



Blomidon Naturalists Society

Winter 2006 – Volume 33 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

Past president	Liz Vermeulen	681-0061
President	John Harwood	582-3320
Vice-president	Richard Stern	678-1975
Treasurer	Ed Sulis	678-4609
Secretary	Helen Archibald	582-1561

Directors

John Belbin	765-3811
Harold Forsyth	542-5983
Glenys Gibson	582-1273
Jean Gibson Collins	678-4725
Patrick Kelly	798-3329
Jean Timpa	542-5678

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>

Contents – Vol. 33, No. 4

- 4 Editorial
- 6 BNS meetings and field trips
- 12 Executive notes *John Harwood*
- 14 Style guide *Doug Linzey*
- 16 Book report *Mike McCall*
- 18 Field trip reports
- 30 Fall birds *Mike McCall*
- 37 Re-counting birds *Judy Tufts*
- 40 Fall weather *Larry Bogan*
- 42 What's in the sky? *Roy Bishop*

Illustrations by Mary Pratt (pp. 11, 22, 30, 31, 32, 36, 37, 45)

Cover drawing by Tristan Cavanagh, drawing on p. 5 by Maggie Earle

The *Blomidon Naturalists Society Newsletter* is published quarterly – in March, June, October, and December – by the Blomidon Naturalists Society, PO Box 2350, Wolfville, NS B4P 2N5.

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

Spring, March 9, 2007

Editorial Board

Chair: Jean Timpa (902 542-5678)

Committee: Merritt Gibson, Sherman Williams, George Alliston

Production: Doug Linzey

Distribution: Bill and Brenda Thexton, Judy Tufts, Lorna Hart

Advertising: Larry Friedman (902 584-3844)

Articles may be reprinted with permission of the author or the editor. Credit the Blomidon Naturalists Society Newsletter. Unless otherwise stated, opinions are those of authors, not necessarily the Blomidon Naturalists Society.

Printed in Canada. For subscription information, see the membership fees form at the back of this newsletter. Please notify us at the above address if you change your address.

EDITORIAL
Happy New Year

Have great year's end celebrations, but please be creative, not necessarily traditional, and leave tiny elfin footprints. Always put Mother Nature on your list for the biggest and best gift. She surely needs and deserves such assistance. Not only should we be practising a new etiquette toward sustainability and stewardship, but also preaching it every chance we get. Be a tree hugger with pride!

Jean Timpa, editor

YOUTH
BNS Art and Nature Competition – Fall 2006
by John Harwood

The latest in our series of Art and Nature competitions was held at the Gaspereau Valley Elementary School with the kind permission of Principal Jean Corporon. Forty-seven children took part under the guidance of their teachers Cathy Townsend (primary and grade 1) and Elizabeth Balsor and Karen Duncan (grades 1 and 2). The artwork was great. It would appear that the children enjoyed the competition. The winners:

Primary/grade 1 – 1st: Meagan Keddy (\$15); 2nd: Emma Barr (\$10);
3rd: Evan Sweet (\$5)
Grade 2 – 1st: Brandon Hill (\$15); 2nd: Morgan Lightfoot (\$10);
3rd: Mackayla O'Brien (\$5)

The BNS newsletter prizes of \$10 each were awarded to Tristan Cavanagh for the cover of this edition and to Maggie Earle for her drawing (see p. 5, opposite). Each child who took part was awarded a certificate of participation. BNS would like to thank all the children, their teachers, and the principal for taking part. Well done to all.



PHILANTHROPY

Thank you, WACKY

WACKY is the Wolfville Area Cinema for Kids and Youth. We (BNS) are grateful recipients of \$314.80, collected this fall at a movie for families, children, and youth.

A small group of parents is dedicated to providing positive film experiences for young people. The Town of Wolfville obtained a grant to pay the costs at the Al Whittle Theatre, so the free-will offerings are collected and given to various charities. Out of the blue, BNS was asked to accept this fine donation, which we will put toward our youth nature camp programs.

If you have young family or grandchildren who might be interested in this cinema program, check with the Al Whittle Theatre for times and movie titles, before the fourth Saturday of the month. We've been told *Pipi Longstocking* is coming soon. Thanks so very much, WACKY, for thinking of the children yet again.

Blomidon Naturalists Society

Fall/Winter 2006

Meetings

Unless otherwise noted, all meetings are held at 7:30 p.m., usually on the third Monday of each month (note exception for December), 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, December 11, 2006 – A Birder’s Trip to Panama: Two Weeks in the Heat with Richard Stern. In March 2005, Richard went on a birding trip with a group of friends from Nova Scotia to two destinations in central Panama, the latest favourite destination for eco-tourists. He will present a talk and slide show of the natural wonders that the group encountered on the trip. (Please note the early date for this meeting – to avoid the Christmas rush.)

Monday, January 15, 2007 – Painting Nature. Twila Robar-DeCoste will explore the subject of nature illustration and the people who work in this art form, especially those who have influenced her work. She will bring samples of her own work, possibly including a work in progress, to help illustrate some of the topics she will be covering. Twila’s love of nature is the driving force in her creation of realistic paintings of many subjects: birds, butterflies, flowers, landscapes, and seascapes. She works in watercolour, acrylic, and ink. BNS members are likely to be familiar with her work, as she has provided the illustrations for sixteen books, including nine of Merritt Gibson’s nature books, the latest of which will be published this fall.

Monday, February 19, 2007 – 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 19, 2007 – Impressions of European Forests and Forestry: Reflections from a Special Journey, January to June 2005.

During the winter and spring of 2005, Peter Duinker travelled from the Mediterranean to the Arctic Circle through 15 countries of Western Europe. He rode his bicycle through ten of them. His main aim was to acquaint himself much better with Europe's forests and to learn about how Europeans see and use the concept of forest sustainability. Peter will present highlights of the journey using some of his best photos.

Monday, April 16, 2007 – To be announced.

Monday, May 21, 2007 – The Black River Hydro System and Fish Management Strategies, by Ken Meade, manager of environmental services at Nova Scotia Power Inc. The presentation will provide an overview of Nova Scotia Power's operations on the Gaspereau-Black River system and the specific measures that are in place for protection of multiple fish species and fish habitat. These include state-of-the-art monitoring facilities, a working relationship with the Department of Fisheries and Oceans for recovery of the endangered Atlantic salmon (specifically the Live Gene Banking program), and working with several groups including the Kings County Wildlife Association and the Gaspereau River Advisory Committee.

Field Trips

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

Saturday, December 16, 2006 – Wolfville Christmas Bird Count. The compiler for this year's count is Alison Bogan (902 678-0446, <alison@bogan.ca>). Everyone is encouraged to participate. Following the count, around 5 p.m., all participants are invited to Richard and Liz Stern's for a tally count and chowder/chili supper. The address is 317 Middle Dyke Road, north from the lights at the intersection of Belcher Street and the dyke road from New Minas, just before Chipmans Corner. Richard and

Liz can be reached at <rbstern@ns.sympatico.ca> or 678-1975. Judy Tufts (542-7800) is coordinating the potluck donations for the post-count party. If you are able to bring a donation of food, please contact her, so we won't end up too much of one thing and not enough of another. There is lots of room for parking, and everyone is welcome.

Saturday, December 23, 2006 – Kingston Christmas Bird Count. The compiler for this year is Wayne Neily (902 765-2455, <neilyornis@hotmail.com>). All are welcome to participate, but please contact the compiler as soon as possible so that you can be included in the planning.

