

Blomidon Naturalists Society

Spring 2006 – Volume 33 Number 1

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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Treasurer	Ed Sulis	678-4609
Secretary	Helen Archibald	582-1561

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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.

Visit us on the web
<www.blomidonnaturalists.ca>

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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 (25 Gaspereau Ave., #1, Wolfville, NS B4P 2C5) or by e-mail <jtimpa@ns.sympatico.ca>.

Upcoming newsletter deadline

Summer, June 9, 2006

Editorial Board

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EDITORIAL

This and That, Out and About

Well, winter seems to have come and gone with a whimper – such a pleasant change from the last five years of gruelling snow, cold, and expense. Two of our snow-related field trips were not only postponed but due to lack of snow could not even be rescheduled. [We'll try again in 2007.] However, the tradeoff for the super-mild, dry weather is very low water tables already and the blue haze in our skies in late March as grass and forest fires flared up more than usual, out of control in unexpected fury. A number of bird and plant species are returning earlier than normal or blooming earlier by quite a bit than their expected dates. Rare birds from the south and west are becoming more commonplace. What does this all mean?

More than ever, “sustainability” is becoming the buzzword in the media and in conversations with family and friends. Awareness of the immediate need to drastically slow down overpopulation, over-consumption, all types of pollution, and wasteful transportation and energy consumption is becoming acute. The town of Wolfville now has a sustainability committee, which meets on the first Tuesday of the month (May 2, June 6, etc.). Meetings are open to the public at the council chambers in the town hall at 7 p.m. Wolfville is one of the few towns in Nova Scotia so far to have such a committee. Come see what is going on and take back ideas to your own community. A coordinator/planner, Karen Dempsey, has been hired to gather information, write reports, and make recommendations.

So, for some practical sustainability, here's to a wonderful gardening season. We can all grow at least some of our own fresh food and preserves, even it is just a bit of tokenism in a large pot. If you have land, use it for more than just grass (Nova Scotia does *not* have any native prairie). Pick a corner and plant a variety of trees and shrubs that will soon give more shelter and food to more critters. Let a piece go wild; go back to nature by encouraging rather than discouraging it. If you don't own land, get involved with the Nova Scotia Nature Trust. And spread the word!

—Jean Timpa, editor

CALL FOR PHOTOS

2007 BNS Natural History Calendar

Photo submissions are invited for possible use in the 10th edition of our society's Natural History Calendar. Submissions should be in one of three forms: colour negative, colour slide, electronic (JPEG format, file size between 300 KB and 2 MB)

If only a print is available, it should be 5" x 7" or larger. If you submit a colour negative, it would be helpful to include a small print for an initial evaluation of the photo.

We prefer photos of natural history interest taken in Nova Scotia. Please do not submit 113 of your photos and expect the Calendar committee (Roy Bishop, Merritt Gibson, Sherman Williams) to sort through them; submit no more than ten of what you consider to be your most suitable photos. Suitability involves technical quality (sharp focus, absence of under- or overexposure), composition (main object of interest nicely positioned, no distracting background), and content (not similar to photos in the current calendar, and an image that calendar users will enjoy looking at for a month).

Negatives, slides, and prints will be returned, so be sure to include your name, phone number, and postal address. Send submissions to Roy Bishop (rg@ns.sympatico.ca or RR 1, Avonport, NS B0P 1B0, 542-3992).

Acknowledgements

The cover illustration is the interpretation of our resident artist, Mary Pratt, of a midwinter sighting reported by George Forsyth of a dolphin frolicking in the Habitant River at high tide just downstream of the aboiteau.

The 2005 Wolfville Christmas Bird Count and the 2006 raptor count will be reported in this newsletter in the upcoming summer issue.

Blomidon Naturalists Society

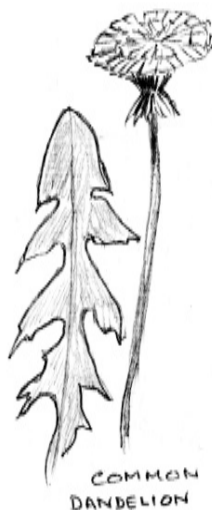
Spring 2006

Meetings

Unless otherwise noted, meetings are held at 7:30 p.m. on the third Monday of each month (except July and August) in the auditorium of the KC Irving Environmental Science Centre, Acadia University. The Centre is on University Avenue, up the hill from the Acadia arena. 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, May 22, 2006 – Mi'kmaq Medicinal

Plants. Laurie Lacey, of the Mersey Tobiotic Research Institute and author of *Micmac Medicines: Remedies and Recollections*, is a writer, painter, naturalist, and medicine maker who has been involved with native medicinal plants and trees for the past 32 years. He is the author of *Natural Healing Talk*, a biweekly e-mail newsletter. His talk will focus on Mi'kmaq plant and tree medicines. The evening will be an entertaining mixture of remedies and stories. Laurie will also have copies of three books for sale: *Micmac Medicines*, *Medicine Walk*, and *Black Spirit*.



Monday, June 19, 2006 – Travels in South

America. Last fall Roy Bishop and Larry Bogan, both past-presidents of BNS, spent a month in South America, travelling 9,000 km by road in Uruguay, Argentina, and Chile, crossing the Andes twice and spending five days in the driest desert on Earth. They visited five major astronomical observatories and encountered interesting wildlife, including llamas, vicunas, rufous honeros, caranchos, and tarantulas.

Field Trips

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

Tuesday, May 2, 2006 – Acadia University Woodland Trail and Harriet Irving Botanical Gardens Biodiversity List. We will take a walk every Tuesday evening throughout the spring and summer to look for flowering plants, nesting birds, mushrooms, butterflies, dragonflies, etc. We will keep a list of what we see and when we see it so we will know what is there and what time of year it first appears. This will be done in cooperation with, and in support of, the KC Irving Environmental Science Centre and will hopefully become a long-term project with the collection of some interesting information. Over the years, as the gardens become more established and more native species are introduced along the trails, it will be interesting to see if biodiversity of wildlife increases. We need lots of people to show up to help spot and identify the different forms of natural history. Meet at 6:30 p.m. at the main entrance to the Harriet Irving Botanical Gardens on University Avenue, Wolfville.

Saturday, May 13, 2006 – Spring North American Bird Migration Count. Everyone interested in counting birds is invited to participate in the 15th annual NAMC. See coordinator Hans Toom's article on page 14 for more information.

Saturday, May 20, 2006 – Cape Split Hike. Make a trip to Cape Split with leaders Sherman Williams (902 542-5104) and Jim Wolford (902 542-9204). There will be interpretive stops along the way. Spring wildflowers and birds should be abundant. During the morning the tide will be dropping and reversal will be about noon. Meet at the Wolfville waterfront at 8:15 a.m. or at the start of the trail in Scots Bay at 9 a.m.

Sunday, May 21, 2006 – Blomidon Provincial Park. In conjunction with Parks Are for People, Jim Wolford (902 542-9204) will lead a walk from the campground about 2 km to the temporary pond that has the very rare and beautiful Fairy Shrimps, etc., and to the lookoff toward Five Islands Park. This is a beautiful time of year and location for spring flowers and birds. Meet at the Wolfville waterfront at 9:15 a.m. or at the upper gate of Blomidon Park at 10 a.m.

