

Blomidon Naturalists Society

Winter 2007 – Volume 34 Number 4

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)

BNS Executive

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Vice-president	Richard Stern	678-1975
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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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<www.blomidonnaturalists.ca>

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Illustrations by Mary Pratt (cover, pp. 9, 10, 14, 16, 17, 23, 25, 26, 34, 35)
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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 Avenue, Wolfville, NS B4P 2C5) or by e-mail <jtimpa@ns.sympatico.ca>.

Upcoming newsletter deadline

Spring, April 1, 2008

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Editorial

Out and About

It has been quite the banner year for BNS members, and in no special order here are some of the events or doings that I think stood out:

- Winning the Whites Point Quarry battle in Digby County. Thank you Mark Parent for making a very difficult decision on this – taking the advice of the panel members, who gave very good reasons for making their recommendations, was definitely the right and only way to go
- Hosting of the Nature Canada conference at Acadia in August – such a lot of work but such an honour to have been asked to entertain and educate here in our beautiful Annapolis Valley
- More informative lectures and field trips for which there seems to be an abundance of enthusiasm
- A splendid 2008 BNS calendar, which has the best photos ever. How does that committee come up with something better each year, just when I think it cannot be surpassed?
- The wonderful series of walks in the Harriet Irving Botanical Gardens on a regular weekly schedule
- The children's natural history art program in the elementary schools
- The ever-fascinating Chimney Swift chimneys, despite the severe reduction of their inhabitants several falls ago due to hurricanes
- Another year of very happy children who participated in the Green Dragon nature camps, thanks to many last-minute generous donations to shore up the program following severe government funding cuts
- The appearance of Comet Holmes, which is bigger than our sun. I didn't expect to see that day!
- And four new honorary life members since last December: Mary Pratt, Judy Tufts, Jim Wolford, and Bernard Forsythe

WOW! What a productive year to wrap up with a big shiny bow. What can we do in 2008? Start thinking now and contact any of the executive with your suggestions. We need all the people we can find to come up with new projects and ways in which we can educate and help make our struggling planet a better and safer place in which to live. Here is my suggestion: Our membership has shrunk over the past couple of years, so I found a family of three and sold them a new calendar and gave them a

fall newsletter. They have taken out a membership, and I hope the young fellow will go to one of the Green Dragon camps next summer. Can you find some more warm bodies for us?

—Jean Timpa, ed.

Acknowledgements

Christmas stars to all the elves who have made the functioning of all matters of the BNS run so smoothly once again this past quarter. All your practical help, ideas, attention to detail and musings, be they great or small, turn it in to a very grand organization. May the gifts you receive over the various holidays be a special as the ones you have given to others this past year.

Letters

It is always useful, and not always given, to have feedback from our membership about the BNS newsletter, calendar, programs, or any other aspect of the club. We'd like to have more of it on a regular basis: good, bad, or indifferent.

Treasurer Ed Sulis received a note following the last newsletter:

Want you to know that BNS vol 34, no 3 [Fall 2007] is above and beyond. Each and every contribution so interesting and informative. In my mind I went on every trip – wonderful. In [our] household we could not live without the BNS calendar, find ourselves checking each and every day. Continued success.

Blomidon Naturalists Society

Winter 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, 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.

Monday, March 17, 2008 – Protecting Private Land in Nova Scotia: The Nova Scotia Nature Trust and the Wolfville Watershed Nature Preserve, by Lauren Allen and Bernard Forsythe. Over 70% of the land in Nova Scotia is privately owned and supports many important natural features, such as old-growth forests, coastlines, and habitats for endangered species. Lauren, the conservation projects coordinator at the Nova Scotia Nature Trust, will speak about the need for conservation of private lands, and about what the Trust is doing to protect Nova Scotia's natural legacy, including several important properties in Kings County. One of its most exciting initiatives is the partnership with the Town of Wolfville to protect the Wolfville Watershed Nature Preserve, an ecological gem in the heart of the Annapolis Valley. Bernard will speak about the important natural features of the property, from old-growth forest to habitat for a variety of orchids.

Lauren Allen has a background in biology and environmental studies from Dalhousie University, and spent two summers studying wood turtles on the St. Marys River. She first joined the Nature Trust in 2005 as a project assistant for the Coastal Plain Flora program. After some time travelling and living abroad, she is now working on the Nature Trust's St. Marys River campaign and the Wolfville Watershed project.

Bernard Forsythe is an ardent naturalist and an honorary life member of BNS.

Monday, April 21, 2008 – Nature and Astronomy in Ireland, by Patrick Kelly. The natural history of Ireland is much more varied than one would expect for such a small location. There is lot to see on the Emerald Isle, both natural and man-made. In addition to natural history on the ground, two locations have significant astronomical associations. Come and see some aspects of natural history that most would not associate with Ireland.

Patrick Kelly has a background in astronomy and computer science. He is the director of faculty computing in the Faculty of Architecture and Planning at Dalhousie University and is the editor of the *Observer's Handbook* of the Royal Astronomical Society of Canada.

Monday, May 19, 2008 – TBA.

Monday, June 16, 2008 – Discover the Bay of Fundy's Rare Mussel Reefs. Join marine geologist Gordon Fader, the discoverer of the globally unique and little-known Bay of Fundy mussel reefs, as he recounts their discovery and relates what we know about them so far. Then hear from Laura Hussey about the need to protect the reefs and the efforts by of the Nova Scotia chapter of the Canadian Parks and Wilderness Society (CPAWS-NS) to ensure that these amazing features are studied and maintained. The reefs, or bioherms, are formed by Horse Mussels (*Modiolus modiolus*) when the shells of dead mussels mix with sand and mud to form mounds on top of which live mussels grow. Multibeam bathymetric images of the Bay of Fundy seafloor show multiple rows of these mussel reefs, each about 20 m wide, up to 3 m high, and up to 1.2 km long, making them the largest mussel reefs yet to be documented in the world. Like coral reefs, bivalve reefs such as these function to create a productive and biodiverse marine environment. However, they are at

risk of damage from human activities such as bottom trawling.

Laura Hussey is the marine coordinator for CPAWS-NS, where she works on a variety of issues, including the development of a network of marine protected areas, the protection of special marine elements such as the Bay of Fundy mussel reefs, and the sustainable use of ocean and coastal resources. She is a graduate of the masters program in resource and environmental management from Dalhousie's School for Resource and Environmental Studies. Laura has been living in the Halifax area for eight years now, but is originally from Newfoundland, where her love of the ocean and interest in marine management and protection were born. She loves spending time in and near the ocean, though some of her drier interests include hiking and farming.

Gordon Fader is a professional marine geologist, now retired from the Geological Survey of Canada. He had been responsible for seabed mapping and research on the surficial sediments and shallow bedrock geology of the southeast Canadian Continental Shelf, and has published over 300 maps, reports, and scientific papers in government publications and the scientific literature. He is a specialist in the acquisition and interpretation of high-resolution seismic reflection and sidescan sonar data, and the study of seabed processes and sediment characteristics. During his research he discovered many shipwrecks on the seabed off Atlantic Canada and has been featured in associated documentaries. He is completing a major publication on the geology of Halifax Harbour and a study on the effects of fishing activity and essential fish habitat with Fisheries and Oceans Canada, and writing a book on Halifax Harbour.

Field Trips

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

Saturday and Sunday, January 26 and 27, 2008 – Eagle Watch Weekend 1. The Sheffield Mills Community Hall will host its annual pancake and sausage breakfast with naturalist displays, films, and crafts. Short drives around the area in the morning will usually offer a sight of

more than 100 Bald Eagles and many hawks. Maps and directions can be obtained at the hall or any time at the information post on Middle Dyke Road. For more information, see <www.eagles.ca> or contact Richard Hennigar at 902 582-3044 or <hennigar@xcountry.tv>.

Saturday and Sunday, February 2 and 3, 2008 – Eagle Watch Weekend 2. A repeat at the Sheffield Mills Community Hall.

Saturday February 2, 2008 – Winter on Snowshoes. Snow transforms the landscape into stories that unfold as we follow tracks of foxes, mice, and other mammals. A Snowshoe Hare hops along and is pounced on by a Great Horned Owl. Without snow to show us the tracks, wing marks, and perhaps a drop of blood, we would not have known the drama took place. Soren Bondrup-Neilsen (902 582-3971) will lead this hike on snowshoes or skis, and we will explore the properties of snow (its insulative value, for example). By studying the characteristic imprints made by different organisms, we will interpret the various stories that have unfolded. Meet at the Wolfvill waterfront at 10 a.m. for a two- or three-hour, non-strenuous hike at a nearby location to be determined by weather and snow conditions.



