in CBRM, two in Inverness; Warbling Vireo, Kings; Scarlet Tanager, Kings; Summer Tanager, Lunenburg; two Orchard Orioles, Cumberland and Digby.

For the annual year-over-year summary, see <<http://hanstoom.com/NSMC2007Annual.htm>>, and for the county summary, see <<http://hanstoom.com/NSMC2007County.htm>>.

I've looked at all our birds for the last nine years, and although some populations are down this year, they have also been down in previous years and bounced back. There seems to be no pattern for most species. I've plotted five graphs, available for viewing on the website, including four species currently of concern or undergoing a major population shift <<http://hanstoom.com/NAMC/Analysis.html>>:

- 1) Migration intensity on Count Day shows a slight decrease in numbers but probably no cause for alarm, especially since this year shows a recovery.
- 2) Red-breasted Nuthatch shows the lowest population in the last nine years, confirming the field observations of most of us.
- 3) Evening Grosbeak: The precipitous decline in population seems to have reversed itself this year, so next year will tell the story.
- 4) House Sparrow: This is all bad news, since the population continues

to fall – as it has done all over the continent.

5) Pine Siskin: Our population peaked in 2005 (remember all our busy feeders and niger bills). Well, this year showed the lowest population of the last nine years.

I congratulate and thank all of this year's participants. Keep up the good work, and we'll do this all again on May 10, 2008.



Youth and Nature
Putting Children Back Where They Belong:
Recreating Intimacy with Nature
adapted from a report by Laurel McIvor

August 4, 2007 – During the Nature Canada conference in Wolfville, fifteen people – professional educators and nature enthusiasts – gathered to share ideas and discuss the needs of nature education for children and youth in Nova Scotia. During group discussion of participants' own youthful experiences, some common themes emerged: adult mentors, hands-on discovery, access to and freedom to explore natural areas.

Several of the group have had experience developing or participating in youth education programs. BNS has been providing nature education leadership and funding to municipal/township day camps. The NS Fisheries and Aquaculture "Learn to Fish" program has proven to be a popular way of teaching about aquatic ecosystems through fishing. The

Brier Island Stewardship Council targets youth and children directly through education programs. Kejimikujik National Park teamed up with Mermaid Theatre for a puppet show on species at risk. The Nova Scotia Museum of Natural History has an extensive selection of education kits that are loaned free of charge.

A number of participants agreed that Richard Louv's *Last Child in the Woods*, a book that reinforces intuitive recognition of the need for basic nature education, has been integral in popularizing this situation as a societal and community issue and has helped energize and focus them in their efforts to reconnect kids with nature.

The group was energized by the meeting and reached consensus that nature education for children is key to protecting special places, sensitive habitats, and species at risk. Consequently, they made a list of current needs and developed a plan for action. The main elements of this plan include developing a purpose and goals for the group; developing a forum for continued communication, skills exchange, and idea generation; extending invitations to broaden the group; incorporating First Nations teachings and values; and developing a collaborative project, program, or product.

The participants were Janet Barlow (Sense of Wonder Environmental Education), Charlane Bishop (naturalist coordinator, Green Dragon Nature Camps, BNS), Larry Bogan (president, Nature Nova Scotia), Brennan Caverhill (outreach coordinator, Kejimikujik National Park), Andrea Flowers (Nova Scotia Education for Sustainable Development Working Group), Pat Hudson (Cape Sable Important Bird Area, Nature Camps), Savayda Jarone (medicinal herbalist, herb program with children and summer camps), Donna Jean-Louis Livingston (visual artist, art education, Acadia), Tara Marshall (biologist, NS Fisheries and Aquaculture), Laurel McIvor (curator of interpretation, Nova Scotia Museum of Natural History), Karen McKendry (coordinator, Halifax Young Naturalists Club), Nicole Oliver (environmental educator, Harriet Irving Botanical Gardens), Sarah Sabeau (biologist, teacher), Jon Stone (works with new Canadians, Hinterland Who's Who, Hope for Wildlife Society), June Swift (Brier Island Stewardship Council, Gulf of Maine Institute), Mike Vatour (independent consultant, education curriculum development)

Eastern Annapolis Valley Weather Spring 2007

by Larry Bogan, Cambridge Station, NS

	Mean daily max. temp (deg.C)	Mean daily min. temp. (deg.C)	Mean daily temp. (deg.C)	Total precip. (mm)	Bright sunshine (h)
June (46 yr. average)	21.7 (21.6)	10.5 (10.3)	16.1 (16.1)	75 (70)	188 (210)
July (46 yr. average)	25.7 (25.0)	15.3 (13.6)	20.5 (19.4)	64 (70)	220 (231)
August (46 yr. average)	24.6 (24.3)	12.9 (13.3)	18.8 (18.8)	128 (88)	257 (218)
Season (46 yr. average)	24.0 (23.6)	12.9 (12.4)	18.5 (18.1)	267 (228)	665 (659)