Saturday, December 30, 2006 – West Hants Christmas Bird Count. The compiler for this year is Patrick Kelly (902 798-3329, <patrick.kelly@dal.ca>). All are welcome to participate, but please contact the compiler as soon as possible so that you can be included in the planning. Following the count, around 5 p.m., all participants are invited to Frank and Beth Woolaver's house near Brooklyn for a tally count and potluck supper.

Saturday, January 20, 2007 – Winter on Snowshoes I. 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, the 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 Wolfville 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, January 27, 2007 – Cross-country Skiing. David Dermott (902 542-2387) will lead a cross-country ski trip from Greenfield on top of Gaspereau Mountain. The trail is fairly easy, about 10 km, not too hilly and through open hardwoods. Pileated Woodpeckers are often seen in this area. Meet at the Wolfville waterfront at 9:30 a.m. The trek will be three to four hours, so bring a lunch. From the waterfront we will proceed up Gaspereau Avenue to the village of Gaspereau, turn right at the bridge,

go past Gaspereau School up the mountain to the end of the pavement at Peck Mountain Road, and park by the Greenfield cemetery. David says choosing a date for a ski trip several months in advance is like buying a lottery ticket: all you can do is hope for good snow conditions. Alternate date: Saturday, February 3.

Saturday and Sunday, January 27 and 28, 2007 – Eagle Watch Weekend I. The Sheffield Mills Community Hall will host its annual pancake and sausage breakfast with naturalist displays, films, and crafts. A short drive around the area will usually offer a sight of more than 100 Bald Eagles and many hawks. Maps and directions can be obtained at the hall. For more information contact Richard Hennigar at 902 582-3044 or <hennigar@xcountry.tv>.

Saturday and Sunday, February 3 and 4, 2007 – Eagle Watch Weekend II. A repeat at the Sheffield Mills Community Hall.

Saturday, February 10, 2007 – Winter on Snowshoes II. This will be either an alternate date (in case there is no snow on January 20) or a second trip, possibly to a different location. Soren Bondrup-Neilsen (902 582-3971) will lead the trip. Meet at the Wolfville 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 10 and 11, 2007 – Eagle Watch Weekend III. A repeat at the Sheffield Mills Community Hall, except the breakfast will be drinks and muffins.

Saturday, February 24, 2007 – 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 to this 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 3, 2007 – Herbarium and Greenhouse Tour. Jean Timpa (902 542-5678, <jtimpa@ns.sympatico.ca>), Ruth Newell, and Melanie Priesnitz will lead a tour of the herbarium and greenhouses at the K.C Irving Environmental Science Centre at Acadia University. Meet in the lobby at 1 p.m. The tour will start in the greenhouses, where the live material is, then continue on to the pressing and drying areas, the gluing room, the outer room of the herbarium where more procedures are performed on the plants, and finally the herbarium itself, where you will learn how it is set up and what is already in storage at Acadia. The university has the largest collection of Acadian forest plant material in the Maritimes.

Sunday, March 18, 2007 – Birding the Fundy Shore. Jim Wolford (902 542-9204, jimwolford@eastlink.ca) will lead a joint trip with the Nova Scotia Bird Society with stops along the Fundy shore and on to Annapolis Royal and the Digby ferry terminal. We will be looking for Harlequin and Long-tailed Ducks, scoters, mergansers, loons, grebes, Purple Sandpipers, murre, etc. Meet at 9 am at the Wolfville waterfront or 10 a.m. at Cottage Cove Provincial Picnic Park just west of Port George. Dress warmly and bring a lunch. No storm date.

Saturday, March 31, 2007 – Radiation in Nature. Dr. Svetlana Barkanova (<svetlana.barkanova@acadiau.ca>), from the Acadia University physics department, will look at radiation and radioactivity in nature. While most people associate radioactivity with nuclear power and nuclear weapons, there are many common sources of radiation all around us. In addition to some of the more unexpected sources, Nova Scotia is particularly prone to radon gas. Meet at 10 a.m. in Room 10 of the Huggins Science Hall at Acadia University.

Saturday, April 14, 2007 – Pond Life Through a Microscope. Todd Smith (<todd.smith@acadiau.ca>) and Helene D'Entremont of the Acadia University biology department will lead a popular indoor field trip to observe the fascinating and incredible diversity of living organisms found in pond water. Individual microscopes and one connected to a television set will be set up in a lab in the Patterson Hall, the biology building, from 1 p.m. to 3 p.m. You can expect to see representatives from many phyla, including bacteria, algae, diatoms, ciliates, flagellates, hydras, flatworms, roundworms, and rotifers. Meet at Patterson Hall.

Sunday, April 29, 2007 – Early Spring Birds. Join Jim Wolford (902 542-9204. <jimwolford@eastlink.ca>) on a joint trip with the Nova Scotia Bird Society pond hopping for ducks, early migrants, and possibly Barred Owls in the Wolfville area. Meet at the Wolfville waterfront at 10 a.m. Dress warmly and bring a lunch.

SEEN IN THE BUILDING

Environmental Christmas Tree

by Melanie Priesnitz, Harriet Irving Botanical Gardens

Friends of the Harriet Irving Botanical Gardens have been working for the past month on creating natural Christmas ornaments for the KC Irving Environmental Science Centre tree. They, of course, were careful not to over-harvest or gather any rare species while collecting materials. They even managed to find some great uses for some of our invasives, including Multiflora Rose and milkweed.



Hanging proudly on the tree in the main lobby this year you'll find a Christmas slug with a milkweed body, rosehip eyes, and an acorn hat; stars made out of milkweed pods; wreaths of Red Osier and Virginia Creeper; strings of rosehips; milkweed birds sitting in nests of moss; critters made of pinecones; and Sensitive Fern fronds adorned with glitter.

The experience was a great one for the volunteers and has provided the public with some new ideas on how to make their holiday season a more natural one.

EXECUTIVE NOTES
A Good Year for Us
by **John Harwood, president BNS**

When you opened this newsletter, you probably glanced at page 2 but didn't bother to read it. The objectives of the society are taken from the constitution, and I don't suppose they have changed since the start. The list of the executive is not an eye-catcher either. Even if you scanned the list you could be excused for thinking that it is same as last time. Those who attended the AGM, held at the October monthly meeting, will remember that the whole of the executive was acclaimed for another year in office. There was, however, a significant change. Jean Timpa, our long-suffering chair of the newsletter editorial board, was elected to the executive. Jean has been most loyal to the society and has an unblemished record of attendance at executive meetings. She has played a vital role, providing wise counsel, yet she has never been allowed to take a full part in the proceedings. Now she can! Lucky for us.

A lot has happened this year. We have had an exciting series of presentations at the monthly meetings. Attendance has been very good, even when the weather was bad or other events were going on. The field trips, also well attended, have been outstanding. Good attendance certainly makes it easier to get leaders to do other trips in the future. Membership is even up a bit.

BNS has improved its public image this year. A lot of work has gone toward improving displays at the Robie Tufts Nature Centre. The increasing popularity of the Wolfville market has increased our exposure to the public. The portable displays for use at the Acadia Craft Fair and other venues have also been improved.