Saturday and Sunday, February 9 and 10, 2008 – Eagle Watch Weekend 3. A repeat at the Sheffield Mills Community Hall, except the breakfast will be drinks and muffins.

Saturday, March 15, 2008 – Orchid Show. The Valley Orchid Group will have a display of orchids in the conservatory of the K.C. Irving Environmental Science Centre at Acadia University from 10 a.m. to 4 p.m. There will be a presentation in the downstairs auditorium about orchid growing, and people in the lobby selling orchids along with specialized materials and instructions on how to help them grow well. This is a sure cure for the winter blahs, with only the very best of the best orchids brought in for the occasion. You will see plants that you will not believe are real – they are so beautiful, perfect, and complex in their structures. Photographers are welcome and encouraged.

Saturday March 22, 2008 – Along the Fundy Shore, led by Wayne Neily (902 765-2455) <neilyornis@hotmail.com>. Focusing on the winter

birds of the Bay of Fundy and the ecozones from the Bay to the Annapolis Valley, this will be a joint trip with the Nova Scotia Bird Society, the Blomidon Naturalists, and the Annapolis Field Naturalists. Meet at 9 a.m. in Aylesford, just on the south side of Exit 16 on Highway 101. We will visit the shore at Morden, Margaretsville, Port George (arriving at Cottage Cove by 11 a.m. for those wishing to join at that point), and perhaps Port Lorne and Hampton, before heading back into the Valley to check some sites on the way to Annapolis Royal. Dress warmly with layers – the Fundy shore can be cold and windy at that time of year – and bring a lunch. In the event of a storm, contact Wayne for an alternative date.



Saturday April 5, 2008 – The Russian Space Program, an indoor, but very wide-ranging field trip led by Acadia physics professor Dr. Svetlana Barkanova <svetlana.barkanova@acadiau.ca>. The year 2007 marked the 50th anniversary of the launch of Sputnik, the world’s first artificial satellite, by the Soviet Union. In the entire history of space exploration, only three countries have launched their own manned space missions: the USSR (1961), the United States (1962), and China (2003). For Russia, the space program actually started in 1905, with Tsiolkovsky’s publication of *The Exploration of Cosmic Space by Means of Reaction Devices*. Svetlana will tell us about the century of the Russian space program from 1905 to 2005, with such defining moments as the launch of Sputnik, the first earthling in space, the first human in space, the first group flight, the first planet landing, and the first space station. Meet at 10 a.m. in Room 10 of the Huggins Science Hall at Acadia University.

Sunday April 27, 2008 – Early Spring Birds, led by Jim Wolford (902 542-9204) <jimwolford@eastlink.ca>. This will be a joint trip with the Nova Scotia Bird Society, pond hopping for ducks and early migrants. Meet at the Wolfville waterfront at 10 a.m. Dress warmly and bring a lunch. No rain date.

Executive Notes
A New Year
by **John Harwood, president BNS**

You will have noted from page two that your new executive is in place. I would like to recognize the departure of Harold Forsyth from the board. Apart from his unbelievable 15-year term as the Society's treasurer, he has contributed to the guidance of BNS in many, many ways. I would like to thank him on behalf us all. Harold will continue to work with our Green Dragon young naturalists program and will continue to send out reminders of meetings, field trips, and other events of interest. (If you aren't on the e-mail list, give Harold a call and he'll add your name.)

I would also like to recognize the return to the board of Barry Yoell. His counsel will be most valuable. Darrell Slauenwhite is a comparatively new member who has already distinguished himself by manning the BNS table at Nature Canada 2007. Darrell is anxious to contribute in other ways, and I am sure we'll find lots for him to do.

At our first meeting we heard from Ed Sulis, our treasurer, that membership numbers are stable and our financial health is good despite having to spend extra on the 2007 youth program. We also heard from our program coordinator, Patrick Kelly, that there is a good lineup of subjects for our monthly meetings, an interesting field trip schedule through the winter, and lots of good ideas for the spring.

The board reaffirmed our intent to keep the society focused on youth while presenting challenging and interesting monthly presentations and field trips for the members. We hope to continue our Art and Nature competitions in the elementary schools.

I have just heard from our member Janet Ness that the VON has received some funding from the Nova Scotia Senior Citizens' Secretariat for a program for isolated seniors and other shut-ins called Project Feeder Watch. Volunteers will provide information sheets and set up bird feeders in positions where they can be observed by participants. The volunteers will visit the participants weekly to discuss the sightings and check and

refill feeders. It sounds like a great project – if you can't bring the shut-ins to nature why not bring nature to the shut-ins? If you could spare a bit of time to volunteer or know of a senior or shut-in who would benefit from the project, call Janet at the VON (902 690-2118).

We, the executive, wish all of you and your families a great New Year.

Member News

Mary Pratt

In the Fall issue, we highlighted three new honorary life members of BNS: Bernard Forsythe, Judy Tufts, and Jim Wolford. Here, we're pleased to honour another life member, Mary Pratt. Mary is the generous and talented illustrator for the BNS newsletter, a post she has informally held for many issues. The following profile is written by Mary's daughter, Tisha Pratt (photos by Sarah).

Mary (Warlow) Pratt was born in England – within the sound of Bow Bells, which makes her officially a Cockney – on February 17, 1926. It became obvious at an early age that Mary had a deep love for all animals, especially horses and dogs. Her artistic abilities were also evident at a young age, and she has maintained these interests all her life.

Mary grew up in Devon and Shropshire, and her most memorable moment of her school years was when she narrowly missed being run over by Queen Mary, who had come to visit the school.

When the war came she was sent to Montreal with her mother and sister, as her mother was Canadian, until she was “old enough to do something useful” in England during the war. At age 14 she stayed behind in Montreal on her own – except for her dog, of course – to continue in school.

As soon as she was old enough to drive she returned to England and joined the FANYs to become an ambulance driver. The driving examiner naturally assumed that Mary knew how to drive; Mary believed that anything was possible if you put your mind to it, which led to some tense moments heading down a steep hill into a village as Mary mistook the



clutch for the brake. However, the examiner must have appreciated Mary's quick reflexes as she avoided crashing into the village monument and her determination to help the war effort, and with a few pointers she became a skilled ambulance driver.

After the war Mary and her sister moved back to Victoria, BC, to join their parents. She later met a young naval officer, Chris Pratt, and they were married in November 1948. A navy family is always packing up to move, but that did not stop Mary from accumulating animals along with having

children. The move from Norfolk, Virginia, to Brooklyn, Nova Scotia, included two ponies, a dog, and several bantam hens, along with four children. Several kind farmers allowed us to camp in their fields and helped to round up stray hens in the mornings. The only white-knuckle moments occurred when the convoy – Chris in the lead with truck, horse trailer, chickens, and two children, closely followed by Mary, camping trailer, dog, and two more children – got shunted off the main highway and ended up driving through downtown New York. Mary again displayed grim determination behind the wheel, as Chris had a nasty habit of going through the traffic lights on amber. However, the hens kept laying all the way up here.

Mary developed other skills during her life, pounding in fenceposts and driving the tractor, as well as the usual house and barn improvements and repairs. She continues to pursue her artistic interests as well as gardening, birding, dogs, and bantams, and enjoying watching her seven grandchildren grow up. Mary also enjoys being involved in the community, helping out in the Randall House garden and illustrating the Blomidon Naturalists newsletters.