May 26–28, 2006 – The 2006 Nature Nova Scotia (Federation of Nova Scotia Naturalists) Annual General Meeting and Conference. The Annapolis Field Naturalists Society will host the conference at the Annapolis Basin Conference Centre, Cornwallis Park. The theme is Our Natural History – Changing Lands and Waters. In keeping with recent commemorative celebrations in the region, we want to highlight the “history” in natural history by exploring the ways in which our natural habitats and wildlife populations have changed over the past 400 years of European settlement. We will also look at some of the initiatives being undertaken by many organizations in Southwest Nova in education, research, monitoring, and restoration of some of our natural treasures that have become somewhat tarnished with time. A particular focus will be on the many natural features that make Annapolis County and Southwest Nova such an exhilarating and enjoyable place to live and to visit. We have an interesting and inspiring story to share with the rest of the province. The program committee has put together a weekend full of excellent talks, social times, and field trips. See the NNS website <naturens.ca> for more information, and see <www.abcc.ca> for information about the Conference Centre, located on the shore of the scenic Annapolis Basin.

Saturday, June 3, 2006 – Palmetter’s Woods. Judy Tufts (902 542-7800) and Nancy Nickerson (902 542-9332) will lead a walk through the woods, located behind Evergreen Home for Special Care (655 Park St), in the western end of Kentville. Come and explore this little green gem with us. Look and listen for local birds, and search the woodland floor for flora and fauna. This is a good chance to see a variety of warblers, other migrants, and fascinating woodland plants. Meet at the Wolfville waterfront at 8 a.m. or at the parking lot behind Evergreen Home at 8.30 a.m. Juniors to seniors welcome. (The early meeting time will give more time to hear birds, as they are most active in the early morning.)

Saturday, June 10, 2006 – The Old Wolfville Reservoir includes a large track of diverse forest habitats on Gaspereau Mountain. Ford Spidle (902 679-0233) will lead a joint tour with the Nova Scotia Nature Trust through this area, which is being turned over by the Town of Wolfville to the Nature Trust for protection. Meet at the Wolfville waterfront at 9 a.m. We should be back by noon.

Sunday, June 11, 2006 – Neary Pines Bald Eagles. George Forsyth (902 542-7116) will lead this walk to see the oldest pine/hemlock forest in the Valley, original Acadian cellar remains, active bald eagle nest, Poor Farm graveyard and beech hardwoods along the Cornwallis River, and the birds and flowers along the way. Meet at the Wolfville waterfront at 9 a.m. or Noggins Corner Farm in Greenwich at 9:15 a.m. for this easy hike, done by noon.

Wednesday, June 28, 2006 – Smileys Provincial Park. Ruth & Reg Newell (902 542-2095) will lead this walk. In addition to better-known plants, Smileys Park is also home to the Showy Lady's-slipper, a beautiful, but threatened, plant. We hope it will be in bloom at the time of our visit. Meet at the Wolfville waterfront at 6:30 p.m. or at Smileys Park at 7:15 p.m.

Wednesday, July 12, 2006 – Acadia University Woodland Trails. Ruth & Reg Newell (902 542-2095) will take us on a leisurely two-hour stroll along the newly minted woodland trail system at Acadia University. Meet at the KC Irving Environmental Science Centre at 6:30 p.m.

Sunday July 30, 2006 – Aylesford Mountain Nature and Historical Walk. George Alliston will lead this walk on the 400-acre Aylesford Mountain property, located on the North Mountain of the Annapolis Valley and owned by the Nova Scotia Nature Trust. Enjoy a walk through the woods and observe pockets of old forest, a vaulted brook, open meadows, and remnant signs of the area's agricultural past. During the walk, participants will also learn about the intriguing history of the property. Bring a hat, camera, comfortable hiking boots, long pants, mosquito repellent, sunscreen, lunch, snacks, and water. Hiking time will be approximately three hours, predominantly along footpaths, with some moderate to steep slopes. Register by calling Duncan Bayne at (902 425-5263) between 9 am and 5 pm weekdays, or register by e-mail <duncan@

nsnt.ca>. Meet at the Wolfville waterfront at 9 a.m. or at the start of the walk at 10 a.m. [Take Exit 16 (Aylesford) off Highway 101 and follow signs north toward Victoria Harbour. At the T-junction in the road at the brow of the North Mountain, turn right onto Brow of Mountain Road (gravel) and travel 0.8 km beyond the twin transmission towers to the junction with the first road to your left (marked with a combination of orange and blue flagging tape on bushes). Although the side road looks like a woods road, it is a public road (unmarked but known locally as the Lightfoot Road) and can be driven by car without difficulty by proceeding slowly and carefully. Turn left onto this road and proceed 1.7 km until you see orange and blue flagging tape at a Y in the road. Proceed 100 m along the left branch of the Y and park anywhere in the open area.] The walk will start here at 10 a.m.

Saturday, August 5, 2006 – Gaspereau River Trail. Take an afternoon walk up the White Rock Nature Trail with Bernard Forsythe to look at midsummer plants and birds. If there is heavy rain, the trip will be postponed until Sunday, August 6. Meet at the Wolfville waterfront at 1 p.m.

Saturday, August 19, 2006 – Shorebirds of the Minas Basin. Jim Wolford (902 542-9204) will lead a joint field trip with the Nova Scotia Nature Trust to see the shorebirds of the Minas Basin. This is peak time for the thousands of Semipalmated Sandpipers that stop here after their summer in the Arctic to fatten up before they fly nonstop to spend the winter in South America. There are lots of other shorebirds to see as well. We will first go to the Windsor sewage ponds, then to Grand Pre/Evangeline Beach. Meet at 9 a.m. at the Wolfville waterfront or 9:30 a.m. at the Windsor Tourist Bureau off Highway 101 at Exit 6.

Friday, August 25 and Saturday August 26, 2006 – Nova East 2006. Atlantic Canada's longest-running star party will be held at Smileys Provincial Park near Brooklyn in Hants County. Some of the presentations and workshops, as well as the Saturday evening observing session, are open to the public. There will be one series of three workshops on the theme of how nighttime naturalists can migrate to the daytime universe. Nova East is hosted jointly by the Halifax Centre of the Royal Astronomical Society of Canada, the Minas Astronomy Group, and the Nova Central Astronomy Club. More information can be found at <<http://>

Sunday, September 10, 2006 – Kingsport Intertidal Mud Flats Fauna and Flora. Jim Wolford (902 542-9204) will lead this joint trip with the Halifax Field Naturalists on an extra-low tide. The mud flats are absolutely full of diverse critters with fascinating life-histories and diets. See lots of shells, worms, crabs, shrimps, hydroids, snails, clams, fish, etc. Meet at the Wolfville waterfront at 8 a.m. or Kingsport wharf at 8:30 a.m. sharp to reach the low-tide mark by 9:30. Wear rubber boots or old running shoes that can be washed off afterward (we have access to a hose). Also bring snacks and drinks. Difficulty is moderate (walking in the mud is good exercise but can be tricky). The trip will be about three hours long.

Notes from the Program Committee **by Patrick Kelly**

The main work of the program committee is to line up speakers for the society's monthly meetings and to arrange for field trips. The committee consists of Patrick Kelly (chair), Harold Forsyth, and John Harwood. As a newcomer to both BNS and its executive, I would like to thank the previous committee (of which Harold was the chair) for lining up speakers for the early part of 2006 so we didn't have to start off in a panic.

When I first started attending BNS meetings I was amazed at the number and diversity of field trips. So when I agreed to chair the committee I was somewhat wary about what was involved, as most of my organized naturalist background has been in astronomy, a specialized subject for which finding speakers was always a challenge. I have since discovered just how broad a subject natural history is, and that speakers are not as hard to come by as I had originally feared.

I think it is appropriate to publicly thank all the speakers and field trip leaders we have had over the past years. They have done a marvellous job. And even if members cannot attend every event, they can read reports of many of the field trips in the BNS newsletter. These reports not only

encourage people to come out if a particular trip is repeated in the future, they also provide a permanent record of the activities of the society.