This year our stalwart calendar team has produced yet another outstanding product. Competition from the Women of Wolfville has slowed initial sales, but I feel sure that they will pick up once people realize that the photographs are truly wonderful and the information provided is very useful. Also this year, we published Merritt Gibson's new walking guide to our area, *Nature Walks: Within the View of Blomidon*. It is a marvellous piece of work. BNS keeps all the proceeds from sales and will be pleased

to put the funds toward our youth programs, as Merritt has requested. Be sure you get copies of these fine works. A good rule is one for yourself, one for a gift, and another for posterity. We have also produced a CD-ROM with all the past calendar photographs on it. It is certainly worth having.

We continued our Art and Nature competitions this year. The spring competition at Port Williams Elementary School was a great success. This fall, it was held at the Gaspereau Valley Elementary School and produced some very nice work from the children in grades primary, 1, and 2 (see report on page 4 and the newsletter winners on the cover and page 5 of this issue). Next spring, we hope that LE Shaw Elementary School, at Avonport, will take on the competition. The children seem to enjoy the competitions, and we certainly enjoy their submissions, especially those chosen for the cover or for inclusion in our newsletter. Mary Pratt does a super job of judging.

The summer's young naturalists program built on the successes of last year and proved to be an outstanding success. We received enough funding and managed to expand the program to include children in several locales outside Wolfville. The success of these programs gives us every hope that funding will again be available next year. We have lots of ideas. Eventually, we may be able to offer programs throughout the year.

Cooperation between the university and BNS was very good. The weekly walks through the Harriet Irving Botanical Gardens and on the Acadia woodland hiking trails were great. By providing office space for our young naturalist leaders, the university made life a lot easier for them.

I have probably forgotten a few of our important accomplishments; nonetheless it was a pretty good year, don't you think? None of this could have taken place without the hard work and dedication of many people, including you, the members who supported all these undertakings.

Thanks a lot!

On behalf of your executive, may I wish you all the very best of the holiday season. I am confident that, with your help, the New Year will be another great one for BNS.

Style Conscious

by Doug Linzey

Recently on NatureNS, the online Nova Scotia naturalists' e-mail forum, an age-old question arose: Shouldn't Kings County have an apostrophe? Similar questions involve spelling: What's the proper spelling of Margaret(s)ville, or Pereau(x)? Or, Should "salt marsh" have a hyphen?

One thing we copy- and stylistic editors strive for is certainty and consistency in spelling, punctuation, capitalization, abbreviations, numbers, and all sorts of other elements of style. When I accepted an invitation to help with this newsletter, I looked for a style guide. Finding none, I proceeded to develop one, mostly with the blessing of past and present editors Mike McCall and Jean Timpa.

An important part of creating a style guide is choosing references (and specifying any deviation from, or addition to, them). My dictionary of choice, for example, is the *ITP Nelson Canadian Dictionary*, from which I get preferred Canadian spelling, hyphenation, and capitalization. For bird species names I rely on the AOU (American Ornithological Union) *Check-list of North American Birds*. For mammals I refer to the *Index for the Mammalian Species* (American Society of Mammalogists), and for herps and mammals the Nova Scotia Museum of Natural History is useful. For insects I rely on a number of Web resources, and *Roland's Flora of Nova Scotia* (the Zinck edition) fills the bill for plants.

Field-trip leaders and reporters sometimes report plants by local common or folk names, which are not necessarily a reliable guide to species (equally true for many of the insects, and even mammals). That's why I'll often make sure that the common name given in Roland/Zinck or the Latin name accompanies common name variants. This is not a criticism of trip leaders, but an attempt to help readers identify what field trippers saw and where they saw it.

For the all-important naming of geographic features, a common source is the official gazetteer, which in our case is the *Nova Scotia Atlas*. That's the

Doug, a freelance editor in real life, is now into year 7 with the BNS newsletter.

source of spelling you'll see in this newsletter, regardless of how locals or field trip reporters or even highway signs treat the names of towns, bays, lakes, and other features. On the tricky matter of apostrophes in place names, here's a part of what I wrote to NatureNS in October:

As a matter of interest, the Nova Scotia gazette includes only three place names with apostrophes: Clark's Harbour (Shelburne County), St. Peter's (Richmond County. Note that only the village has an apostrophe – not the bay, canal, inlet, island, or junction), and Fisher's Grant (a two-part Indian reserve in Pictou County). For the truly punctilious, you should know that one ungazetted name is officially apostrophized: the Municipal District of St. Mary's (Guysborough County).

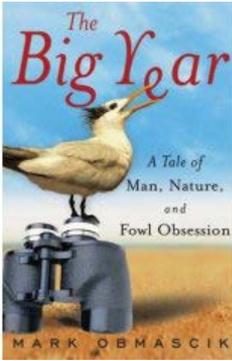
One of my jobs is to give our publication a consistent look and feel while allowing contributors to maintain their own styles. Apart from spelling, punctuation, and grammar, we achieve consistency in part by providing visual clues for different elements, using such variables as italics or bold text, indentation, capitalization, typeface, and font size. For example, our practice is to use initial capitals for common species names (Chimney Swift), but not for common generic names (swift), even if only one species of that genus occurs in Nova Scotia. Latin binomials are in italics, as are book and film titles. I tend not to use abbreviated forms of common names simply because, apart from the four-letter codes that banders use for birds (but few others understand), there are no common abbreviations. We do use some abbreviations in count lists because of space limitations, and in the quarterly bird report you'll see abbreviated dates and expressions because they suit the nature of the column.

There are plenty of things to consider in producing a readable and useful newsletter, but I'll not bore you with more detail. Jean Timpa, my colleague here on the newsletter staff, is very good at finding and rounding up excellent content. My thing is putting it on paper. I think we make a good team.

One thing we don't see much of is letters to the editor. If you have any questions, comments, suggestions, or points of discussion on any aspect of the content or style of the newsletter, let us know. We're in the book.

BOOK REVIEW

A Funny, Fine Birding Tale by Mike McCall



The Big Year: A Tale of Man, Nature and Fowl Obsession

Mark Obmascik

New York: Free Press 2004

268 pp

In 1953 Roger Tory Peterson and James Fisher, a well-known British naturalist, spent three months birding day in and day out all over North America. They told their story in a book and in a documentary film, *Wild America*. But it was an innocent footnote of Peterson's – "My year's list at the end of the year was 572 species" – that resulted in the emergence of a new breed of birder he probably couldn't understand: the "counter." This in turn led to the founding of the American Birding Association and the concept of the Big Year: a competition to see who could record the greatest number of species in North America (from the Mexican border to Alaska) in a single calendar year.

As this "sport" grew, entrepreneurs published detailed guides providing exact directions to sites where particular species were almost sure to be seen, and rare bird alerts and hot lines were created. Peterson's total soon became a modest one, bettered year by year, and competition became cutthroat as Big Year winners became cult figures within the counting fraternity, feted like rock stars and football heroes. "This is birding?" enquired the purists who then provided their own answer: "No!" "Why," they fussed, "some of these guys spend fortunes on travel and on hiring guides to escort them to choice spotting sites and then, if you can believe this, to identify the bird for them! They're not interested in the birds, just numbers of species! Harrumph."

In *The Big Year: A Tale of Man, Nature and Fowl Obsession*, Mark Obmascik follows the 1988 adventures of three men determined to break the Big Year record of 721 species set the previous year by one of them,

Sandy Komito, who spent \$60,000 (\$83.22 per bird) and 220 days on the road in 1987 just warming up for 1988. Al Levantin, a retired executive with seriously deep pockets, and Greg Miller, a birder from childhood who made a bare living writing computer code, are the other two aspirants to the Big Year title. Obmascik is a birder and a reporter and so brings solid birding credentials and a reporter's eye for telling detail to the fevered and sometimes wacky travails of the three men as they pursue the feathered chalice.