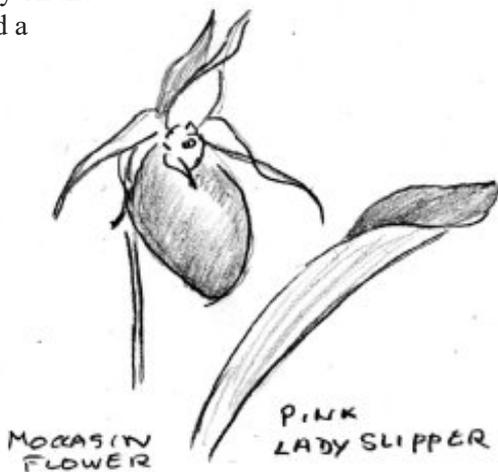
BNS Field Trip Report

Canoe trip to Cloud and Frog Lake

by Larry Bogan

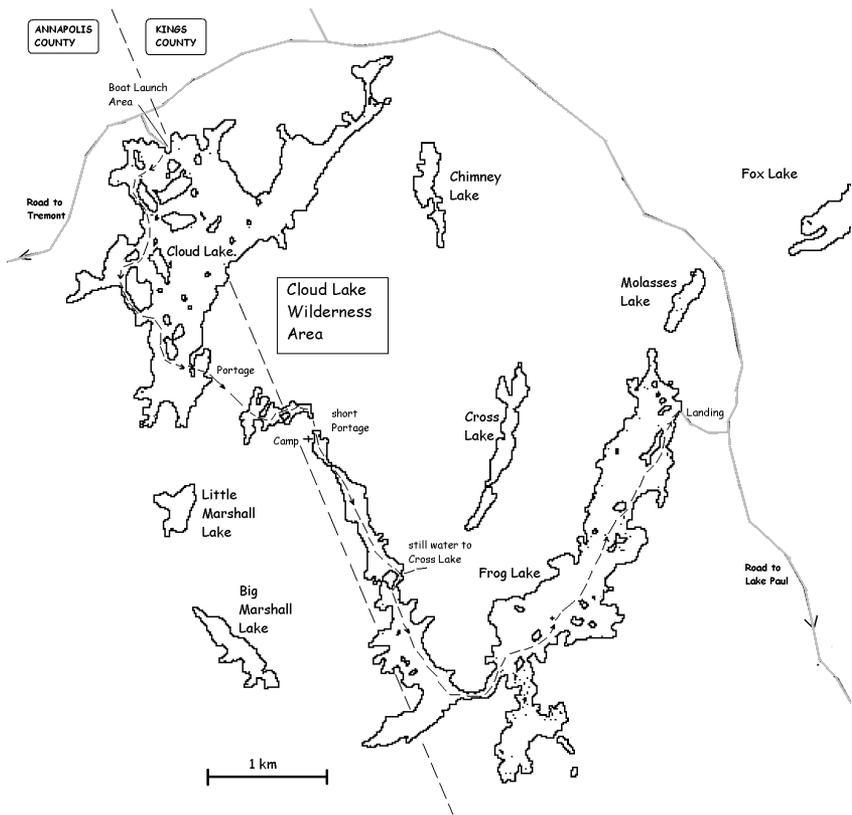
Sunday, June 24 – Eight people and four canoes gathered at 9 a.m. in South Berwick on a sunny, warm day. From there we took the East Dalhousie road south to a gravel road leading west into crown land that includes the Cloud Lake wilderness area. We parked at the Greenwood Air Cadet camping area on Cloud Lake that provides access to the lake. Since we were going to make a one way paddle to the boat access on Frog Lake, John Harwood and I drove there to leave his car for transportation back. Finally, at about 11 a.m. the four canoes headed out among the many islands of the lake to enjoy the day on the water. Before we left we observed a Pileated Woodpecker and heard a Least Flycatcher. There were Pink Lady's-slippers blooming in the woods.

The winds were light and from the west, and for most of this long trip we fortunately either had the winds to our back or to our side but never a headwind. We had high clouds to keep the sun levels down, just ideal for canoeing.



The western end of Cloud Lake is a delightful area to paddle, since it has many islands that create cosy little channels to follow. Here we heard Black-throated Green Warblers in the woods and saw a Spotted Sandpiper on the rocks near the shore.

By noon we had reached the start of a half-kilometre portage to Frog Lake on the southern shores. This was a barely visible path through the woods, starting in wet woods. The portage was the most strenuous part of the trip as we pulled and lifted our canoes over the trail to a small lake at the northwest arm of Frog Lake. From here we had a short paddle to



the next very short portage into Frog Lake itself. Before heading down Frog Lake we stopped for lunch at a nearby camp.

There are still a few camps in the wilderness area, which will be removed when the lessees give them up. They cannot be transferred. This camp was in good shape (with a history posted on the cabin) and had a lovely wooden deck for us to rest on while we had lunch and enjoyed our surroundings. While there, Pat Kelly and I spied a pair of Yellow-bellied Sapsuckers nesting nearby.

The northern end of the northwest arm of Frog Lake is narrow and pleasant, and as one travels south it opens up into the wider lake where there is a stillwater on the east side formed by the water coming from Cross Lake. We diverted here to enjoy the lush vegetation bordering the

steam, and to our delight we saw blooming pitcher plants and an active beaver hut.

Our path through the lakes is shown on the accompanying map (previous page). As you can see, after the stillwater we were in more open water and from there we headed directly to the eastern arm of the lake and up to the boat launch area at the northeast end. Along the way we encountered a couple of Common Loons diving for their meal, and we heard or saw Cedar Waxwings, Black-throated Green Warblers, a Common Nighthawk, Red-winged Blackbirds, and Black Ducks.

There are many islands to explore on Frog Lake and a nice stillwater at



the southernmost end of the lake. However, the afternoon was advancing and we did not have time to do any more exploration. Perhaps on the next trip that area can be a destination.

At the end of the long paddle up the lake we were glad to stop. I always find it a bit awkward walking on dry land after sitting in a canoe for an extended period. We got ashore about 3:30 p.m. John drove the drivers back to Cloud Lake for our cars so we could return to fetch our canoes and head home. What a wonderful trip it was. Although it was long and strenuous, I do believe everyone was glad they came to see this wilderness area. During the whole trip we encountered no other human visitors, which made it feel that much more like a true wilderness.

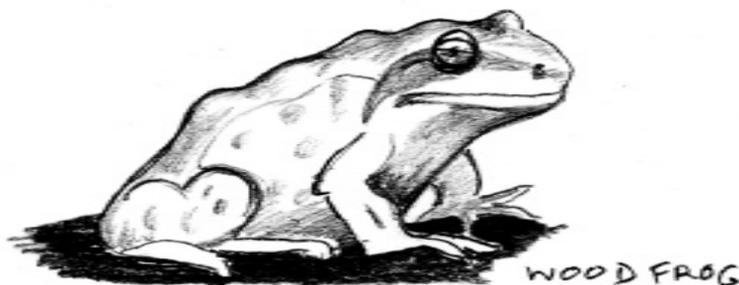
BNS Field Trip Report

Cloud Lake

by Patrick Kelly

October 6, 2007 – So far I have been lucky. Every BNS canoe trip I have been on or led has had almost perfect weather. This was no exception. There was only a small turnout, and that was counting some of my wife's relatives. There were several people who enjoyed the early part of the trip but had to leave early for afternoon appointments. The lake, which has a lot of islands and small coves, is a pleasure to canoe. There are a number of beaver lodges on the lake, although I have yet to actually see any beavers. Loons are common, and once again we saw a few as we covered the lake.

Since we (and my sister-in-law's family) had planned to stay there for supper as well as lunch, we ended up staying for the full day along with a fellow from Dartmouth who had seen the announcement on NatureNS. Given that, we were able to cover the entire lake over the course of the day. A traditional stop is the portage to Frog Lake, which is always full of interesting vegetation. We spotted several different types of mushrooms along the trail. From there it was back to "The Rock." Anyone who has been to this lake likely knows the spot. It is a small spit of granite that is part of the mainland on the southwest side of the lake. It is a great place for a lunch break.



In the afternoon we took a leisurely trip heading for the northeast end of the lake. The water was so warm that two in our party went in for a

swim, and I have photographs to prove it! This also allowed for a bit of walking in the woods for the rest of us, and I was able to discover and photograph a lovely example of Prince's Pine, a plant that I had never seen before. We finally made it the far northeast end of the lake and found a muddy/swampy area that allowed for a great view of a frog. (I have always looked for turtles on this lake, and have yet to see one.)

We then stopped to get out and walk around the area where the only other road access to the lake is located. We decided that once we got back to the cars, this would be a great place for supper. On the way back to the parking area we managed to come across the same(?) flock of eight Common Mergansers, which eventually flew off even though we stayed a reasonable distance away from them. They make for an impressive sight for those who had not seen this type of bird before.

The autumn colours were spectacular, especially as the day ended. The water was so still that one could look at the reflected trees as if they were in a mirror. We had a wonderful supper on the camp stoves. You can count on more trips to this area in 2008.