While we already have some commitments for speakers for the fall and winter, feel free to contact one of us with any suggestions (topics you think would be of interest or people with expertise in a particular area). For field trips, we have been hoping to find more people willing to lead trips, especially in the western part of the BNS area. While some field trips do require the leader to have advanced knowledge (e.g., particular rare wildflowers), that is not always the case. For many people, just discovering a new walk/hike/trail makes for a great field trip; the main leadership requirement is to know how to get in and out without getting lost! There is also a very good chance that if you do come across something of interest, someone in the group will know what it is.

As the British comedy team Two Ronnies used to say, “We have a packed program for you this evening.” We hope that you enjoy the packed program we are putting together for the coming year.

NOTICE
PlantWatch
by Melanie Priesnitz

Follow a Nova Scotia Tradition – Become a Citizen Scientist

In 1905 the first spring bloom of *Rhodora* (*Rhododendron canadense*) was observed in Kings County, Nova Scotia, on May 22. In 2005, at Acadia’s Harriet Irving Botanical Gardens, the first spring bloom of *Rhodora* was observed on May 9. We know this thanks to record-keeping efforts by volunteers and school children from across the region.

From 1892 to 1923, Nova Scotia school children under the direction of the superintendent of schools, Dr Alexander Howard McKay, recorded each year more than 200 natural events. One of them included documenting the timing of spring blooms. In 1996 a similar program called PlantWatch was started in Nova Scotia. Today volunteers across the province record the first signs of spring from 16 plant species, including the common dandelion and more unusual bearberry.

These record-keeping efforts are valuable tools for researchers interested in plant interactions and climate change. Further research is needed to discover why plants such as Rhodora bloomed 13 days earlier in 2005 than in 1905. Is this a result of a global climate change or simply due to a particularly early or late spring in one of the years recorded? To answer these questions we must collect a great deal of data.

Participating in PlantWatch is a great way for people and families to contribute to science while getting outside and taking in the beauty of our natural world. To become a citizen scientist, register with the PlantWatch program today and start watching and recording the first signs of spring in your region. For more information call 902 585-1916 or visit the website <www.plantwatch.ca>.

If you or anyone you know was involved with McKay's original survey or keeps a nature journal today, we'd love to hear from you. Contact us through our website <<http://botanicalgardens.acadiau.ca>> or call the number above.

*Melanie is NS PlantWatch
Coordinator and Conservation
Horticulturist, Harriet Irving
Botanical Gardens*



NOTICE

Nova Scotia North American Migration Count (NAMC)

Our 15th successive NAMC will be held May 13, 2006 (this annual snapshot of migratory birds as they wing their way north is always held the second Saturday of May). Last year more than 700 Nova Scotia observers tallied 209 species and over 123,000 individual birds, an effort as good as anywhere in North America, given our population.

This is my first year as provincial coordinator, but I follow in the footsteps of our trailblazer Judy Tufts, who led the count since 1995 and continues as coordinator for Kings County and as my mentor and guide.

Participation is easy: just contact your provincial coordinator or regional representative and get a territory to walk or drive, a feeder to watch, or an owl route to listen on, and you're in business. After the count you simply fill out a form and return it to your county or regional coordinator. The Nova Scotia NAMC website <www.hanstoom.com/NAMC/Index.html> provides information on how to participate, copies of forms, and the records from all previous counts. If you have suggestions, questions, or feedback, please let me know (use e-mail address below).

Join me in continuing this important project – but most of all have fun!

Hans Toom

Provincial Coordinator, Nova Scotia NAMC

telephone: 902 868-1862

e-mail: htoom@hfx.eastlink.ca

Annapolis Valley county coordinators:

Hants East: Roslyn MacPhee (902 758-3265)

Hants West: Patrick Kelly (902 798-3329)

Kings County: Judy Tufts (902 542-7800)

(for the Kingston area, please contact Sheila Hulford, 902 765-4023)

Annapolis County: Hans Toom (902 868-1862 or htoom@hfx.eastlink.ca)

(Anyone interested in helping coordinate Annapolis County, or parts thereof as a regional representative, would be most welcomed by Hans.)

BNS FIELD TRIP REPORT
Pleasant River Blanding's Turtle
by Brennan Caverhill

June 18, 2005 – On this warm and sunny Saturday, about a dozen Blomidon naturalists made the hour-and-a-half trip from Wolfville to Pleasant River to meet Nova Scotia's endangered Blanding's Turtle. I led the trip along with Colinda Vergeer, an honours student from the Netherlands. Peter Hope, a resident of South Brookfield, also attended and provided his expertise.

The turtle team met the naturalists in a church parking lot adjacent to Winnie Allen's house, which is where I board during the summer field seasons; it is also a mere 200 m from prime Blanding's Turtle habitat. I had glued a radio-transmitter to the shell of a Blanding's turtle that morning, so the naturalists were introduced to a live turtle before they left the parking lot. After looking at habitat maps and discussing seasonal movements and so forth, the group drove a short distance down the road to the abandoned railway used to access the Stillwater wetland systems the Blanding's call home. After exploring the summer, winter, and nesting habitat, I broke out my ancient telemetry equipment and did some radio-tracking. By braving the treacherous terrain to follow me, the group had the privilege of seeing a Blanding's turtle basking by a small brook, which allowed several folks to take some stunning photographs.

After seeing a giant garter snake on the path back to the abandoned railway, the trained eyes of the naturalists returned to the skies, where they spotted a swarm of at least a dozen nighthawks. Walking back to the vehicles, the group identified many other bird species in the woods, but the biggest treat was the Barred Owl we not only heard hooting, but also saw perched in an old gnarly tree. I thanked the naturalists for teaching me as much as I had taught them, and I passed out several posters and newsletters I had developed for the promotion of stewardship. The naturalists had the option of heading to Keji that evening to help with the nest monitoring program, but with such an exciting day behind them, most likely returned home to rest and share what they had learned.

Brennan is a masters student of Tom Herman's at Acadia University

TWO BNS FIELD TRIP REPORTS
by Ruth and Reg Newell

Poplar Grove

June 12, 2005 – Over twenty people eagerly braved the mosquitoes to view both Yellow (*Cypripedium calceolus*) and Ram's-head (*Cypripedium arietinum*) Lady's-slippers in flower in Poplar Grove. After a short fifteen to twenty minute trek along open, bobolink-inhabited hay fields and subsequently along an old woods road through coniferous and mixed woodlands, we were rewarded with the delightful sight of numerous clumps of Yellow Lady's-slipper scattered throughout the damp woodland. Although they were slightly past their flowering peak, they were still very attractive and photogenic. A short distance further we were able to locate a small number of the extremely rare and endangered Ram's-head Lady's-slipper. These plants were restricted to the drier woodland ridges, whereas the Yellows were found in both damp and dry habitats. We were fortunate to find the Ram's-head also in flower. Though not as showy from a distance as the Yellows, on closer inspection the small flowers of the Ram's-heads possess an exquisite beauty of their own.

Other plants of interest observed during this walk were several varieties of ferns as well as Canada Soapberry (*Shepherdia canadensis*). This is a distinctive shrub with opposite leaves covered in silvery scales on their lower surface. It is generally restricted to gypsum areas on mainland Nova Scotia and to coastal regions of Cape Breton Island within reach of the salt spray. It was, all in all, an enjoyable trip whereby we able to observe and appreciate several of Nova Scotia's rarer plant species.