The Attu episode, a very expensive (\$5,000) Alaskan island expedition for Miller, finds him along with Komito and 30 other dedicated counters chasing Asian and Siberian species around by foot and on bicycle in foul weather to identify as many species as possible in the few days available. But a providential storm that swept in Siberian species never before recorded in North America, while making it easier to record rare species, simply ratchets up the competitive instinct and keeps everybody on the hop, healthy or otherwise. At another time, Miller is thousands of miles from his New Jersey home with no money and only maxed-out credit cards in his pocket. He manages to talk a credit-card company employee into upping his credit limit by \$500 if he'll make a payment within a week. He never had too look for a meal in a McDonald's dumpster, but he came close.

This book is a funny, fine read, and it is as much about the American Birding Association and its history and characters as it is about Levantin, Komito, and Miller and the way they and fellow counters pursue their interest. Even if you're skeptical about this kind of birding, I think you'll enjoy the tale.



Fair Trade Café

Specialty Coffees, Teas
and Chocolates

Homemade Baked
Goods

1678 Barrington St., Halifax
11865 Hwy #1 Grand Pré
450 Main St., Wolfville
Acadia Cinema Building

www.justuscoffee.com

BNS FIELD TRIP REPORT
Canoe Trip 1: Methals Lake
by Patrick Kelly

Sunday, October 1, 2006 – I was the first to arrive at Forest Home (on Highway 12 south of Kentville). It was not long before several others showed up, including Reg and Ruth Newell, the trip leaders. Our route was to go down the Gaspereau Canal and eventually come out at the power dam on the lower end of Methals Lake. As the crow flies (or as the fish swims in this case) the total distance to be travelled was about 7 km. By car it was closer to 35 km, and we had to get some of the vehicles to the pick-up point and then get back. That took some time, but eventually we were ready to set off.

In any type of field trip, the weather plays a crucial role. That is even more so when you are in an open boat. While it was a bit cool early in morning, the rest of the day was very pleasant. The canoes were launched one at a time into a strong current where Gaspereau Lake flows under the highway. A convoy soon began to assemble just downstream where the river opens into Trout River Pond. Once we were all together we set off to the pond to the entrance of the canal proper. Since these lakes had been partially formed by dams, there were a lot of stumps just below the water line. It was hard too miss all of them, and our canoe rode right up onto one and it took us the better part of five minutes to get freed.

The canal itself was quite pleasant as the current carried the canoes along at a pleasant pace and the only paddling needed was to keep the canoe straight. There was quite the contrast between the starboard shore, which was heavily forested, and the port side, which was a rocky bank where the road that runs along the canal was being rebuilt and widened. There was the occasional sound of chickadees, and at one point we got a good view of a Downy Woodpecker.

The canal empties into Little River Lake, which has a number of cottages on it. As a result, one the islands on the eastern side has a cleared area on its southern tip with a table, and even a composting toilet. That was our destination for lunch. On the way we also passed some areas of extensive

shrubby wetlands. As we approached the island, some of us who were near the back of the flotilla noticed an adult Bald Eagle perched in a dead tree at the water's edge to the north of the point for which we were heading. The eagle allowed us to glide quite close and simply looked down at us and provided some great photo opportunities.

The lunch break was a nice chance to get out of the canoes, stretch, and have some refreshments. It was then back into the boats and eastward to the next section of the canal. The area on that side of the lake is quite shallow, with a lot of stumps showing up above the water, but there was a relatively easy channel to follow to the entrance. A short while later we were in Methals Lake and could make out the dam and one of the buildings that is part of the power plant. After landing, many of us stayed around as the Newells took us on a tour of the various plants that were growing along the dam. We were also treated to several more Bald Eagles active in the channel below the spillway. A perfect way to finish up a great trip.

BNS FIELD TRIP REPORT
Canoe Trip 2: Cloud Lake
by Patrick Kelly

Sunday, October 15, 2006 – Two weeks later, I again found myself in a canoe, this time leading a field trip in the Cloud Lake Wilderness Area south of Greenwood (Grid W3, p. 56 of the fifth edition of the *Nova Scotia Atlas*; Grid A3, p. 14 of the previous “square” edition). The original leader had an unexpected change of plans, and rather than cancelling the trip I decided that I would try leading it. I was told that I had one of the main qualifications – I knew how to get there. This time we also had great weather, and although we had a smaller group, most of whom had been on the trip earlier in the month, that did not dampen anyone's spirits.

While we did not have to make arrangements for starting and stopping in two different locations, we did have to drive there, the last 15 km on a dirt road, which fortunately was in very good condition. The parking

area has a wide ramp, making it easy to get the canoes (and one kayak) into the water. The parking area is on the western side of the lake, which is dotted with islands of various sizes. The northern and eastern areas of the lake are much more open. While wind was not a problem, I thought it would be more interesting to meander between the islands. We made our way and quickly found the first of several beaver lodges. While some found the number of islands a bit confusing, I had brought along aerial photos (thank you, Google maps) to follow as we went along.

In the southern end of the lake is a point on the mainland, mostly bare rock, that made a great place to stop for lunch. I have been on the lake in the past and have seen people there with lawn chairs reading books. It's a lovely place to get away from it all. As we packed up from lunch we decided to see if we could cross the lake and find the portage to Northwest Arm (the one on Frog Lake, not the more famous one in Halifax). On the way there we passed a very picturesque island dominated by a large pine tree. Most of us took pictures as we passed by. You can imagine my surprise to find Roy Bishop's picture of it as the October photograph in the 2007 BNS calendar. It is not often that a field trip report can point to the calendar as part of the write-up of events.

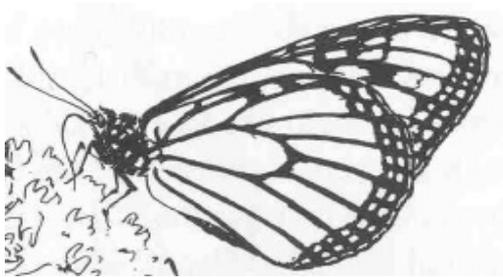
The portage was easy to find, as one of the nearby trees was marked with brightly coloured tape. Once again, it was nice to get out and stretch our legs. Although there were some rocks and roots under the leaves, the portage was a relatively level and easy walk, about 750 m long, mostly through mature hardwood trees. As many of the leaves had already fallen, the visibility into the woods was quite good. I was disappointed that there were no birds other than a few chickadees. We stayed about 10 minutes at the Frog Lake end before heading back to the canoes.

Our route back was more toward the open part of the lake, still with quite a few islands. We were escorted for a short time by two loons, who even called for us. A third loon could be heard replying from the other side of one of the narrower islands. One of my books, *The Complete Guide to Ireland's Birds*, has a much more poetic name for *Gavia immer* than Common Loon; in Ireland it is the Great Northern Diver. Not only can they dive, they can also swim like the dickens, and although we were making pretty good time in the canoes, the pair soon headed off into the main part of the lake, leaving us behind.