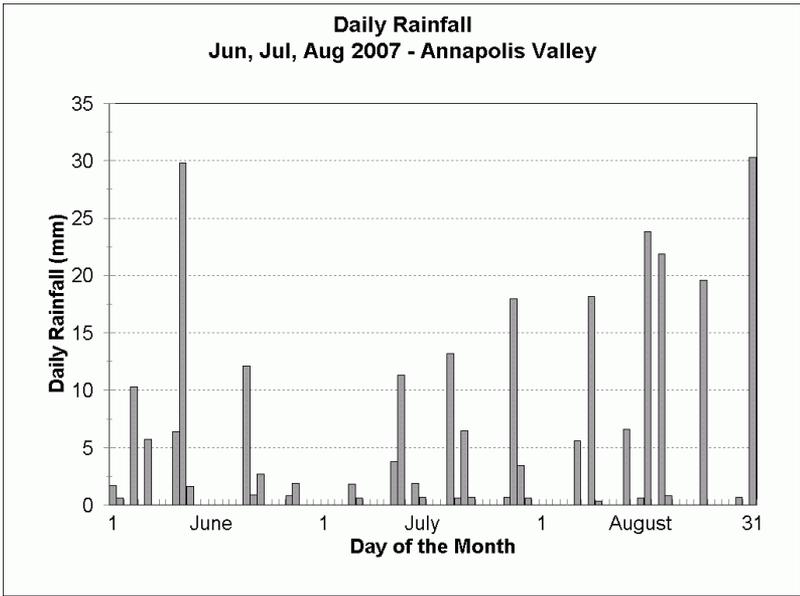
Source: Food & Horticultural Research Centre, Kentville, NS, and Kejimikujik National Park (August precipitation and temperatures)

What a nice summer we have had! There was plenty of rainfall, and the temperatures were about what we expect for the Valley. It was slightly cloudier in early summer than a typical Valley summer, but not by much.

I have included the graphs for the temperature and rainfall records from Kentville. The August data are not complete, due to problems with weather instruments at the Research Centre as a result of a thunderstorm early in the month. In order to present a complete picture, I have substituted the rainfall data from Kejimikujik for the missing Kentville data.

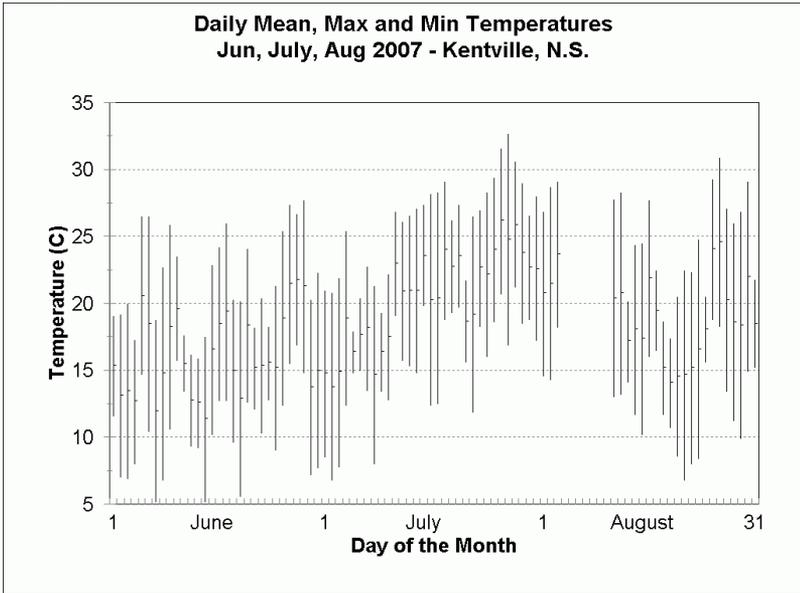
Precipitation

As you can see from the rainfall graph, we had a good distribution of precipitation to keep the lawns green, the gardens growing, the forests lush, and the streams flowing. There were no completely dry periods during the summer except late June and early July, when we only had a few millimetres of rain over a two-week period. Our overall rainfall for



the season was actually above average by 17%, but mainly due to the excess in August.