Black Rock

August 7 – Eight of us set out to explore a section of the recently created hiking trail system set up by the community of Black Rock. The well-laid-out trails meander through woodland at various stages of succession, allowing us to experience a wide range of plant species. The following is a very abbreviated version of the full list of plants

enjoyed during this hike: Christmas Fern (*Polystichum acrostichoides*), Northern Beech Fern (*Phegopteris connectilis*), Clintonia (*Clintonia borealis*), Bunchberry (*Cornus canadensis*), several species of violets (*Viola* spp.), American Brooklime (*Veronica americana*), Columbine (*Aquilegia vulgaris*), Common Speedwell (*Veronica officinalis*), Ostrich Fern (*Matteucia struthiopteris*), Northern Green Bog-orchid (*Platanthera hyperborea*), Wild Raspberry (*Rubus strigosus*), mountain ash (*Sorbus* sp.), Wild Sarsaparilla (*Aralia nudicaulis*), Fly Honeysuckle (*Lonicera canadensis*), Red Trillium (*Trillium erectum*), Alternate-leaved Dogwood (*Cornus alternifolia*), Red Elderberry (*Sambucus racemosa*), a species of shinleaf (*Pyrola* sp.).

We were entertained and scolded by a Goshawk at one point along the trail. We enjoyed lunch on the beach before turning back.

BNS FIELD TRIP REPORT
Mars at its Best
by Roy Bishop

October 29 and 30, 2005 – On the first evening (Saturday the 29th) four people (plus myself) arrived at the old parking lot of the Grand Pre National Historic Site. This was a Murphy’s Law evening: too cloudy to do any useful observing, but with an occasional small hole through the clouds suggesting that the sky might just possibly become clear. As I feared, Murphy prevailed and all we were able to see was Mars, but dimly, and then only for a few minutes. Terrible “transparency” (clear air), but the “seeing” (the steadiness of the air, and hence the detail that could be seen on the surface of Mars) was quite good.

On Sunday the 30th the sky at Grand Pre was dark and clear (good transparency) up until about midnight, when a few clouds appeared. However, Murphy had not given up completely, for the seeing was not the best, which blurred all but coarse details visible on Mars. Nevertheless, it was a special night for observing the red planet because not for another 15 years would Mars be as close to Earth (at 46 percent of the Sun-Earth distance).

A couple of dozen people dropped by to view the sky. I especially wish to thank those who brought telescopes: Robert Clark, Mark Dryden, Pat Kelly, Dave Parsons, and Sherman Williams (Did I overlook anyone? It was dark!). There were at least seven telescopes, ranging from a vintage 60 mm Unitron refractor to a couple of 10-inch (254 mm) Newtonians.

Beside Mars, some of the other targets observed that second evening were Uranus, the Pleiades, the Crab Nebula, the double cluster in Perseus, Castor (resolved), the Andromeda galaxy and its companions, and the star clusters NGC 2158, M35, and M37. Several meteors were seen, plus a few mysterious flashes that lit the sky.

Reports the next day confirmed that the flashes had been caused by fireballs – very bright meteors – but they occurred low near the horizon and from our location were hidden behind buildings beside the parking lot (Murphy again!). Among these reports was one from NASA. Jean Timpa commented: “[The fireball explanation of the flashes] probably makes more sense than the arrival of the Great Pumpkin out of Charlie Brown’s pumpkin patch, getting ready for Halloween Eve the next night!”

BNS FIELD TRIP REPORT
Looking at Minerals
by Rob Raeside

On Saturday, January 14, in anticipation of deep snow and cold winds, the Blomidon Naturalists planned a field trip to the halls and labs of the geology department at Acadia University. Little did they realize the temperatures would be about the same inside as outside. However, about 28 members pursued their goal, and moved indoors to examine mineral collections in the university. They were met by Professors Jeanette Roelofsen and Rob Raeside who, assisted by honours students Dave Lowe and Heather Wolczanski, introduced them to the intriguing world of minerals.

After girding themselves with coffee or juice and brownies, the members were introduced by Jeanette to the techniques of mineral identification in

hand samples. Properties such as colour, lustre (the way that light reflects off of the surface of the mineral – e.g., metallic like a metal or vitreous like glass), streak (colour of powdered mineral on unglazed porcelain), hardness (using objects of specific hardness – a penny, knife, glass, etc. – to estimate the relative hardness of a mineral compared to those on the Moh’s Hardness Scale), cleavage (the way the mineral breaks along specific planes), and various other physical properties, such as reaction with acid (10 percent dilute hydrochloric acid, or vinegar as a substitute), specific gravity (the relative “weight” of the mineral specimen compared to the average), magnetism (the attraction of a magnet to a sample), and other less obvious properties (like striations on plagioclase feldspar). After this brief introduction, the members were able to test their identification skills on a number of minerals located around the room. As the number of members present kept growing through the first hour, soon exceeding the capacity of the microscope lab, the group split up with half taking a tour with Heather to examine the permanent mineral displays in the Geology Department, the other half going with Rob to view minerals in the microscope. Later, the two groups switched and Dave took the other half around to examine the displays.

Rob first introduced them to the ability of many minerals to split light into two polarized rays, using a rhomb of calcite, and then to the properties of polarized light, using sheets of Polaroid and the famous “scotchtapeite.” This rare “mineral” (particularly the cheapest dollar-store variety) possesses a crystalline structure that splits light into polarized rays, which, when viewed between two sheets of Polaroid, recombine to transmit only certain wavelengths. Participants experimented with multiple strips of scotchtapeite, producing interesting interference colour effects. They then turned to the microscopes, which also use polarized light and viewed the same effects with a sample of an olivine-rock, which came from one of the Hawaiian volcanoes. The effects were described as “kaleidoscopic” or “like stained glass windows.”

With a good understanding of the optics of polarizing light, the group then proceeded to examine local rocks in the microscope, starting with the basalt of the North Mountain, which in the microscope can be seen to be composed of tightly interlocking crystals of feldspar and pyroxene. The bright red rocks of the Wolfville sandstone turned out to be surprisingly dull in the microscope, the quartz crystals showing only black and white

interference colours; however, under ordinary viewing conditions, they revealed the original edges of sand grains that blew around in the Triassic deserts of the Valley area as fine reddish iron-stained lines. The next rock examined was a piece of granite from the South Mountain, in which feldspar, quartz, and biotite mica could be seen. The biotite contained dark spots around tiny radioactive minerals, the product of 372 million years of radiation destroying the crystal structure. Finally they examined a hornfels – the product of the baking of slate near Black River Lake by the heat of the intruding granite magma, where half a million years of 600 degree heat caused the growth of long grains of andalusite, which in cross-section displayed fine cross patterns.

Rob Raeside is a professor of geology at Acadia University

BNS FIELD TRIP REPORT

Bringing the Solar System to Life

by Harold Forsyth

March 11, 2006 – We planned this field trip for something to do inside during typical March weather, but it turned out to be a lovely spring-like day. Nevertheless, about 28 people turned up to get a view of the solar system, and it was nice to see a number of young people present.

Svetlana Barkanova explained how the solar system was formed from a cloud of gas and dust, which collapsed from gravity into a spinning disc with the sun in the centre. Outwards from the sun are four terrestrial planets, an asteroid belt, and then four gaseous planets. The ninth planet, Pluto, and its two satellites have a unique orbit, and, although it is usually considered the most distant planet, it actually comes closer than Neptune for 20 years of its 249-year orbit. Beyond Neptune is the Kuiper belt, which consists of a field of icy objects that never formed into planets. Occasionally the gravity from Neptune pulls one of these icy objects, a comet, into a closer encounter with the sun. Pluto is considered by some astronomers to be a part of the Kuiper belt. Even farther into space is the Oort cloud, an immense spherical cloud surrounding the entire planetary system. It consists of billions of comets, and its axis is so large it reaches

half way to the closest star, Proximus Centauri, four light-years away. The Oort cloud is another source of comets that are pulled into shorter orbits by the gravity of planets or passing stars.