Since we still had lots of time, I took our group around some islands to the north and returned around a small island adjacent to the parking area. Some were a bit surprised that you could get that close and not realize that the parking lot was just over a low rise. Once we got the canoes out of the water, several of us continued on to the road that leads into the eastern arm of Frog Lake. I expect that we will be making a field trip to this lake again in 2007, and perhaps we will start in one lake, use the portage, and finish in the other lake.

NATURAL HISTORY
Monarchs
by **Larry & Alison Bogan**

This morning [sometime in September 2006 – ed.] we did an inventory



of hanging chrysalises on our property. We have a healthy patch of common milkweed to the south of our garage and southeast of the house. We counted 32 on the outside of the garage and six inside (an additional two had already emerged). There were 13

on the house all on the south and west sides (nearest the milkweed). Total count, 48, but undoubtedly there are many hidden in the nearby trees and flower bed. We encounter caterpillars in the grass generally crawling away from the milkweed patch.

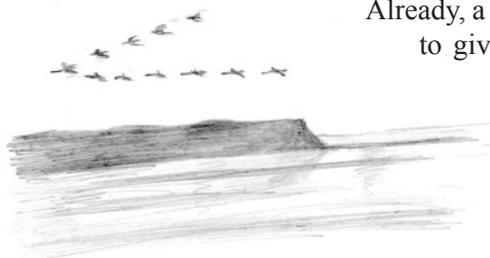
Apparently when they encounter an object or building they start climbing and then usually attach themselves under an overhang. Most of the chrysalises were under the building eaves, under window or door sills, and under leaves.

We had at least four Monarchs flying around all summer and observed mating a couple of times. Late in the season, the female was busy flying over the milkweed patches (we have more than one) depositing eggs.

NATURE NOVA SCOTIA NOTICE

Time and Tide: Nature Canada 2007

Blomidon naturalists will be front and centre at the Nature Canada 2007 conference, August 1–5, in Wolfville.



Already, a some of you have volunteered to give talks about various aspects of the Bay of Fundy and area. Another group of volunteers will be leading a wide variety of field trips for birds, plants, and other natural phenomena.

There are still plenty of things for other members to do. The organizing committee is looking for someone right away to help with fundraising (to sponsor breaks, venues, keynote speakers, etc.). And we also need someone to help coordinate displays. One of the most important functions of the host community is to make visitors feel at home. Please let us know if you're able to help with local or airport transportation, or just with "adopting" a fellow naturalist from away for a few days.

To find out how you can help, or to make suggestions, please contact one of the organizing committee: Joan Czapalay, chair (902 431-8727, <joancz@ns.sympatico.ca>), Larry Bogan, communications (902 678-0446, <larry@bogan.ca>), Doug Linzey, program (902 892-7176, <doug@fundymud.com>).

BNS FIELD TRIP REPORT

Astronomy Observing Session

by Roy Bishop

October 21, 2006 – Unfortunately, both October 21 and October 22 (the rain date) were cloudy, so this field trip did not take place.

BNS FIELD TRIP REPORT
Acadian Nature Hike
by **George Forsyth**

Sunday, November 5, 2006 – As with all of our BNS hikes and field trips, the group of participants is the highlight of the day. We were fortunate to have 28 interested walkers on this cool Sunday afternoon.

The facilities of Lockhart Ryan Memorial Park in New Minas were new to some of our group, who were impressed by the development of a multiuse recreational facility in the core of the Wolfville-Kentville corridor of Kings County. The sports fields and courts are superb, the playground and picnic park relaxing, and the natural areas and their trails are indeed interesting. The proximity of the park to the Cornwallis River and some adjoining private property allowed for an interesting afternoon.

We started by walking the trails in the western portion of the park and saw some of the trees and shrubs that are identifiable by their bark and twig structure at this time of the year. The leaves on the forest floor are also helpful in this identification, but not certain, as they have been wind swept. There are some beautiful northern Red Oaks, some Largetooth Aspen, and some large *Amelanchier* trees in this part of the park.

When we arrived at the beach volleyball court, the hikers were interested to learn that they were indeed standing on a beach, one that was lapped by waves thousands of years ago as the glaciers receded after Nova Scotia's last glaciation. In the park and toward the river we were able to see the various levels of erosion that have sculpted this area as the glacier melted and the water flowed toward the present river. As each level formed, the edge of the sea or river would have tempered the flow of water, forming a barrier to the erosion and allowing a formation of sand and gravel to deposit at its edge.

At the northern boundary of the park we had a view of the Cornwallis River and the dikes. While we talked about the building of the dikes we had a reminder of the change of seasons: A lone Bald Eagle flew from the north, possibly a winter visitor, while a flock of cormorants flew west, leaving the area for the winter.

Descending the path toward the railway tracks that form the north boundary of the park, we followed a path that formerly was used to bring wagons of salt hay that were floated on the tide to the farms of Sunnyside, the former name of this area of New Minas. We easily walked to the river edge on the present beach level. The salt-marsh grasses and accompanying vegetation were typical of the Minas Basin margins. Standing in this spot gives a wide view of the river, and it is amazing that so close to New Minas one can appear to be so isolated. We could not see any evidence of development except the dikes – also a topic of discussion. (People from away seem frustrated by the locals – writer included – who use the word to mean both the dike walls and the fields they protect. We seem able to understand from the context to which one is referring. So a word lesson by the locals for the newbies took place on the dikes.)

Our next wondering took us through the “French orchard,” an area where my father played as a child almost 70 years ago. It is referred to as the French orchard because of the numerous trees that have descended from the Acadian period before 1755. These trees by family history are recorded as French. The Peter Bishop family had continuous ownership from 1760 until the 1970s, and through this means my father came to know the orchard. The rows are long gone, the trees unkept, unpruned, and unpicked; yet the seeds that continue to sprout from these quince and apple trees have a lineage that parallels the Acadian history of Nova Scotia, both of them surviving in areas that until recently were unfettered by the politics and development of the times.

We snuck a peek at a modern development, so close to this remnant of Acadian agriculture are the modern agribusinesses: Hostess Frito-Lay, who store a year’s supply of potatoes for chipping; Co-op Atlantic, who supply large poultry, pork, and dairy farms with feed rations; and ACA–Eden Valley Farms, who process millions (not a joke) of chickens each year. The Acadians would be pleased to see that the seeds of agriculture they sowed so many years ago have continued to be cultivated, but they would probably be awed by the concentrated volume of the industry evidenced by these three factories situated on land that they settled in the 1690s in order to escape the constraints of development at Annapolis.

The last stop in our wanderings through history was at the site of the cemetery used by the Acadians in New Minas. At the foot of Cornwallis

Avenue immediately south of the railway tracks on a small knoll is a piece of land that has been untended for centuries. Through family history and references in Arthur W. Eaton's *History of King's County* (1910), p. 31 (online: <<http://www.ourroots.ca/e/page.aspx?id=315760>>), the Kings County Cemetery Preservation Society has cleared brush from the site and feels certain that this is indeed the site of the Acadian burial ground.

Throughout our wanderings and wonderings our group shared both questions and answers, visited, and enjoyed a Sunday afternoon in one of the richest areas in the world. Rich in history, rich in beauty, rich in natural variety, and rich in the experience of our members, who love nothing better than following a field trip leader down the "unbeaten" path.

Field trip report: BNS & Halifax Field Naturalists
Yummy Muds of Minas
by Jim Wolford

Sunday, September 10, 2006 – Kingsport Mudflats and Salt Marsh. The coincidence of both Full Moon and perigee (nearest Earth-Moon distance) on September 7 resulted in the lowest low tides of the summer on September 10. Tidal amplitude today was 15.7 m, almost 52 feet! (From the low tide line when we looked back to shore, the long walk looked very flat, and the tidal verticality was hard to appreciate.)