Temperature



Temperatures were quite comfortable most of the summer except for the end of July, when we had a few days with high temperatures above 30 °C. I am writing this in mid-September, and we have had no frost yet, but we came very close in Cambridge, Kings County, this month. We saw the minimums 0.1, 0.3, and -0.5 °C. By the time you read this, the autumnal equinox will be passed and it will be fall. Enjoy what I think is one of the best seasons of the year in our location.

Heard in the Wild

Shorebirds among the Stars

by Sherman Williams

August 15, 2007 – Last evening approximately between 9:30 and 11:00 the piping sounds of small flocks of shorebirds were heard in the night sky as they passed overhead from northwest to southeast here at Horton Bluff. Each piping group was two or three minutes apart, each pass fading out in the southeast as a new group was heard coming in from the westward. In the 15 or 20 minutes that I did pay close attention, at least six groups went over. I had other things to do, but I was aware of their piping sounds drifting through my study window while I worked at my desk. Shortly after 11:30, just before getting off to bed, I went out on my deck hoping to hear more activity, but all was quiet.

This is an event I witness every year around this time. Conditions in common each year are: close to Perseid meteor time, clear or clearing night sky just after a weather system (a LOW) has moved through, small flocks flying high with continuous piping sound, each group is spaced a few minutes apart, movement is always northwest to southeast, and usually extends over a period of one to three hours. The period last evening seemed shorter than other years.



What's in the Sky?

by Roy Bishop

Autumn evenings: Jupiter is the bright star-like object low in the southwest evening sky. Earth's rapid orbital motion around the Sun is leaving Jupiter behind, causing Jupiter to vanish into the evening twilight during November. The giant planet passes behind the Sun December 23.

Autumn mornings: After passing between Earth and the Sun in August, Venus is in the morning (pre-dawn) sky for the rest of 2007. Venus is unmistakable — a very bright, star-like object. Only the Moon and Sun outshine Venus.

Photo op: The full Moon often rises when the sky is illuminated by evening twilight, resulting in one of the most sublime sights in the sky, and providing an inspiring backdrop for photographs. For the convenience of photographers and anyone who simply wants to watch the rotating Earth bring the Moon into view, the time of moonrise on days when the Moon is near its full phase is given in your BNS Calendar.

September 26: Full Moon. The cool, pleasant evenings in late September will be decorated with the Harvest Moon. At our latitude, full Moons which occur in late summer and early autumn rise only a little later on several successive evenings, with the result that the light of the full Moon is available on several successive evenings to aid farmers in their harvest in September (hence "Harvest Moon"), and to aid hunters who hunt illegally after sundown in October (hence "Hunter's Moon").

The Moon is at its close point in its orbit on September 27, a day after full Moon, resulting in extra high perigean-spring tides during the last few days of September. In Minas Basin the tide range reaches 15.4 metres on September 28 and 29. Let us hope that a hurricane does not pass through our region at that time!

October 11: New Moon

October 25: Full Moon, the Hunter's Moon, and the largest of 2007 because the Moon will be at its closest perige of the year, only seven

hours after it is full. Full Moon occurs about 02:00 on the 26th, so the moonrise of October 25 is the moonrise closest to full Moon. As in late September, perigeon-spring tides will occur during the last weekend of the month. The tide range in Minas Basin reaches 15.5 m on October 27.

November: Mercury is nicely placed in the morning sky during most of this month. By November 6 at about 05:40, Mercury emerges low in the morning twilight and is visible in the pre-dawn sky for the rest of the month. By mid-month look for it about 06:00, very low in the east-southeast. Higher up to the left will be the bright star Arcturus, and up to the right will be brilliant Venus. Extend a line from Mercury to Venus about the same distance again and you will arrive at Saturn. Extending the line considerably further will bring you to orange Mars, high in the western part of the sky. Then look down at the ground and add a fifth planet to the list – Earth!

November 9: New Moon

November 24: Full Moon. Because of a very close perigee less than a day earlier, the Moon will be almost as large as it was on October 25, and tides in Minas Basin will be extra high, reaching a range of 15.0 m on November 25.

December 9: New Moon

December 14: The Geminid Meteor Shower peaks midday on December 14 this year, so the best time to see the meteors is in the morning sky before dawn, or later that day in the evening sky. The Moon will be a waxing crescent in the evening sky but will set near 21:30.

The Geminid shower is named for the constellation Gemini that occupies the part of the sky from which the meteors appear to radiate. Gemini will be low in the east on the evening of December 14.

Geminid meteors travel at 35 kilometres per second, which gives them a kinetic energy equal to nearly 150 times the explosive energy of the same mass of TNT. Thus despite their small size (comparable to a blueberry or smaller), these lumps of cometary debris produce a bright trail as they burn up high in Earth's atmosphere, about 120 to 80 km above the ground.