Svetlana explained the Titius-Bode Rule, a simple mathematical formula that predicts the distance of the planetary orbits from the Sun. No one can explain why the formula works, but it predicts a planet between Mars and Saturn where the asteroid belt is located.

Svetlana used some interesting software to explain the eclipses of the Sun and Moon. The seasons were described to be a result of the tilt of the Earth in its annual rotation about the Sun. Summer is not warmer because we are closer to the Sun, but because of the axial tilt that inclines the northern hemisphere toward the Sun, giving more sunlight.

You can find more information about our solar system on the Internet by going to [Interactive Solar System](#), [Views of the Solar System](#), or [Celestia](#). This field trip was truly an out of this world experience.

NATURAL HISTORY

The Saros and the Exeligmos

by Roy Bishop

On March 7, 1970, four years before the Blomidon Naturalists Society was formed, a rare total solar eclipse swept northeastward along the Atlantic coast of Nova Scotia. Most of the province was under heavy cloud that day, but two future BNS presidents, Sherman Williams and I, saw the eclipse in a deep-blue sky at White Point Beach, near Liverpool. As daylight rapidly faded in the seconds before totality, prominent shadow bands fluttered all around us. Then a deep twilight descended as an inky-black Moon suspended in front of a rayed, pure-white solar corona appeared in the heavens. In that pristine setting, with only a few people present, with ocean waves rolling in on the beach and an orange sunset-like glow circling the horizon, we were awestruck. It was the most spectacular natural event we had ever seen.

Eighteen years and 11 days later, on March 18, 1988, a total solar eclipse having a track with a similar shape and latitude range occurred one-third of the world westward, over the Pacific Ocean off the coast of Japan.

Eighteen years and 11 days after that, on March 29, 2006, a total solar eclipse having a track with a similar shape and latitude range occurred another one-third of the world westward, across Africa and the eastern Mediterranean. This spring several Canadians travelled to Libya, the Mediterranean, and Turkey to view that eclipse.

Noting this pattern, you might predict that after another 18 years and 11 days, on April 9, 2024, a total solar eclipse having a track with a similar shape and latitude range will occur yet another one-third of the world westward, placing it back in Nova Scotia. In making this prediction you would be using two famous astronomical time intervals: the Saros (18 years plus approximately 11 days) and the triple-Saros, or Exeligmos (54 years plus about one month). Your prediction would be surprisingly accurate, for on April 8, 2024, a total solar eclipse will sweep northeastward across central New Brunswick. That will be the next total solar eclipse visible from our area.

If I am still visiting this planet one Saros from now, on April 8, 2024, I shall be somewhere north of Fredericton so I can again stand in the umbra of the Moon and celebrate the memory of the White Point eclipse that Sherman and I experienced one Exeligmos earlier.

Perhaps I am being greedy in looking forward to the 2024 eclipse, for I am fortunate to have lived long enough to have experienced an Exeligmos: I saw (and remember) the solar eclipse of July 9, 1945, although it was only partial from Nova Scotia. One Exeligmos later I saw the eclipse of August 11, 1999. Again it was only partial from Nova Scotia, but this time I was in the path of totality on a ship south of Sable Island. An account of that eclipse appears in the November/December 1999 edition of *SkyNews*, the Canadian magazine of astronomy and stargazing.

Incidentally, the Saros, a time interval known since ancient times, is the result of a remarkable numerical commensurability between three lunar periods: the synodic month, the draconic month, and the anomalistic month. This is not the place to elaborate further, but if you would like

more information, see pages 106–108 of the 2006 edition of the Observer's Handbook of The Royal Astronomical Society of Canada.

SEEN IN THE WILD

Winter Birds 2005-06

by Mike McCall

Environment Canada and other agencies that keep track of these things tell us that nationally the past winter was 4°C above normal, but birders who were seeing out-of-season birds knew this without being told. There were others of course, but Baltimore Orioles and catbirds were not uncommon in our area in December and January, and reports of cardinals and robins came in all winter. In two cases of which I'm aware, weakened orioles were taken in, housed, and fed with the intention of keeping them fit until they could be safely released in warmer weather. I don't know anyone who would offer this valet parking to a starling, so what is behind the impulse? Have we been trained to see the oriole as beautiful and therefore worth saving, and the starling as an aggressive pest – even though its colours can be very spectacular? By the way, Gordon Sinclair, Canada's late iconoclast (or loudmouth, take your pick) held that the starling should be adopted as Canada's national bird because of its ingenuity, energy, enterprise, and determination.

Some warblers were also induced to hang around: A Cape May appeared in Kentville Dec 13, a Bay-breasted was seen in Windsor Jan 15, and a Yellow-breasted Chat cheered several Wolfville residents on Feb 4. Some birds were seen in large flocks, as opposed to singly. Merritt Gibson reported a Feb 18 feeding frenzy in his yard by about 2,000 Bohemian Waxwings, and Judy Tufts recorded the presence of 450–500 in Wolfville Feb 9. Large flocks of redpolls were also about; up to 25 members of a flock of 80–100 were frequently pasted to my niger feeder in February and March. Single Sharp-shinned Hawks were also in good supply around the province; “mine” set up shop in late



BOHEMIAN
WAXWING

November, pays regular feeder calls, and on several occasions has posed on a fencepost near the house. In fact, it made a pass at my feeder just now as I typed this line on Apr 4.

John Belbin and others spent some cold winter days scanning Fundy at Port George and Harbourville. The usual water birds were about in good numbers, but John and company were very pleased at the presence of a King Eider on several occasions (a lifer for some) and as well enjoyed the Harlequin Ducks [see report p. 26]. Patrick Kelly identified a Red Phalarope at Windsor sewage ponds on Dec 13.



Those harbingers of spring, grackles and robins, began drifting into the region in the first and second weeks of March: Jim Wolford reported grackles and Red-winged Blackbird on Mar 15, but there were also reports from all over the province. And confirming that spring is here to stay, the Thextons reported two Killdeer near Wolfville on Mar 22.

And finally, on the reporting front, “my” woodcock has returned to its usual haunt about 200 m from the house. I’ve never seen it in 10 years, but its evening “peent” has been heard this year since Apr 2.



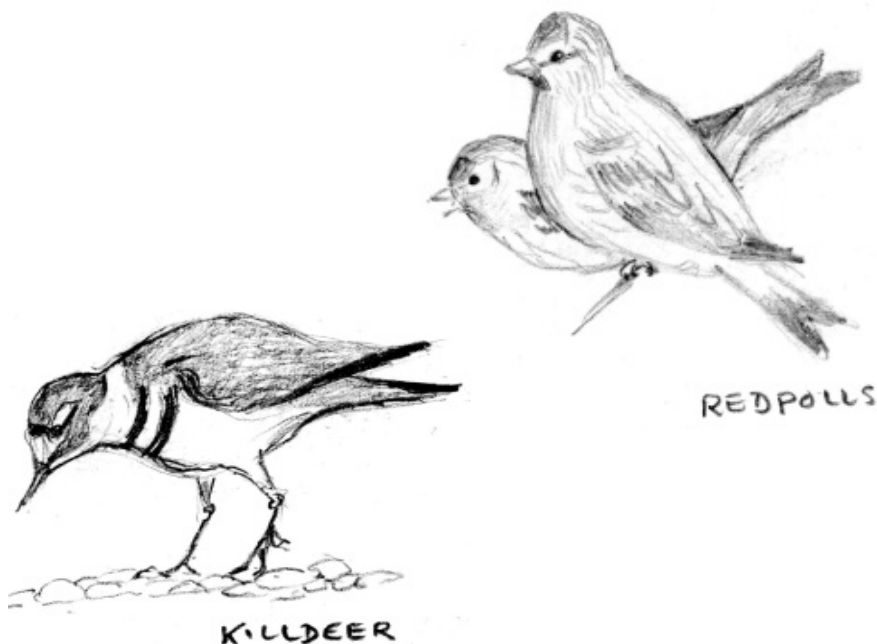
Other Stuff

The search for the Ivory-billed Woodpecker cranked into high gear a bit more than a year ago with a reported sighting in Arkansas by a team from Cornell – a sighting that, not surprisingly, is being questioned. A second sighting, in Mississippi is also being reported. E-mails (unlike the Ivory-billeds) were flying around in great numbers as believers and non-believers crossed swords – or bills. Feathers are being fluffed and aggressive postures taken as claimants and disbelievers dis one another. To watch the fun, Google “Ivory-billed Woodpecker” and visit a few sites. One opportunistic “naturalist” will also sell you a print of a friend’s painting of his sighting of an Ivory-billed, which strikes me