Overnight rain plus heavy overcast resulted in a nice-sized group of about 20 participants. I handed out Sherman Williams' tide chart for the month, a list of common and genus names of common critters of Kingsport beach, and a list of topics for my slideshows on the upper Bay of Fundy, plus a summary of biodiversity statistics for the marine and estuary area of Minas Basin and Minas Channel. Also, I strongly recommended Merritt Gibson's book *Seashores of the Maritimes* (Nimbus, 2003) for an easy way to identify common items found during beachcombing plus lots of natural history tidbits about the examples.

We saw lots of shells of slipper-limpets at high-tide lines. Someone quickly found a living large moon snail, which should have been in the lower intertidal area (maybe found yesterday and left high on the beach). Next we found an operculum of a moon snail by itself, but then in the lower intertidal, besides the numerous partial shells, we found no moon snails at all on the surface (very strange for a low, low tide). Later I showed everyone clam shells that had the neat bevelled holes drilled in them by the toothed tongue-like radula of the moon snail along with secreted hydrochloric acid.

We saw serpentine tracks in the sand from the sand sowbug, *Chiridotea*, in upper sandy areas, and in middle-intertidal mud tiny clumps of sediment on the surface from buried segmented worms called threadworms, *Heteromastus* (very long and thin, reddish-brown). Digging to show the threadworms showed us a white ribbon worm, *Cerebratulus*, and a small pink bloodworm, or baitworm, *Glycera*. Baitworms are commercially dug and exported to US east coast for bait for sport fishing. We saw two other kinds of segmented worms: buried sandy-tubed bamboo worms, *Clymenella* (indicated by large clumps of sand pushed up out of their tubes), and scaleworms, *Lepidonotus*, under large rocks.

In a large tide pool around a rock, I used a sieve and a pan of water to show lots of sand shrimps, *Crangon*. We found very few hermit crabs, which surprised me a lot (there should have been huge numbers of little ones in pools). We found shells of three kinds of true crabs (Green, rock, Lady), but the only living ones were green crabs. We also found lots of cast “skins” of growing young green crabs. Barnacles were incredibly abundant and densely packed on almost every solid surface.

The lower intertidal areas are usually subtidal, rarely exposed by tide. There, feathery, whitish plant-like colonies of hydroids were everywhere, attached to the mud surface, rocks, etc. These are micro-predators on small swimming crustaceans, and they use stinging cells to subdue them. There were oodles of shells and holes from razor clams, and we dug up several living ones, one of which cooperated nicely when laid in a puddle by quickly getting itself upright and then burying itself for us (until it got tired or hit a solid subsurface layer). Other clams found were two living quahogs and shells, and shells of quahogs, surf or bar clams, false angel-wings, and Pandora.

Extremely abundant snails were New England basket shells, which are mainly scavengers; we saw a few dense aggregations in feeding frenzies, their bodies nearly totally out of their shells. Other snails were common periwinkles, dogwinkles with their egg-cases (latter not abundant), and one waved or Common Northern Whelk. Living slipper-limpets or slipper-shells of two species were very abundant, living in sexy stacks (female on bottom, males and immatures on top) on rocks or shells.

One “sea mop,” or cluster of transparent “fingers” that were egg-sacs of Peale’s or Long-finned Squid had probably been freshly laid. We saw occasional sandy-coloured, leaf-like skeletons of bryozoans, *Flustra*, which live on rocks subtidally.

At the low-tide line, one rock had several very young colonies of animals that were probably Eyed Finger-Sponges, a formerly common subtidal species that has become very rare, and we found a single dead unattached specimen. Two small rocks were covered by a living crust of red beard sponge. Nancy Nickerson found a tiny baby flounder (unidentified species).

A large outcrop of sandstone in the middle intertidal zone had lots of hanging colonies of the Zigzag Wine-glass Hydroid (Gibson’s name) plus colonies of several kinds of seaweeds (*Ascophyllum*, *Fucus*, *Enteromorpha*, *Ulva*, *Porphyra*) plus huge numbers of small barnacles.

Blue Mussels, with their very tough byssus threads for attachment, have become much less abundant than they were just a year or two ago.

A small upper intertidal salt marsh had huge numbers of densely aggregated, buried, small soft-shelled crabs. Also in the salt marsh we found holes and U-shaped tubes with mud shrimps, the famous food of the migrating sandpipers.

Back at the wharf, I enticed everyone to walk south through the salt marsh that is protected by the wharf – We saw several small living Green Crabs and incredibly large and dense numbers of mud snails, which are scavengers and also grazers on the unseen microscopic diatoms (golden-brown algae) that are major producers of food in this extremely rich ecosystem, along with the salt-marsh cord grasses.

SHOPPING

A Telescope for Christmas? Caveat Emptor!

by Roy Bishop

In the December 2 edition of the *Globe & Mail* is a large advertisement by a camera-store chain for an astronomical telescope. The first line states: “Bushnell 660x Telescope.” In case the reader missed this opening line, four lines further down in large red print the ad blares: “660x Magnification,” followed by “Powerful telescope perfect for stargazing on a clear winter night! Reg. \$149.99, Now \$99.99.”

A photo reveals the telescope to be what knowledgeable astronomers call a “Christmas trash telescope.” Even if it had good optics, its small 50 mm or 60 mm aperture would be capable of a magnification of no more than about 100x. The advertised magnification is pure hype: misleading and irresponsible. The general public does not know that the important parameter of a telescope is aperture, not magnification. The ad writers capitalized on this ignorance. They say nothing about aperture; instead they stress magnification, and claim a magnification far higher than the laws of optics allow.

Also, the “deluxe aluminum tripod” and “alt-azimuth mount” shown in the photo are so light and spindly that aiming the telescope at a star or planet would be an exercise in frustration. The price alone reveals the inadequacy of the telescope. It is not possible to make an astronomical telescope worthy of the name (good optics and a steady mount) and sell it profitably at such a low price. Nevertheless, there is a big market for \$99 Christmas trash telescopes, and manufacturers are happy to profit from it.

The tragedy is not so much the waste of \$99.99 plus HST. The tragedy is the frustration a child will experience in attempting to use the telescope. The child’s encounter with the stars would have been far more enjoyable and stimulating had the \$99.99 been put toward a good pair of binoculars.

Telescopes worthy of a child’s interest in the stars start around \$400, but be careful – there are trash telescopes in this price range too! Also, don’t visit camera stores or department stores if you are looking for

an astronomical telescope. Stores with knowledgeable staff and good telescopes are few and far between. Reputable dealers can be located on the Internet, but if you are not familiar with telescopes, ask advice from someone who knows telescopes before opening your wallet.

MORE SHOPPING

A BNS Gift for Christmas

Nature Walks: Within the View of Blomidon

Merritt Gibson, with illustrations by Twila Robar-DeCoste

published and distributed by BNS, 2006

218 pages

Cost: \$20.00

There are many walking trails and country roads within the view of Blomidon. There are walks across dikelands, along lakes and rivers, through different forest types, and along sandy and rocky shores. Some of my favourite walks are the trails at Blomidon Provincial Park and Cape Split for carpets of flowers in spring and migrating birds in autumn, the rocky coast at Scots Bay to explore tide pools, and the shores of the Minas Basin in August to watch thousands of sandpipers. Walking the same paths and anticipating the seasonal changes are never-ending sources of pleasure.