Seen in the Wild
Hummer Tale
by Judy Tufts

In the mid-eighties when we were first starting to plant wildflower seeds over an extensive garden area around our new Wolfville Ridge home, we used water sprinklers that went back and forth to keep the seeds moist, and had the delightful sight of a hummingbird that found a convenient perch – a slightly bowled maple leaf attached to a low branch in the tree projecting over the seed area – where it would sit and wait for the water to pass over. It would then shake and stretch its wings while the water sprinkled over it, quickly preen while waiting for the water to pass over again, when it would shake and stretch allowing the water to cover as much as possible, and then start the routine all over again. The water even gathered in the leaf “bowl” for a while so that the hummer could use the water as a sort of bathing pool. Makes one appreciate how wildlife make the most of opportunities wherever they find them. It was fascinating and such a memorable moment.

BNS Field Trip Report

Tidal Bore Watch

by Sherman Williams

Saturday, September 29, 2007 – With the predicted large tides for the end of September, a field trip was planned to observe aspects of extra-high Minas Basin tides focused around the tidal bore at Mantua bridge and on the Kennetcook at Scotch Village. The weather was quite pleasant for the event. About ten people met me at the Wolfville waterfront for the drive to Mantua near Windsor in Hants County. Enroute, we stopped at the Windsor tourist bureau, where there is an excellent view of the St Croix River entering the Avon River. About 11:30 a.m., the incoming tide would have entered the St Croix, flowing from the Avon, at this point. This is the same tidal rush that results in the tidal bore we would see at the Mantua bridge, about 18 km further up the river.

Arriving on the bridge about 1 p.m., we joined about 18 other observers. Some were there because of the scheduled BNS field trip, and several were there as tourists from away who had come to witness this curious effect of the Fundy tide. Using diagrams and my tide charts, I gave a brief background describing the characteristics of landscape, tide, Moon, and Sun that combine in this place to produce a good (or poor) tidal bore. Near the autumn equinox (September 23), the alignment of Sun, Earth, and Moon (Sep 26) had nicely combined with the close Earth-Moon distance (perigee, Sep 27), to produce the current large tides (Sep 28-9) in Minas Basin. Shortly after the incoming tidal pulse reaches maximum (mid tide), it arrives at this location, where the Herbert River meets the St Croix. Here, the river channel gradients are nearly flat as they meander through the tidal marshes. The sudden energetic influx of tidal water rises up, and tumbles over, along an advancing front, encountering the resistance of mud, sandbar, and shallow water, as it seeks to be level. Today, the one characteristic working against the production of a good tidal bore would be the elevated river outflow produced by runoff from the previous day's rainfall. Deep water meeting the incoming tide works against the tidal bore effect. We waited in anticipation.

At 1:10 p.m., someone scanning with binoculars called out that a white wave front could be seen advancing upstream in the distance. The

incoming tide that had begun to rise nearly four hours ago in the Minas Basin was about to reach the bridge. Eight minutes later the front of the approaching tide divided: one section continued up the channel of the St Croix, out of sight; the other part entered the mouth of the Herbert and advanced toward us at the rate of about 8 km per hour. Just before reaching the bridge, a tumbling, 40- to 50-cm-high wave formed across the full width of the front. Moments later the raised swells in mid channel rushed under the bridge, while its tumbling edges leapt against the muddy slopes, stalling the current that had been heading downstream. In a moment, the current abruptly switched and began surging in the opposite direction, the rise in river level already noticeable.

A number of us briskly walked northward along the highway and down onto the narrow shoulder of the tidal marsh on the opposite side of the road. An S-shaped meander in the channel delayed the tide long enough for us to have the full tidal bore rush by us again as we viewed it from the intimacy of the tall marsh grasses. It was pointed out that in just a little more than two hours, most of these grasses we were standing in would be submerged by high tide.

A few minutes later we were on our way to the bridge north of Scotch Village (10 km further) to catch another tidal bore advancing up the Kennetcook River. A third of the group from Mantua bridge followed us. There is about a 20-minute interval between the two tidal bores. This day the bore gave us almost 25 minutes before it reached the bridge crossing the Kennetcook. Although we had the same elevated river water conditions from the rain, the tidal bore put on a good show. The interplay and strength of currents, especially in the 5 to 10 minutes after the bore goes under the bridge is especially impressive at this site (a photo of a tidal bore taken at each of these sites can be seen at <www.glinx.com/~sherm/tidal_bore-info.htm>).

A thought that impresses me about this BNS tidal bore field trip is the idea that the language of nature is mathematical. Some folks among us, like Isaac Newton, were able to understand a bit of it and pass it on. Based on predictions made months in advance, we were able to be at the right place at the right time to see the waters rise up within minutes of when predicted.

BNS Field Trip Report

Winter Solstice Family Frolic

by Harold Forsyth

December 22, 2007 – We couldn't have picked a better evening for a winter hike. Over 70 people met at Noggin's Corner Farm and gathered at a campfire at the bottom of the field near the edge of the woods. The nearly full moon was shining, and we were well sheltered from any wind in the crisp air.

Charlane Bishop welcomed the well-bundled crowd, and Harold led the group into the mature pine/hemlock forest. Even in the deep woods the moon shone so brightly and the light reflected off the snow that no flashlights were needed to guide our way. The night creatures must have been impressed to see such a long line of hikers trudging their way quietly through the winding path among the 300-year-old trees.

We stopped part way into the woods, where Bernard Forsythe gave us an example of some owl calls. We hoped to hear the Great Horned Owl pair that have nested in the area for the last two years, but they didn't reply to Bernard's calls. He explained they may well have been away hunting and would be more responsive in a month or two when more actively courting.

The deep woods gave way to a hardwood stand that rises on a glacial esker. We made a detour to the Poor Farm cemetery and gave thought to those less fortunate in days past. The trail led on along the Cornwallis River and came out to the river's edge with a spectacular view of the shimmering dikes. The bright moon hid many of the stars in the sky, but Patrick Kelly pointed out Mars and the constellation Orion with lots of interesting facts.

The trail led back into the woods and back to the welcoming campfire, where we warmed ourselves with some tasty hot apple cider prepared by Sherman Boates. The group slowly dispersed with many warm wishes for a Merry Christmas to all.

—Mary's cover illustration is dedicated to this very special field trip.

Heard in the Wild

Night Sounds

by John Belbin

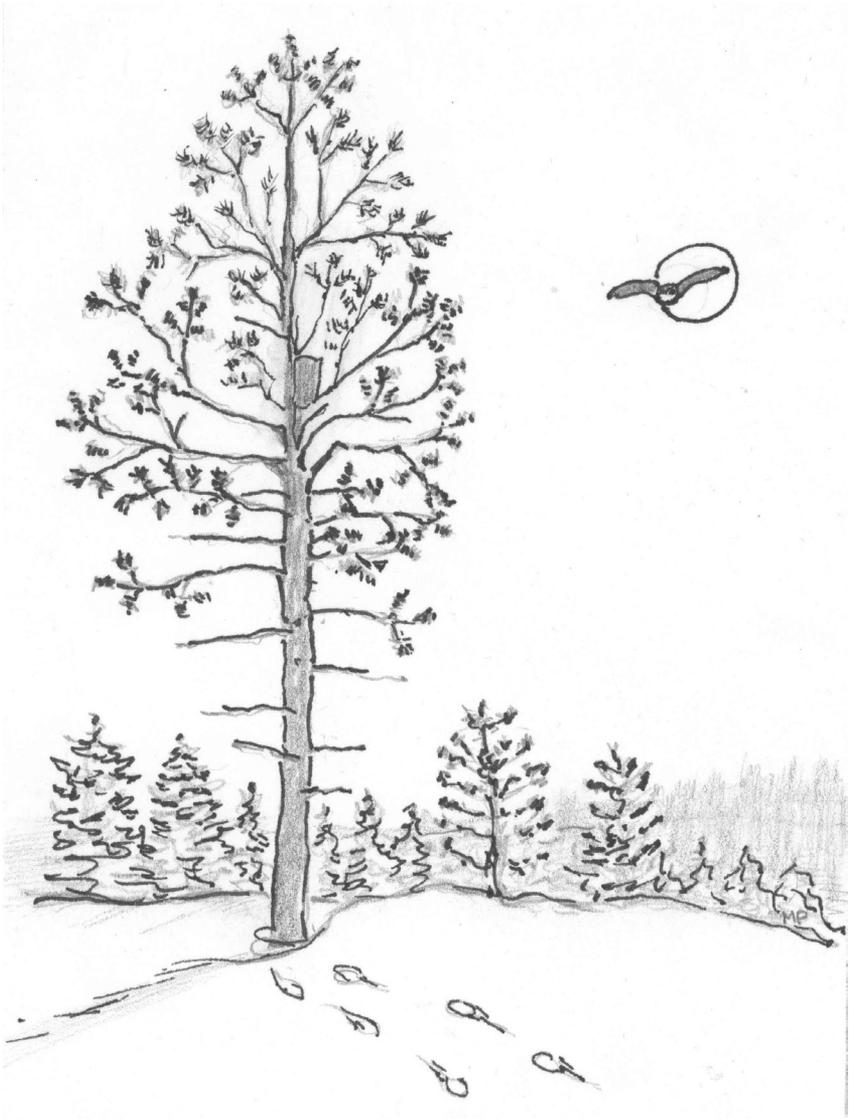
June 8, 2007 – I must be even more stunned than normal this morning – those Barred Owls just won't let me sleep. We have had Barred Owls here almost all year, but in the last week or so they have launched an impressive campaign to keep me awake.