as being as related to the real world as Tom Sawyer's fence. The only sure way to confirm the sighting is do what Audubon did to so many of these birds before the camera came on the scene – shoot one. But that seems like a dumb idea.

Winds farms have attracted attention again, not necessarily because they offer the possibility of a reduction in use of fossil fuels, which surely must be a good thing, but because of a perception that they kill a lot of birds. True, wind farms using large horizontal axis wind turbines were built in the Altamont Pass in California in the '80s, and because virtually no research into bird/wind turbine interaction had been done it was a disaster – for the birds. Since then, however, studies have shown it is possible to locate wind farms away from areas of heavy avian activity, both migratory and resident. Clarence Stevens of Halifax, who has worked as an environmental consultant, tells us that outside California modern wind farms in the U.S. kill an average of 1.8 birds a year – much less than the number killed by deforestation, high-rise, power lines, traffic, predation, and phenomena such as hurricanes and spring blizzards.

I wish you all excellent spring and summer birding.



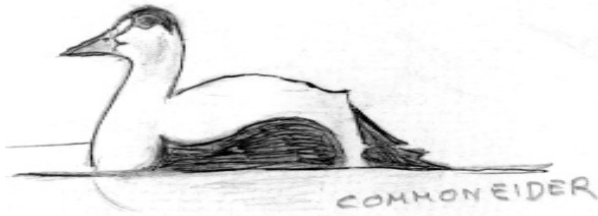
SEEN IN THE WILD
Of Kings and Harlequins
by John Belbin, Kingston

[Some time this winter] Pat Giffin clearly saw two male King Eiders at Port George, something we have suspected for some time. As this seemed to be an ideal viewing day, I couldn't wait to try my luck and rushed over there this afternoon as soon as I had finished my science-fair judging responsibilities. What a great day, made better by the fact that at first there was nothing to see at Margaretsville nor at the Ducks Unlimited property. However, Port George more than made up for it. The sea was quite calm, incredibly blue, and the viewing excellent. Even better, the main eider flock was close to shore at the Cottage Cove end of the strip.

In a group of 150 or so Common Eiders and maybe 30 Black Scoters a single King Eider was feeding. It is a highly distinctive bird once you have identified it and well deserves the nickname "headless duck." Under these conditions that is exactly what you first see, due to the blue coloration of the head. The bright light made that solid orange beak almost glow. I rapidly noticed another way of identifying it. A single Herring Gull was with the flock and trying to steal food from the Eiders after they surfaced from a dive. It concentrated on the smaller King Eider to the point where it lost about 50 percent of whatever it found while I was watching. The gull only made token attempts to raid the other eiders and did not bother the Black Scoters at all.



I moved a few metres and located another small flock of eiders, about eight birds. Here was another King Eider glowing in the sun. Here too a single Herring Gull was paying attention only to the King and not the other birds. I could easily see both Kings at the same time.



There were also good numbers of Surf Scoters and a few White-winged Scoters. Several Common Loons were in breeding plumage. There are still 20 or 30 Long-tailed Ducks about, plus a few grebes and Red-breasted Mergansers.

Moving back to the lighthouse area of Port George I was surprised to see the three “isolationist” Harlequin Ducks quite far out from the shore and chasing each other about. Going to the corner where the stream enters I found the main group close to shore – this time there were ten of them. Thirteen Harlequins is quite a number for this area. Things are definitely looking up.

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SEEN IN THE WILD
High Tide
by Sherman Williams

February 1, 2006 – There was an exceptionally high tide along the Minas Basin today. Around 3 p.m. it reached near the top of the dykes at Avonport Beach and flowed over the top along one stretch of dike, washing away the snow and combing the grass down the dike’s landward slope. The tremendous wind-driven waves dislodged rocks and boulders from the seaward side of the dike and flung them unto the top of the dike, causing erosion. This probably was the situation along other stretches of dike openly exposed to the onslaught of wind and wave.

The waves were wild – rolling in, crashing metres high against the shoreline at Avonport Beach and Horton Bluff, and flinging chocolate-coloured water, mud, and spray up over 15-m to 18-m cliffs. Without the winter-ice buffer that we usually have along the shoreline this time of the year, erosion was probably extensive.

Last time I witnessed a wild scene like this along the Minas Basin was Feb 2, 1976, the Groundhog Day storm.

NATURE
The Storm of February 1, 2006
by Roy Bishop

On the afternoon of February 1, 2006, an unusual winter storm caused much damage to the southern shoreline of Minas Basin [as observed by Sherman Williams in the report above]. Five natural factors coincided to produce the damage (note that the first three – cited in the 2006 BNS calendar – were necessary, but not sufficient, to cause havoc):

1. New Moon occurred three days earlier.
2. The Moon was closest to Earth in its orbit two days earlier. In combination with factor 1 this resulted in extra-large perigean spring tides, and the two-day delay allowed these tides to reach their peak range on February 1.

3. High tide occurred at 3 p.m.

4. One day earlier an intense low-pressure system formed off Cape Hatteras. By 3 p.m. on February 1 this system was located near Sable Island, resulting in gale-force north winds sweeping across Minas Basin.

5. As a result of a relatively warm winter, the wet ground was not frozen and there was no ice in Minas Basin. Frozen earth resists erosion and ice blocks dampen wave action. Neither protection existed on February 1.

Such a five-fold coincidence is rare, which is why the damage sustained to the shorelines at Evangeline Beach and Avonport Beach that wild afternoon was the worst in many years. The high water level allowed huge waves to reach the banks of the shore before breaking. Most stairways to the beaches were smashed or carried away, breakwaters were damaged, large rocks and timbers were tossed many metres across cottage lawns, and in several places large chunks of shoreline vanished. The property damage at Evangeline Beach alone amounted to tens of thousands of dollars.

Someday similar coincidences will occur, but with one difference: the intense low pressure system will track further west, northward up the coast of Maine and across New Brunswick. The hurricane-force south wind combined with the low pressure system sliding northward in step with the advancing tide will raise the perigeon-spring high tide in the entire upper Bay of Fundy sufficiently to top many dikes. Much land will be flooded, including parts of Wolfville and Truro. When this will occur is as unpredictable as the weather, because it will be the intensity, track, and timing of the storm system that is crucial, just as it was for the Saxby Gale of October 5, 1869, or for the great storm of November 3, 1759.



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MEMBERS IN THE NEWS

Awards

Jim Wolford has received the **Colin Stewart Conservation Award** for significant conservation efforts in Nova Scotia. The annual award was created by the Halifax Field Naturalists in memory of Colin Stewart, a long time member of HFN and ardent conservationist. The HFN membership made the presentation of the award to Jim at its annual general meeting in March 2006.