The title *Within the View of Blomidon* was suggested by the BNS constitution, which states that the society is so-named because “many of its activities will take place within the sight of Blomidon.”

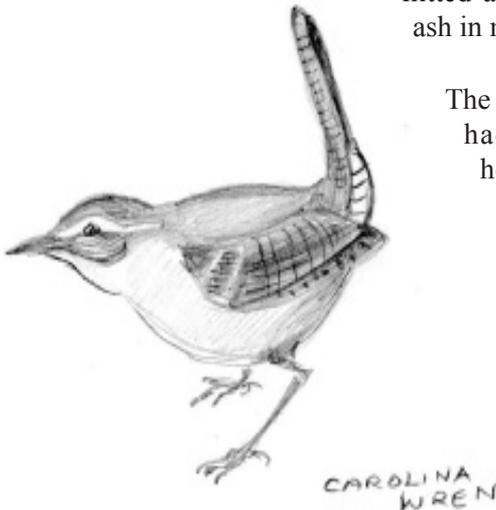
You can easily find the plants and animals mentioned in this book along public roads through wooded areas, across diked lands, and along saltwater beaches and marshes. The world around us is full of living things. Take time to explore it.

The book is available in Wolfville at Box of Delights, Herbin Jewellers, The Odd Book, and Blomidon Inn; in Greenwich at Hennigar’s Farm Market and Elderkin’s Farm Market.

SEEN IN THE WILD
Fall Birds 2006
by Mike McCall

Bald Eagles are admired for their flying skills, but this fall subscribers to NatureNS were treated to several reports of eagles being perfectly comfortable on the water. Sandy Hiltz at Port Clyde reported on one “that made numerous swoops over the water then settled on top of it like a gull. It sat there for about five minutes and finally took off with prey in its talons.” Ray Arsenaault reported seeing an eagle that caught a fish that was too heavy to fly with, so the eagle used its wings to swim to shore. On Oct 8 Sandy Hiltz reported yet another aquatic Baldie swimming ashore to dine on its catch. Other sources confirmed that this is well-known eagle behaviour.

There were several reports of warblers passing through as summer waned and nights got cooler but Yellow-rumped Warblers seemed to be together in larger numbers than others. Richard Stern reported two waves at Chipmans Corner on Sep 9, one of 20 and another of 50+ later in the day, as did John Belbin on Sep 19 and another correspondent near Antigonish on the same day. A single immature bird flitted around the lower branches of an ash in my yard on Oct 19.



The mystery bird whose “big” voice had Jean Timpa scratching her head for some weeks in August and September turned out to be a Carolina Wren. Those who read Jean’s tale on NatureNS were treated to a wonderfully detailed description of this visitor. No wonder Jean was mystified. Small bird,

large repertoire – it is reported to utter songs resembling the Belted Kingfisher, Common Flicker, Pine Warbler, Rufous-sided Towhee, Red-winged Blackbird, Eastern Meadowlark, Gray Catbird, White-eyed Vireo, Scarlet Tanager, and Song Sparrow. Glenys Gibson had one in Canning in mid-October.

Mike Brylinski reports two American Bitterns at Atlanta, to the west of Sheffield Mills.* They have been present for three weeks, and show up about 5 p.m. every day in the marsh near his home and apparently remain there overnight. A friend reported a bittern sighting in the area this past August.

Here's a report from Eleanor Lindsay at Seabright – some distance from the BNS area, but I think it's interesting. "A Blue Jay with a broken and severely malpositioned right leg has returned for the *fourth* year in a row. The leg sticks out at an awkward angle, making perching on slender branches or feeder perches very awkward, necessitating much wing flapping and burning of energy to stay in place. It is somewhat smaller than the others, but appears otherwise as feisty and lively as ever."



To her questions – "Is this unusual, for such . . . or any birds? And is the average lifespan known for blue jays?" – Lance Laviolette responded: "It is very unusual. It is difficult enough for a completely healthy bird to survive let alone one with a disability. Indeed, it is estimated that 70 percent of the young of small birds die before they are one year old. The bird you're observing has obviously been able to overcome this handicap during the time when it would be

**Mike submitted this report November 8, on the eve of his departure for vacation. Reports in the present tense can be approximately dated to early November.*

most vulnerable, the winter, by taking advantage of the food available at your feeder. The average lifespan of a Blue Jay is given as about seven years. The oldest Blue Jay studied by researchers in the wild as 17 years and 6 months old.”

Three Northern Wheatears were reported this fall, one near West Pubnico, another at Turner Brook near Harbourville. The third, a local one, was seen by Richard Stern near Wolfville on Oct 22. The North American range of this bird is Alaska, but it has been known to breed in Greenland and eastern Canada.



On Sep 21 John Belbin reported: “At noon I dropped in at the Margaretville DU ponds. I had the scope propped in the car window to start the search for Wood Ducks when a couple of small falcons zipped across my field of view. Switching back to binoculars, I was able to watch some great aerobatics by no less than six American Kestrels as they hunted in pairs and chased each other about the pond. At one point they all cooperated in mobbing a raven and driving

it off. The contrast in size between the Kestrels and raven was quite amazing. The birds were extremely active and very noisy, chittering to each other the whole time.”

Large flocks of robins have been reported from several parts of the county. Jim Wolford sighted a flock of 50+ Oct 21 in Wolfville. They seem to have been particularly numerous in the days preceding Jim’s sighting, even here in Halls Harbour.

Jim and Pat have also been hosting a pair of Northern Cardinals at their feeder in the last week of October, birds that were still hanging around the first week of November. Is this the year of the cardinal? Jim reports three other pairs in Wolfville this fall, and Glenys Gibson reports that Canning is hosting two pairs, on the Gibson property. Perhaps two weeks ago Glenys Gibson told me there were still at least two m/f pairs

of cardinals in Canning, one pair on the Gibson properties, and another east of downtown Canning.

I have not included a summary of shorebird migration activity in this report because there was, to my mind, nothing very unusual. Besides, I am aware that most BNS members are on the Internet and are thus likely to access the NatureNS site and are as well informed as I am.

Other Creatures

Albino animals are not common, but when they do appear, people are interested. An albino Red Squirrel was seen in Waverley on Sep 8, and an albino skunk was spotted by several people around Annapolis Royal in mid-October.

Bats too, are the topic of much discussion. Jim Wolford spotted what he presumed to be Little Browns roosting in fairly open areas in Wolfville and Kentville in early September and asked whether this was normal summertime roosting or is it connected with their movement to hibernacula. Here's Hugh Broder's take on Little Brown Bat habits:

“This is a very interesting time of year for bats and I think that I can safely say we do not yet have a good handle on movement patterns. What we do know is that bats began arriving back at hibernacula more than two weeks ago and on some nights the activity there is extremely high. However, this activity is not related to the onset of hibernation but more likely the onset of courtship activities (and maybe the orientation of young of the year to hibernation sites). Day roosting happens outside the caves somewhere during this time, but we are not sure where. It also appears that there is a high turnover in the group composition at the sites. I can only speculate on where individuals go when they leave the hibernacula – it may be other cave sites. I hope that we can get a better handle on this over the next few years.