The first time I experienced a withering blast from only a few metres from my bedroom window at 2 a.m., I thought some joker was playing a high-powered CD recording on my lawn to give me a heart attack. It sounded like the bird was perched on the end of our balcony, but I suppose it must have been in the big spruce on the lawn. Whichever bird it is, it makes three or four runs through the entire impressive Barred Owl repertoire, and then I begin to hear answering calls. Both birds move about and the calls come from various directions. After a couple of nights of this, I began to realize that more than two birds were involved. Last night I could clearly distinguish four different voices. Presumably it is mama introducing the kids to the neighbourhood. The sessions vary from five to twenty minutes before the calls become so faint that I am no longer sure that I am hearing them, and I can try to get back to sleep.

Last night they turned up at 2:20 a.m., were particularly loud, and stayed the full 20 minutes. Just as they were getting very faint, a tribe of raccoons broke out in open warfare. It sounded as if at least one of them was being murdered. (That's probably wishful thinking). What an incredible racket they make! To make sure that they had done their job right, the owls then returned at 4:30 for a second run through the procedures. They stayed just until the dawn chorus got underway, and then the first crow arrived to take over their aggravation duties.

I suppose all this is the price you pay for finally having warm enough weather that we can sleep with the windows open. I need a nap!

—At the time of posting this delightful account to the NatureNS e-mail forum, John lived in Kingston. He has since moved to Hantsport but still gets over to the Fundy shore occasionally to report on the birdlife.



Seen in the Wild
Fall Birds (and Cats?) 2007
by Mike McCall

Save the Cats! . . . NO! . . . Save the Birds!

The tale of Jim Stevenson and his trial for shooting feral cats that were destroying migrating Piping Plovers on the south coast of Texas appeared recently in the *New York Times*. The subject has, once more, brought birders and cat lovers out of their corners with their dukes up, spoiling for a brawl between those who support individual rights and those who are more concerned about our fragile ecosystem.

Habitat destruction is by far the biggest threat to bird populations; secondary factors – birds killed in collisions with cars and windows, and electrocuted by power poles – run to the hundreds of millions. Nobody is sure just where cat kills fit in this continuum, but research implicates cats as a serious factor in the loss of native birds in specific habitats, mostly islands and often shorelines. This was what Stevenson was acting against when he shot the cat and was charged with cruelty to animals. After three days of deliberation, the jury assigned to determine Jim Stevenson's guilt or innocence was deadlocked; the case was dismissed. That the jury was conflicted to the point of paralysis will come as no surprise to those who wrestle with the problem of their love of cats and birds. We're here, the cats are here, and the birds are here, so we cannot walk back in time and "fix" the problem.

My computer will crash from old age before I can cover all the "yes buts," so I'll simply go back to my simple response to the Tweety-versus-Sylvester problem. Cats are not an endangered species, but many birds are. So if you must keep a cat, keep it in the house. And when its life is done, do what you did when your last Lada expired; don't get a new one. Give the bucks you'll save when puss is no longer a drain on the family budget to the SPCA's neutering program.

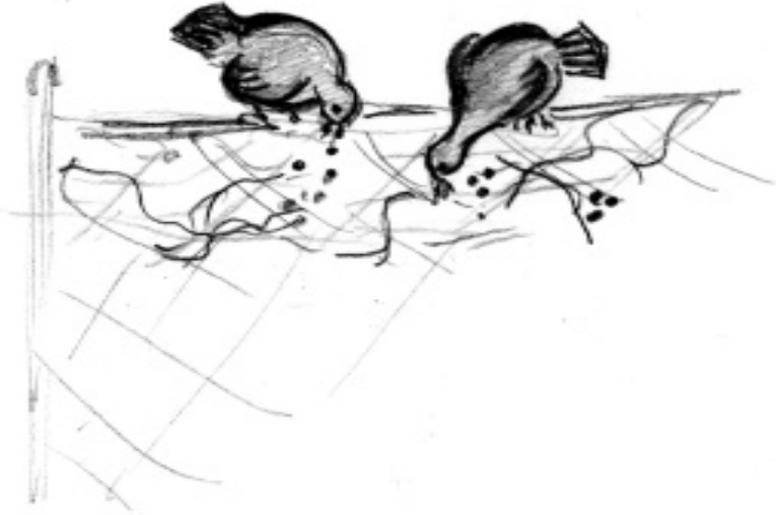
Birds

The NatureNS e-mail forum has pretty well become the place for bird news in Nova Scotia, and its local correspondents keep us up to date on what goes up, down, and across the horizon within sight of Blomidon, so

there's no point in my simply relaying reports you've already seen. But here are some recent tidbits. I was raised in Simcoe, Ontario, a few miles from a Carolinian forest on the north shore of Lake Erie, where cardinals, orioles, and Scarlet Tanagers were as common as UEL descendants (but a lot more colourful). Thus indoctrinated, I believe that every community should be graced by colourful birds, and I join our cardinal counters in celebrating the steadily increasing numbers of *Cardinalis cardinalis* in our area. Jim Wolford, Dolores Burton, and the Thextons all report numbers of apparently healthy redbirds in Wolfville as winter gets under way. Dolores and Bill and Brenda are also in the news with their sightings of Pine Grosbeaks along Fowler Street. A large flock (about 40) was also reported from Sydney in early December. Cape Breton, at least Canso, is also hosting some late-staying warblers: Pine, Parula, Yellow-rumped, and Palm Warblers were all reported in the first week of December. The same observer saw half a dozen Baltimore Orioles, one Bullocks Oriole, and a Blue-gray Gnatcatcher. Jim Wolford reports on a possible, but not confirmed, Canada Warbler at Port Williams.

Vultures get a bad rap from movie and TV filmmakers; when Billy and Sue sneak out of the New Mexico motel to “look around” before mom and dad wake up, and become lost in the desert, the circling of vultures accompanied by a few bars of the Funeral March tells us something really bad is going to happen to the tots; the large, black birds get a bad rap when, in fact, they are wonderfully effective scavengers. Billy and Sue don't know this. But the Parsi sect in India does; for centuries its dead have been placed on rooftops to which the winged undertakers flock, and the remains gradually disappear. However, a decline in vulture numbers may mean that even more valuable (and increasingly scarce) wood will be used for funeral pyres. These thoughts are prompted by news that we seem to have an uncommon (for Nova Scotia) Black Vulture hanging about near Canso. The observer thinks it doesn't have much energy and has tried setting up a feeding station but the bird is reluctant to come to the goodies. I do hope it survives its Nova Scotia adventure, perhaps Noel-induced.



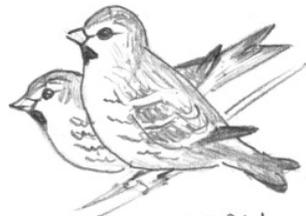


Here at Halls Harbour, several Ruffed Grouse performed like tubby highwire acrobats as they delicately negotiated a narrow fence-top and a high pergola to feed on Virginia Creeper berries. The birds came back day after day until their bounty was exhausted, but I came across one this morning, December 8, who came back for one last look at the empty vines and let me get very close before heading for the woods.

Ho ho ho.



EVENING
GROSBEAK.



REDPOLL

Call for Volunteers

Species at Risk Act (SARA) Watchdog

by Nature Canada staff

[This article was originally scheduled for the Fall 2007 issue, but there wasn't enough space. There is still plenty of opportunity to participate in monitoring the legal protection of listed species. —ed.]