December 22 (02:08): Solstice. The Sun reaches its lowest point in the noontime sky and winter begins. Hours of daylight are at a minimum, and hours of darkness at a maximum.

December 23: Full Moon. During the few days before Christmas, the full Moon will illuminate the night, being almost overhead near midnight. If snow covers the ground, reflected moonlight will make the nights particularly bright.

December 24: A Martian Christmas! Mars is closest to Earth on December 18 and at opposition on Christmas Eve when Earth passes between Mars and the Sun. With Earth near perihelion and Mars approaching aphelion, the 2007 Martian opposition is not a close one. Mars will be 60% of the Earth-Sun distance from us, and only 16 arc-seconds in diameter. It will be high in the midnight sky, a bright orange ornament for the season. During December watch Mars drift westward against the background stars as we pass it in our faster orbit.

January 8: New Moon

Seen in the Wild

Monarchs

by Larry & Alison Bogan, Cambridge, NS

Sunday June 10 – We had our first confirmed visit from a female monarch butterfly. She was a bit faded and one wing was torn, which allowed us to pick her up from the blade of grass to which she was clinging and put her on a lilac flower. I am pretty sure I saw a monarch on the 9th, but it was flying quickly and was gone by the time I grabbed my binoculars. The milkweed by the garage is about 25 cm high.

September 15 – We are seeing more monarchs in our field and on the flowers in the garden (7 on Thursday), but are not seeing the great numbers of chrysalises attached to the house and garage that we had last year. So far we have noticed five on the garage, one on the house, and at least three on milkweed plants. We counted over 60 caterpillars last weekend and speculate most of the caterpillars are pupating in the field, so we will not be able to track them as easily as when they were closer to the house.

Blomidon Naturalists Society

2008 Membership Fees and Order Form

Members of the Blomidon Naturalists Society receive four issues of the BNS newsletter annually. As a registered charity, BNS issues receipts for all donations. Members may also join Nature Nova Scotia through BNS and will receive *FNSN News*, the federation newsletter. (Neither BNS nor NNS membership is tax deductible.)

Please send cheques or money orders made out to **Blomidon Naturalists Society** in payment of membership fees and other purchases to

Ed Sulis

107 Canaan Avenue, Kentville, NS B4N 2A7

No.	Membership classification	Price	Total
_____	Individual adult	\$20.00	\$ _____
_____	Family (number of family members _____)	20.00	\$ _____
_____	Junior (under 16 years)	1.00	\$ _____
_____	Nature Nova Scotia membership	5.00	\$ _____

Items for Purchase

_____	2008 BNS calendar	15.00	\$ _____
_____	<i>Natural History of Kings County</i>	14.00	\$ _____
_____	<i>Nature Walks: Within the View of Blomidon</i>	20.00	\$ _____
_____	Annotated checklist of Kings County birds	5.00	\$ _____
_____	Blomidon Naturalist crest	5.00	\$ _____
_____	Blomidon Naturalist hat	15.00	\$ _____
_____	Screensaver: 10 years of BNS calendar photos	10.00	\$ _____

Postage and handling

(orders \$15 or less = \$3, \$16 to \$50 = \$6, over \$50 free)

Tax-deductible donation

Total \$ _____

Name: _____

Address: _____

Postal Code: _____

Telephone: _____ E-mail: _____

Name of donor for gift subscription: _____

Membership fees are due January 1 of the current year

Sources of Local Natural History

(compiled by Blomidon Naturalists Society)

Information	Source	Office	Home
Amphibians & Reptiles	Sherman Bleakney		542-3604
	Jim Wolford	585-1684	542-9204
Astronomy	Roy Bishop		542-3992
	Sherman Williams	542-3598	542-5104
	Larry Bogan		678-0446
Birds – General	Bernard Forsythe		542-2427
	Richard Stern	678-4742	678-1975
	Gordon & Judy Tufts		542-7800
	Jim Wolford	585-1684	542-9204
	Jean Timpa		542-5678
Butterflies & Moths	Jean Timpa		542-5678
Fish	NS Dept of Natural Resources	679-6091	
Flora – General Fungi	Ruth Newell	585-1355	542-2095
	Nancy Nickerson	679-5333	542-9332
Hawks & Owls	Bernard Forsythe		542-2427
Indian Prehistory & Archeology	James Legge		542-3530
Mosses & Ferns			
Mammals	Tom Herman	585-1469	678-0383
Rocks & Fossils	Geology Dept Acadia U.	542-2201	
Seashore & Marine Life	Sherman Bleakney		542-3604
	Jim Wolford	585-1684	542-9204
	Michael Brylinsky	585-1509	582-7954