The award recognizes individuals or groups who have made an outstanding contribution to conservation in Nova Scotia. Such contribution is characterized by undertaking and completing challenging conservation tasks of provincial significance in Nova Scotia or by outstanding efforts over an extended period of time that yield significant progress toward the completion of a conservation task of provincial significance.

As most of you will know, Jim has worked tirelessly for many years to promote the natural history of Nova Scotia. He is the complete naturalist and always the willing volunteer when it comes to matters of conservation and natural history. He is always curious about what's going on around him, and he enjoys sharing his hard-earned knowledge with anyone who wants it.

The Nova Scotia Bird Society **Puffin of the Year Award** was instituted in 1972 by then-president Eric Cooke for outstanding contributions to the Bird Society. Since then the conditions have changed slightly to include outstanding contributions to birds or birding in Nova Scotia. The list of awardees is long and prestigious, and this year's winner is well-deserving of a place among them.

Judy Tufts was born in Peru and spent her early childhood there. When she was nine her father, a British engineer, brought his family back to England, where they lived on a farm in the beautiful countryside of Essex. She later met a handsome young Canadian, stationed in France

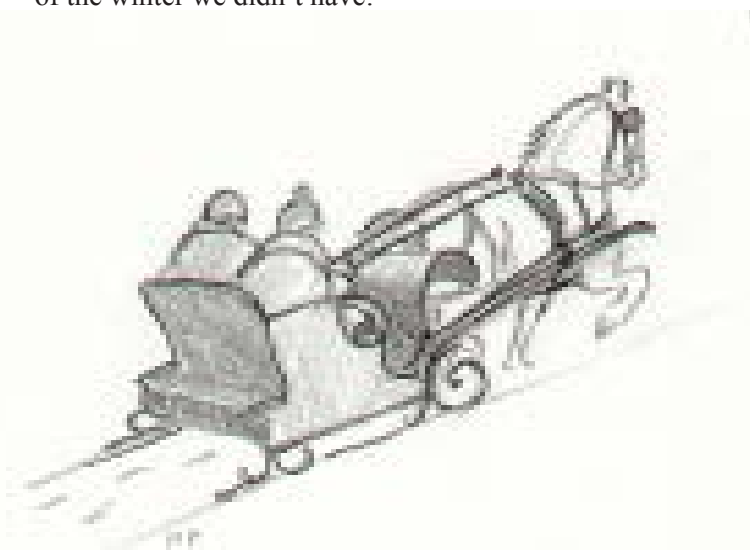
with the Royal Canadian Air Force, while he was on leave in London. They married and the couple returned to Canada, where they lived for a time in Greenwood, Nova Scotia.

Judy's husband had a cousin, one Robie Tufts, who visited them often and encouraged them to take up birding. Her father had also been a longtime birdwatcher. One of the first field trips they went on was led by Richard Stern, a good friend of theirs, and a past president of the Bird Society. Since they both love nature, it wasn't long before birding became far more than just a pastime. In due course Judy led local field trips herself. She and her husband have travelled extensively to various countries around the world and kept accurate records of the birds they saw en route.

About ten years ago, Judy took over the coordination of the [Nova Scotia] North American Migration Count and built it into our largest scientific database of migrating birds passing through the province of Nova Scotia.

adapted from a report by Suzanne Borkowski in Nova Scotia Birds Winter 2006

Mary Pratt, our indefatigable illustrator, was awarded a **life membership** to the Blomidon Naturalists Society. A proper biography for Mary will appear in the summer issue. Meanwhile, here's a drawing to remind us of the winter we didn't have:



Eastern Annapolis Valley Weather

Winter 2005-06

by Larry Bogan, Cambridge Station, NS

	Mean daily max. temp (deg.C)	Mean daily min. temp. (deg.C)	Mean daily temp. (deg.C)	Snow (cm)	Total precip. (mm)	Bright sunshine (h)
December (44 yr. average)	1.9 (1.6)	-5.2 (-6.1)	-1.6 (-2.2)	66 (56)	120 (126)	61 (60)
January (44 yr. average)	2.7 (-1.4)	-4.6 (-9.8)	-0.9 (-5.6)	31 (70)	74 (117)	64 (76)
February (44 yr. average)	-0.3 (-0.9)	-9.4 (-9.5)	-4.8 (-5.2)	20 (59)	49 (102)	85 (101)
Season (44 yr. average)	1.5 (-0.2)	-6.3 (-8.4)	-2.4 (-4.3)	117 (185)	243 (345)	210 (237)

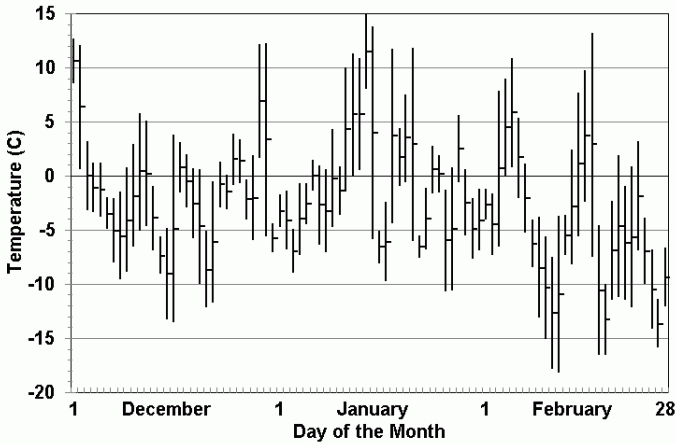
Source: Food & Horticultural Research Centre, Kentville, NS.

What a warm winter! The whole season was 1.9°C above the long-term average, mainly because January was so warm. The mean temperature in January was a whopping 4.7°C above average. My house did not get as much solar heating as usual this winter due to fewer bright sunshine hours and 10 percent fewer heating degree days than average; on the other hand my wood pile did not go down as fast as usual either. As a result of the high temperatures, we had less snow cover than usual, mostly in January.

Temperatures

The coldest part of the winter usually occurs at the end of January. This year the minimum temperatures in December and February were lower than those in January. The warmest period of the winter occurred January 11–15, when each day hit a maximum of 10°C or higher. January was warmer than December this winter. A January thaw is common, but we had one the whole month. February was nearly a normal month with respect to temperatures.

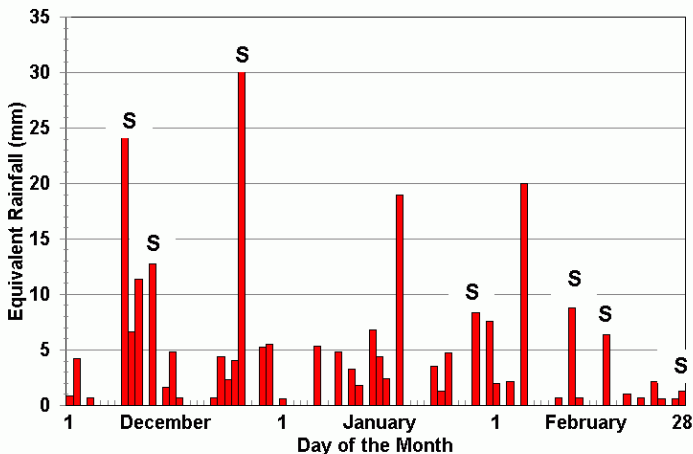
Max, Min, Mean Daily Temperature
Winter 2005-6 Kentville, N.S.