Implementation of the federal Species at Risk Act (SARA) is reaching a critical moment, as recovery strategies for nearly 200 species are due for release. This is good news because it means that the legal protection we fought hard to secure through SARA is beginning to materialize for many species. However, we have to make sure that the government's recovery strategies are adequate for the recovery of each species and that they include the identification of each species' critical habitat. We need volunteers with expertise on species at risk to take on a watchdog role for each of the listed species for which federal recovery strategies are due.

[At the time of this printing] 151 recovery strategies are delayed and could be posted at any time. You can review the list of species in need of a watchdog at www.sararegistry.gc.ca/plans/timelines_e.cfm.

Tasks of a Species Watchdog

Step One (preliminary): If possible, speak with a nongovernmental representative on the recovery team for that species to find out the challenges that the team is facing (if any) and to help you prepare for issues you might encounter in reviewing the recovery strategy. Identify expertise (your own or someone in your organization). You can also try to track down a scientist knowledgeable in the area to provide comments to the draft recovery strategy (whether or not, for example, sufficient science exists to identify critical habitat). Monitor the SARA registry as frequently as possible (ideally, every other day) to find out when the strategy for the species in question is posted.

Step Two (once the initial draft recovery strategy is posted on the SARA registry): Posting starts a 60-day comment period. Carry out an analysis of the posted recovery strategy (Nature Canada will provide a template/checklist to facilitate your review and to promote consistency in all

reviews). The primary things to look for: Are the recovery population goals sufficient? Was critical habitat identified to the extent that it was possible to do so, based on available science and the precautionary principle? Have socioeconomic interests frustrated science-based mitigation measures? Identify recovery team members and experts for the species for which a recovery strategy is being reviewed and contact them for input or to find out whether they will submit comments. Where appropriate, provide formal comments to the federal government. Alert Nature Canada if you think that the recovery strategy does not meet the requirements of SARA and might merit a legal challenge (for example, Nature Canada and other conservation organizations sought judicial review of the recovery strategy for Piping Plover *circumcinctus* because the strategy did not identify critical habitat despite the fact that science is available to identify it). Copy Nature Canada on your comments so we can keep a record of all submissions and share them with the broader conservation community in Canada that will join in this effort.

Step Three (once a revised draft of the recovery strategy or an approved recovery strategy is posted on the SARA registry):

Submit comments on posted revised draft of a recovery strategy, where appropriate. Alert Nature Canada if the deficiencies you identified in the comments you submitted on a draft recovery strategies were not addressed in the revised or final recovery strategies.

Become a Species Watchdog

To become a Species Watchdog, contact Carla Sbert at csbert@naturecanada.ca or 1 800 267-4088, ext. 222.



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Seen in the Sky
An Unexpected, Unpredictable Comet
by Roy Bishop

I prepared “What’s in the Sky” for the fall edition of this newsletter last September. I did not mention the astronomical highlight of the upcoming season because at that time no one knew about it!

The highlight has been a comet. In orbit about the Sun for centuries, prior to 1892 it was very faint and no one noticed it. In that year it underwent an explosion, ejecting a cloud of dust and gas into the sunlight, making it much brighter for a few weeks. Edwin Holmes, an astronomer in London, England, was the first to see the comet and report it. As has been the custom, the comet was named after its discoverer.

Comet Holmes orbits the Sun, remaining between Mars and Jupiter. Until October 23, 2007, it was its usual dim self, not even detectable in an amateur’s telescope. But on that day, more than a century after Holmes discovered the comet, another even larger explosion occurred. Within hours the comet brightened by 600,000 times to become as bright as one of the stars in the Big Dipper.

I first saw Comet Holmes as evening twilight descended on October 25. The constellation Perseus had changed shape – there was an extra bright star in it!

From October 25, and continuing throughout November, the debris cloud of dust and gas from the explosion expanded in a remarkably uniform, symmetric, bubble-like fashion. The explosion was violent. It ejected thousands of tonnes of material at speeds more than twice that of a jet plane. To the unaided eye, for the first several nights the comet resembled a fairly bright star, but despite its great distance from Earth (240 million kilometres), by November 7 it had expanded sufficiently to reveal its fuzzy appearance to anyone who gazed at it. By mid-November its debris cloud had become the largest object in the Solar System, exceeding even the Sun in diameter. In 50 years of scanning the sky, I have never seen anything like it.

As the debris cloud has expanded, its surface brightness has been fading, such that the overall brightness of the comet has been nearly constant, indicating that there is a fixed amount of dust in the cloud. The explosion must have lasted a few hours or less, and is not still ejecting additional material into the expanding debris cloud.

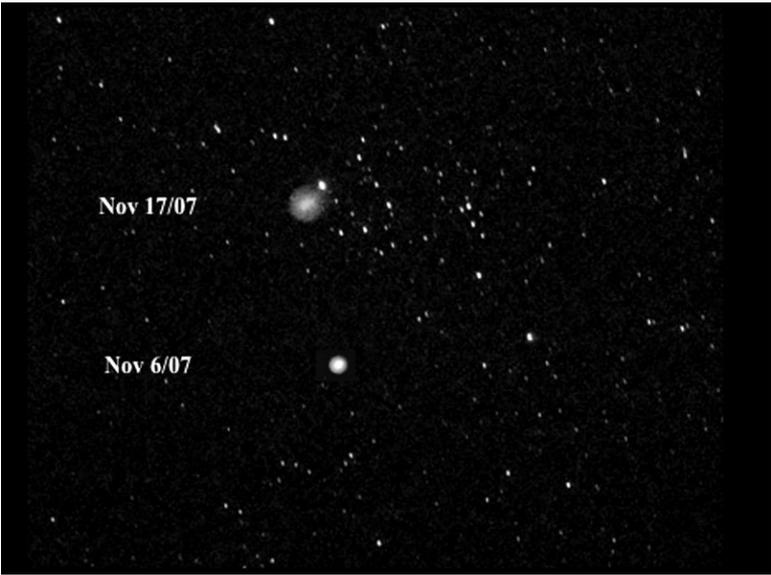
Two other features of Comet Holmes are remarkable. It has been almost stationary in the sky, remaining near Mirfak, the brightest star in Perseus, for several weeks. Also, the comet has not displayed an obvious tail, resembling a distant nebula more than a typical nearby, bright comet. These two factors result from the comet's lying well beyond the orbit of Mars, more than 1.6 times further from Earth than Earth is from the Sun, and it is currently in the opposite part of the sky from the Sun. Thus the comet is near opposition undergoing a slow retrograde loop, and we view it almost head-on such that its tail is mostly hidden behind it.

No one knows why the comet exploded, what triggered the dramatic release of dust and gas from its cold, mountain-sized, dark, icy nucleus. A collision with another object, such as a fragment of an asteroid, is a possibility, though unlikely (space is remarkably empty, even near the asteroid belt). Also, the fact that Comet Holmes erupted in 1892 pretty much rules out a collision as the cause (one collision would be rare; the chance of two collisions with the same comet approaches zero). Solar heating might have powered the explosion, but Comet Holmes orbits around the Sun every seven years; if solar heating was the cause, why does the comet not act up every time it is near perihelion?

Likely we will never know what happened to Comet Holmes on October 23. All comets are somewhat unpredictable. Comet Holmes is clearly one of the most unpredictable comets in the Solar System.

Photos (opposite)

Top: Composite starfield photo by Sherman Williams, similar to a binocular view. One component was the comet taken Nov 6, 2007, and placed in the appropriate star position of the photo taken Nov 17 to show the shift in position and change in size. The Nov 17 angular diameter of Comet Holmes is about one-half degree, about the same as the apparent size of the Sun or Full Moon as seen in the sky. The star field is an



S-shaped cluster of stars in the constellation Perseus, known as Melotte 20.

Bottom: Comet Holmes taken through a telescope on November 18 by Doug Cunningham, a keen naturalist and amateur astronomer who now lives on the Bruce Peninsula in Ontario. Doug is a former Nova Scotian with close ties with Hantsport. The bright star is Mirfak, the brightest star shown in the Melotte 20 star cluster of Perseus.



Natural History
A Rare Martian Christmas
and a Winter Project
by Roy Bishop

Earth has been trying to catch up to Mars for more than a year, and finally does so on December 24. In astronomical jargon, Mars is “at opposition” that day, opposite the Sun in the sky. Thus, Mars rises in the northeast as the Sun sets in the southwest on Christmas Eve, and Mars sets in the northwest as the Sun rises in the southeast on Christmas morning.