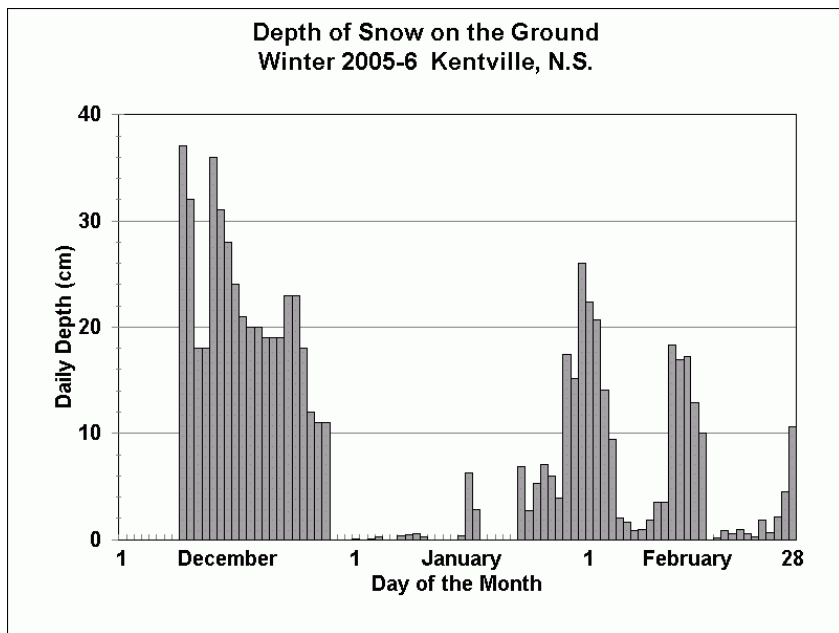
Precipitation

Half of all the snowfall and precipitation occurred in December this winter. January and February were much drier than usual, and as a result the season had only 70 percent of its average precipitation and only 63 percent of its average snowfall. The first snowfall, on the 9th of December, disappeared by the 28th. We had negligible snow on the ground from then

Total Daily Precipitation
Winter 2005-6 Kentville, N.S.



to January 22. Only on four days in early December did we have a foot or more snow on the ground.



Despite the lower-than-normal precipitation, it was a wet winter because there were few dry periods – none longer than four days without precipitation – and there were only four such periods during the winter. I have included a chart of the precipitation to illustrate the wetness (see p. 33). The S on the chart indicates that the precipitation was in the form of snow. If you want to estimate the snowfall, it is approximately one centimetre for each millimetre of precipitation.

Sunshine

Despite December’s being the snowiest of the season, it was normal with respect to bright sunshine hours. Both January and February were cloudier than usual, and the season ended with 88 percent of its average sunniness. Winter in the Valley is not very sunny in normal years, and not to get even the usual amount makes for a more “depressing” winter. But let’s cheer up; spring will be here by the time you read this.

What's In The Sky?

by Roy Bishop

New Moon: April 27, May 27, June 25, July 25

Full Moon: April 13, May 13, June 11, July 11

Summer begins on Wednesday, June 21, at 09:26 ADT

The Naked-eye Planets

Mercury is visible during June, very low in the northwest evening twilight about 10:15 p.m., below the stars Pollux and Castor. On the evenings of June 27 and 28, Mercury, Saturn, Mars, and the slender crescent Moon lie within 16 degrees of one another (look about 10 p.m.). On June 27 Mercury is below the Moon, with Saturn and Mars (in that order) to the left of the Moon. On June 28 Mars is below the Moon with Saturn and Mercury (in that order) to the lower right of the Moon.

Venus continues to be visible low in the eastern morning twilight

Mars was at opposition last November 7. Since then it has been fading in brightness and shrinking in size as seen in a telescope. This spring Mars is in the evening western sky as it moves eastward through the constellations Gemini and Cancer. By late July it vanishes into the evening twilight prior to passing behind the Sun in October.

Jupiter is very bright but low in the southeastern sky on April evenings. It is at opposition on May 4 when it is in the sky all night long, rising in the southeast as darkness falls and setting in the southwest with the dawn. May is the best time during 2006 to view Jupiter with a telescope.

Saturn was at opposition on January 27, so it is still well-placed in the western evening sky during April, but during May and June it drops lower toward the evening twilight and vanishes from sight by early July.

The Brightest Star

If asked "What is the brightest star?" people who are not familiar with the sky will sometimes answer "the North Star." Those who know the sky usually answer "Sirius," though a few will say "the Sun," or will ask:

“What do you mean: brightest appearing, or intrinsically the brightest?”

The brightest appearing star is the Sun. Because of its closeness, our Sun is so overwhelmingly brighter than all the other stars that it was only within the past century that its nature as a somewhat ordinary star was fully realized. Even today most people do not regard the Sun as a star. Their impression goes something like this: “That’s the Sun; the stars are in the night sky.” Even authors of astronomy textbooks sometimes fail to include the Sun in lists of the brightest appearing stars! A century and a half ago the naturalist-philosopher Henry David Thoreau ended his classic book *Walden* with the concise, perceptive statement, “The Sun is but a morning star.”

Sirius is second in a list of the brightest appearing stars, followed by Canopus, a star in the southern sky that cannot be seen from the latitude of Nova Scotia. Sirius, the bright star flashing southeast of Orion on a winter evening, appears 13 billion times dimmer than our Sun not because it is intrinsically dimmer than our star, but because it is much further away: nine light-years compared to eight light-minutes for the Sun.

In terms of intrinsic brightness, Sirius is actually 20 times brighter than the Sun. If Sirius were to replace the Sun, Earth’s atmosphere would be swept away, the oceans would vaporize, and mountains would melt! Even so, Sirius is not intrinsically the brightest star. Because of the immense number of stars, the vast majority of which are not individually visible, the task of locating the intrinsically brightest star is, in practice, impossible.

Furthermore, even if you could identify what you think is the intrinsically brightest star, the answer would change with time because stars do not last forever. Moreover, you could not even give an answer valid for a certain moment in time because the answer would depend upon where you were in space. Because of the travel time of light, the distribution in time of the visible stars depends upon the location of the observer. A star that is blazing brightly for you may not yet have formed for an observer at another location in our galaxy, or it may already have expired for an observer at a third location.

Among the brighter appearing stars in Earth’s night sky, one that is certainly in the ranks of the intrinsically brightest stars is Deneb, the star

at the top of the Northern Cross (the tail of Cygnus, the swan). Deneb is actually 80,000 times brighter than the Sun. The reason it appears no brighter than several other stars in the sky is its immense distance, 1,500 light-years. We therefore see Deneb as it was about the year 500 AD, but because 1,500 years is a very short interval in the life of a star, it is virtually certain that Deneb is still shining brightly today, even though humans will not see how Deneb looks today until about the year 3500. On May evenings, Deneb may be seen low in the northeast. Together with the nearby stars Vega and Altair (25 and 17 light-years distant, respectively), Deneb forms the asterism known as the Summer Triangle.

If one includes stars that flare up and become novas or supernovas for brief intervals (days or weeks), then even Deneb pales in comparison. A supernova can outshine Deneb by 100,000 times, or our Sun by 10 billion times, brighter than an entire galaxy!

The question “What is the brightest star?” needs to be expressed more carefully.



Blomidon Naturalists Society

2006 Membership Fees and Publications Prices

Each member of the Blomidon Naturalists Society receives four issues of the BNS newsletter annually. Because BNS is a registered charity, the society issues receipts for all donations. The membership fee itself is not tax deductible. Members may also join the Federation of Nova Scotia Naturalists through BNS and will receive FNSN News, the federation's newsletter. FNSN membership is not tax deductible.

Please send cheques or money orders in payment of membership fees and for publication purchases to

Ed Sulis
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No.	Membership classification	Price	Total
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_____	Family (number of family members _____)	18.00	\$ _____
_____	Junior (under 16 years)	1.00	\$ _____
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Sources of Local Natural History

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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