Oppositions of Mars are separated by more than two years, the longest interval between any of the planetary oppositions. However, an opposition of Mars on Christmas Eve is even more uncommon. No one alive today has ever seen one, and no one alive today will experience another Martian opposition on Christmas Eve. The last time an opposition of Mars fell on December 24 was in the year 1802; the next time will be in 2212.

Another unusual feature of the Martian Christmas of 2007 is that Mars will be positioned very high in the night sky, being nearly overhead at midnight. Although oppositions of Mars recur at just over two-year intervals, it is only every 16 years that, when at opposition, Mars is located so high in the sky over Nova Scotia. Astronomers like this because there is less air to look through, resulting in steadier telescopic views.

An interesting project for this December, January, February, and March is to record where Mars is relative to the stars near it in the sky. No telescope is needed, only a star chart, a pencil, and an observation every few days (at least once a week). Actually a star chart is not even necessary, provided you make your own star chart – carefully record the star pattern in the vicinity of Mars on the night when you begin the project. The first observation will take several minutes as you sketch the positions of several stars near Mars, but on subsequent evenings only a minute or less will be needed to record the position of Mars relative to the stars on your chart.

Where is Mars in the sky? In mid-evening in mid-December Mars is the brightest star-like object in the eastern sky. It has a distinct orange colour.

The point of observing and plotting the position of Mars is to experience the effect of the orbital motions of both Earth and Mars as we pass Mars on our faster, smaller orbit. Mars orbits the Sun in the same direction that Earth does, but when we overtake Mars in our faster orbit, we see Mars appear to stop and move backwards for several weeks before resuming its normal eastward path against the background stars (like passing another car on the highway). This backward motion is called “retrograde motion” (more astronomical jargon). Mars was stationary on November 15 and has already begun its retrograde motion, so if you want to do this project, begin on the next clear night!

Retrograde motion puzzled people for centuries until Copernicus proposed that the Sun, not Earth, was at the centre of the Solar System. Once people recognized that Earth was one of the planets, retrograde motion had a simple, obvious explanation.

By recording the position of Mars once or twice a week this winter, one of the most historic aspects of planetary astronomy will become real for you. It will be etched in your memory for the rest of your life. Reading about it (as in this article) or seeing a simulation on a computer monitor or television screen doesn't cut it.

Seen in the Wild **Hummer Encounter**

[From a couple of posts to the NatureNS e-mail forum – names withheld to protect the guilty –ed.]

May 10, 2007 [EL] This morning I watched hummingbird behaviour I have never seen before: It seemed to be having a spat with a chickadee in a tree overhanging my deck, flying at it, chattering furiously and zig-zagging back and forth in front of it and very close to it. Every time the chickadee moved the hummer followed it and resumed its zig-zag behaviour.

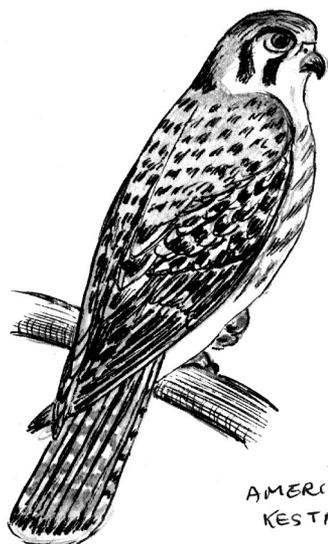
[WF] Hummingbirds combine the body of a cottonball with the personality of an enraged rhinoceros.

Raptor Rehab

The Hope for Wildlife Society

by Hope Swinimer

We have important news to share and would like your help getting it to your friends and colleagues. We need your help this year more than ever.



We are very excited to announce that the Hope for Wildlife Society is now undertaking the rehabilitation of raptors (birds of prey). The operators of the Atlantic Raptor Rehabilitation Centre, Head of St. Margarets Bay, have retired after 25 years of selfless service and have generously donated over \$30,000 worth of flight cages to the Society.

Our new Raptor Rehabilitation Program makes this the second major program taken on by the Society over the course of a year. In 2006, we successfully qualified to establish the only licensed program for the Rehabilitation-for-Release of White-tailed Deer.

As our Society grows and expands into new areas, it is critical that we build a strong support network, not only to seek donations but to explore other methods of fundraising (such as individual and corporate sponsorships). It is in the area of fundraising that we would like to ask for your help this year.

As a society that receives no government funding for our day-to-day operations, we must increase community awareness of the importance of our work with wildlife and the environment. By expanding our community education programs, we can educate people on the importance of the need for careful interaction between humans and wildlife, and stress our responsibilities when wildlife is injured due to interaction with us (cars, dogs, cats, window strikes, etc.).

While many people enjoy our annual Coffee House at Cole Harbour Place (April 13, 2008) and the annual Open House at our facility in Seaforth (August 24, 2008), they do not see the effort that occurs behind the scenes. Not many people realize that our volunteers work from 6 a.m. until midnight seven days a week during our busy season, when the babies are constantly arriving and needing care and feeding. They also may not realize that funds raised through the Coffee House and Open House are critical to our survival. As a result, we greatly appreciate the donation of silent auction items for the Coffee House and Open House. All donations can be dropped off at the Dartmouth Veterinary Hospital, 61 Tacoma Drive.

I would like to thank you for your ongoing support, and I cannot stress strongly enough how important it is that we get the word out to the community about our society and its programs. The need for financial support to keep our programs running is critical.

Warmest regards,

Hope Swinimer, CVPM
Founder and director, Hope for Wildlife Society
5909 Highway 207
RR 2, Site 14, Box 1
Head of Chezzetcook, NS B0J 1N0

To learn more about the Society and the wildlife we work with and how you can participate, please visit our website: <www.hopeforwildlife.net>.



Eastern Annapolis Valley Weather

Fall 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)
September (46 yr. average)	21.5 (20.0)	9.8 (9.4)	15.7 (14.7)	60 (93)	233 (169)
October (46 yr. average)	16.3 (13.7)	5.4 (4.7)	10.9 (9.2)	57 (109)	157 (140)
November (46 yr. average)	8.5 (7.7)	-1.5 (0.2)	3.5 (4.0)	177 (117)	76 (80)
Season (46 yr. average)	15.4 (13.8)	4.6 (4.8)	10.0 (9.3)	294 (319)	466 (389)

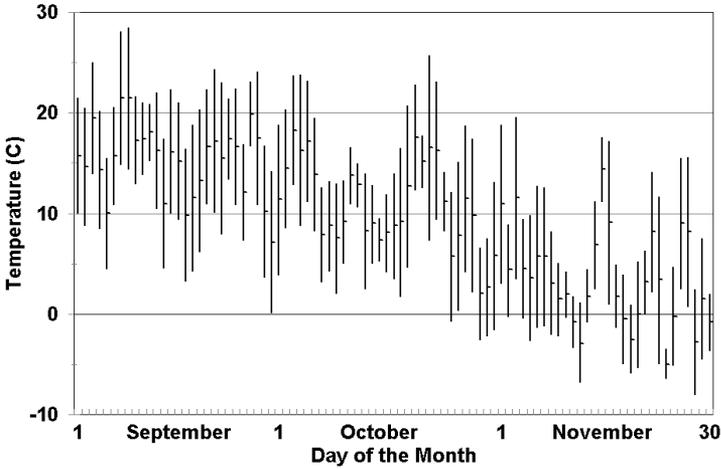
Source: Food & Horticultural Research Centre, Kentville, NS

The major characteristics of this season were the beautiful dry, warm days of September and October and the sudden change to the cool, wet, and variable weather of November. What a contrast. These properties are reflected in the numbers in the summary table.

Temperature

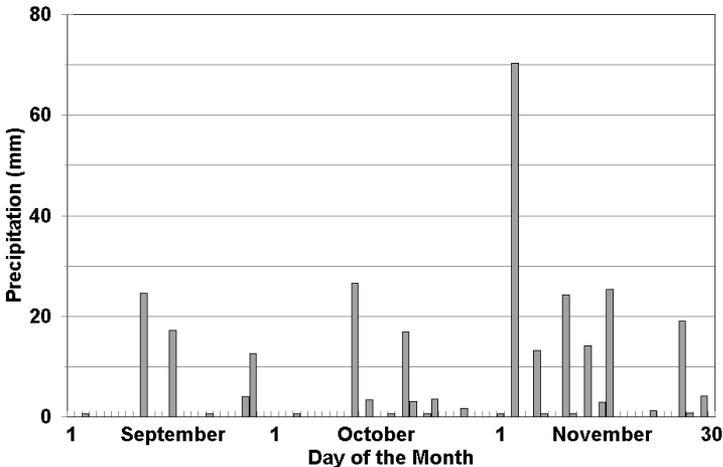
Both September and October were more than 1 °C above average, while November was half a degree cooler. However, to really understand what November was like, look at the mean maximum and minimum temperatures. The highs were higher by 0.8 °C and the lows were lower by 1.7 °C. The daily temperatures graph shows this dramatically. Look at the rapid swings in the temperature in November compared with the gentle swings in October. Those ups and downs were due to the battle between cold air masses moving down from the north and the warm air flowing up from the Caribbean. The mild weather during the first of the season yielded a long frost-free period. The temperature only touched zero

**Daily Temperatures, Max, Min, Mean
Sept-Oct-Nov 2007 -- Kentville, N.S.**



twice before the last few days of October and only consistently dropped below freezing in November. September was phenomenal in that it had 21 days with high temperatures above 20 °C.

**Total Daily Precipitation
Sep-Oct-Nov 2007 -- Kentville, N.S.**

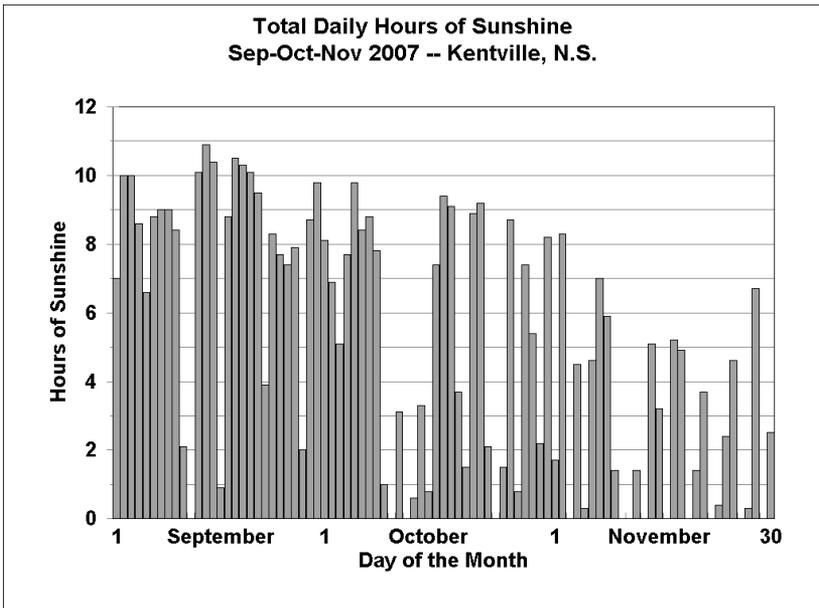


Precipitation

Total rainfall for the season was a little below average (92%) and would have been a lot lower if we had not had the 177 mm in November. Tropical storm Noel helped by dropping 70 mm on Kentville on the 3rd. Noel contributed nearly one-quarter of the season's rainfall. We did have 9 cm of snow on the 11th and 12th of November. Though in recent years we have not seen snow until almost New Year, it is normal to have, on average, 12 cm of snow in November.

Sunshine

September was very sunny, with nearly 25% more bright-sunshine hours than we should expect in an average year. There is always a dramatic decrease in bright-sunshine hours as we pass through the autumnal equinox. Not only does the Sun rise later and set earlier, but the skies become cloudier. Note in the sunshine chart the increased number cloudy days as the autumn season progresses.



In early December we had snow on the ground and predictions are, that due to La Niña, we are to have a colder and wetter winter than we have had recently. To see the predictions, go to www.weatheroffice.gc.ca/saisons/index_e.html#elninolanina.

What's in the Sky?

by Roy Bishop

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. All of Antarctica is bathed in sunlight 24 hours a day.

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

December 24: Mars is at opposition, the first time this has happened on Christmas Eve in 205 years (see the article on this topic elsewhere in this newsletter).

January 3: The Quadrantid meteor shower peaks after midnight tonight. Never heard of the Quadrantids? It is a stronger shower than the Perseids in August, but lasts only a few hours. Dress warmly and go where there are no streetlights or yard lights to spoil the view!

January 22: Full Moon

January 31: Tomorrow morning Venus and Jupiter make a striking pair in the eastern morning sky before sunrise. See the astronomy note on the January page of your BNS Calendar for more information.

February 20: Full Moon and a Total Lunar Eclipse! See the astronomy note on the February page of your BNS Calendar for more information.

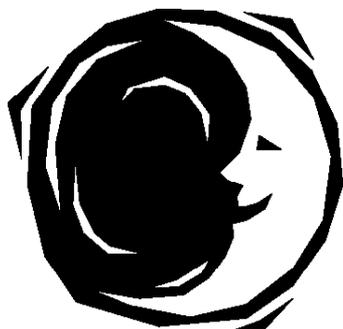
February 24: Saturn is at opposition and well placed for viewing in the late evening during the closing weeks of the winter of 2008. Of all the telescopic views in the sky, Saturn is without doubt the most memorable. At least once in your life you should avail yourself of a good telescope and look at Saturn.

March 20, 02:49: Equinox: The Sun lies above the equator and spring

begins in the Northern Hemisphere.

March 21: Full Moon

April 8: After sunset, the waxing crescent Moon will pass by the Pleiades star cluster. See the astronomy note on the April page of your BNS Calendar for more information.



Blomidon Naturalists Society
Financial Notes for Our Past Year
by Ed Sulis, BNS treasurer

Increases in publishing and postage costs for the newsletters have reached an annual total that now exceeds the total revenue from memberships. A single membership fee of \$20 for all has been approved, effective membership year 2008, to correct this imbalance.

The failure of the Young Naturalists programs to receive major support from our federal government required some scaling back of activities and the Society's yearly budget for the Young Naturalists from \$2000 to \$5000. An appeal to members was also made and the response was beyond our expectations: many thanks to those individuals for the great support. The TD bank through the area branch of the TD Friends of the Environment Foundation was a new and major contributor to the Young Naturalists as well.

Memberships for the past year break down as follows: paid in 2007, 173; paid in 2006 but not continued, 34; honorary, 13; and courtesy, 44.

Note: Your investment committee is Richard Stern, Roy Bishop, and Ed Sulis (treasurer and writer of this note). Any one of us will be glad to expand on the financial health of the Society, our investment account details, or BNS finances in general.

Blomidon Naturalists Society			
Box 2350 Wolfville, Kings County, NS, B4P 2N5			
Year End Statement of Income, Expenditures and Net Worth, from 1 September 2006 to 31 August 2007			
Description	Credits	Debits	Balance
INCOME			
Advertising	375.00		
Book / Crest Sales (miscellaneous from write downs)	234.00		
Blomidon Naturalist Society Fees	2,907.00		
Within the View of Blomidon: Sold 349	5,573.00		
Calendar 2007: Sold 798	11,923.00		
Hat Sales: Sold 12	180.00		
Donations (Calendar)	2,000.00		
Nature Nova Scotia (50 dues * 5.00)	250.00		
Grants and donations for Young Naturalists	8,204.00		
Interest / Dividends (See cash in Endow. & G.I.)	0.00		
Other Donations	1,080.00		
HST Rebate	698.00		
	33,424.00		33,424.00
EXPENDITURES			
Administration		522.00	
Awards and Meetings		947.00	
Calendars (cost of 2007 edition)		7,100.00	
Nature Nova Scotia (as above+ 100.00 BNS membership)		350.00	
Memberships in other organizations		110.00	
Nature Displays		667.00	
Newsletters (cost includes printing and postage)		3,371.00	
Within the View of Blomidon		11,286.00	
Investments (see details below)		0.00	
BNS Hats		1,232.00	
Transfers to Endowment or G.I.		0.00	
Young Naturalists		12,275.00	
		37,860.00	37,860.00
Excess; (or -) Income over Expenditures			-\$4,436.00
Net Worth as of 31 August 2007			
Bank Account (with deficit and all bills paid)			\$1,699.00
Endowment Fund (54YL48A)	Cash: \$480.	Securities: \$32,400.	\$32,880.00
General Investment (55MH41A)	Cash: \$368.	Securities: \$8,125.	\$8,494.00
Within the View of Blomidon	Sold: 349	Inventory 650 @ \$11.30	\$7,345.00
Hats	Sold: 12	Inventory 132 @ \$8.55	\$1,128.00
Net Worth as of 31 August 2007			\$51,546.00

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