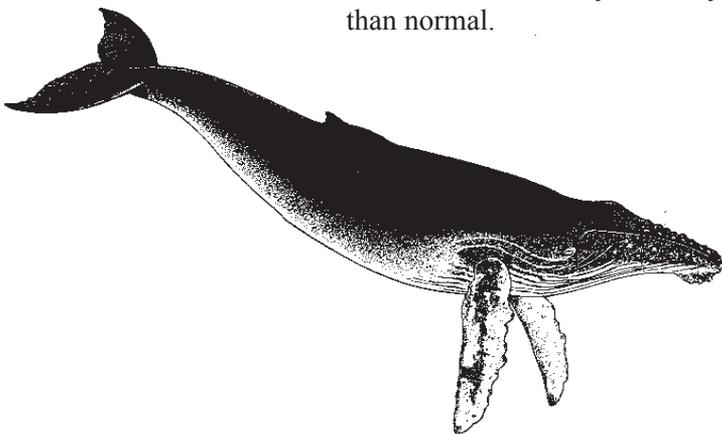
“This is also a time of year when we are more likely to see odd roosting behaviours. Maternity colonies will have broken up by now and individuals are more likely to be roosting solitarily, and we have all these inexperienced juveniles moving around and preparing for winter. During the summer months, male Little Brown and Northern Long-eareds are solitary day-roosters, but I expect most instances of roost observations of

the type that you have noted during the summer months would be male Little Browns (Northern Long-eareds are forest dwelling, so I wouldn't expect them to be visiting the liquor store in Wolfville). However, I would not be comfortable with making a prediction regarding species, gender, or age at this time of year."

Andrew Hebda added some interesting information on bat hibernation and energy use, in response to John Belbin's mild concern that bats might be looking at his house as a potential hibernaculum:

"Due to the winter fluctuations of temperatures in most dwellings (especially the attics), bats are not noted to hibernate in houses, etc., although I have seen bats in dwellings as late as December in Ottawa. One of the cues that is used for rousing from torpor is a rapid temperature change, which can occur with regularity in an attic (sun-warming roof). Since the energy needed to arouse (their body temperatures fall to that of the air around them) is limited, and they only have a small store of brown fat between their shoulder blades, most can only cope with about 10–12 arousals during the winter period. Once that fat is gone, they will not arouse, and end dead. This is why we discourage people from going into hibernacula during the winter."

Proceeding from the tiny to the titanic, a female Humpback Whale was stranded near Phinneys Cove in Annapolis County in early October. No signs of ship collision or net entanglement were noted on the 11 m, 40 t female. And on Nov 7 a pod of 50 Right Whales was reported in the Grand Manan area of the Bay of Fundy. This is much later than normal.



SEEING IN THE DARK
Night Thoughts by the Sea
by Roy Bishop

I spent the day and night of September 12, 2006, at White Point Beach Resort, the tourist/convention centre south of Liverpool. This resort is the only such facility in Nova Scotia that is situated on the open ocean. White Point owes its spectacular ambiance to its exposure to the North Atlantic, unobstructed by shoals, islands, or headlands.

Although the day was sunny, hurricane Florence was passing northeastward past Nova Scotia. From White Point I watched its edge, far out at sea, skirt Nova Scotia and move toward Newfoundland. The air was filled with a never-ending roar as swells from the storm entered the shallowing water, heaped up, and tumbled in awesome fury, expiring as acres of white foam sliding across the white sands.

In the evening I made my way out to the beach. In the dark the waves filled the night with their pounding thunder. Low in the southwest, bright Jupiter shone, and the Milky Way arched high over the sea, spanning the sky from Scorpius and Sagittarius in the south to Cassiopeia and Perseus in the northeast. But something bothered me. To see the stars and the Milky Way I had to hold up my arms to block the glare of the lights of the resort. Moreover, because of the lights, I was unable to fully dark-adapt, so my view of the sky was a faded version of what it could have been.

Lights are needed to illuminate roads, pathways, and doorways, but the lights in use at White Point are the usual variety that throw much of their light uselessly sideways and upward, not only obscuring the night sky but by their unshielded glare making it less easy for guests to see walkways and entrances to cottages.

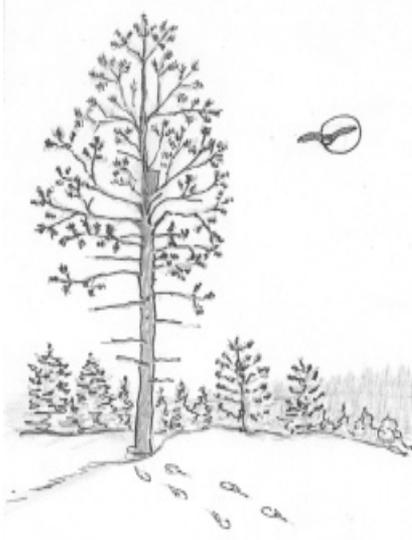
Good light fixtures are available. Termed “full-cut-off” luminaires, they use half the energy of old-style fixtures because the light is directed only where it is useful, downward onto pathways and streets. From half a block away (a distance at which an old-style light produces no useful illumination, only glare), the bulb of a full-cut-off luminaire cannot be

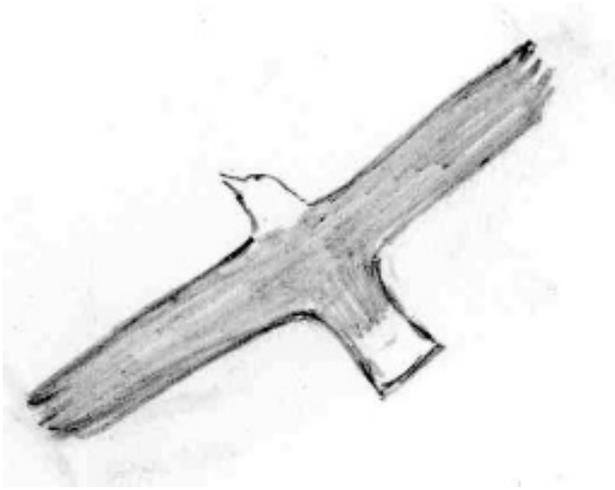
seen, only the illuminated area beneath. With glare eliminated, visibility is much improved.

White Point Beach Resort is remote from centres of significant light pollution. If only it had full-cut-off lights! The resort's spectacular view of the ocean during the day would be complemented by a spectacular view of the sky on clear nights. Even on cloudy nights guests would be able to dark-adapt and enjoy a spectacle that few people in our light-polluted world have seen: sparkling "stars" in the water, as tiny phosphorescent animals tumble in the surf. On moonless nights breaking waves glow with phosphorescence, but this spectacle is obscured by light pollution. The dark of night is part of our heritage, yet it is being lost through the careless, inefficient use of technology.

I have cited White Point, but the problem is ubiquitous. Each town and city in Nova Scotia suffers financially and esthetically from poor lighting, and unknowingly contributes to needless greenhouse gas emissions. The key to the problem is Nova Scotia Power because that company selects and installs the streetlights in our province. Considerable generating capacity could be made available for better uses if Nova Scotia Power switched to modern, full-cut-off lights. Our towns and streets would have better illumination, and streets would be safer at night because drivers would not be continually dazzled by poorly shielded lights. I cannot understand how Nova Scotia Power can, at considerable expense, seriously pursue megawatts of wind and tidal power while ignoring the megawatts being wasted on poor lighting.

Most people accept poor lighting because they do not realize that better lights are available. It appears that not until consumers insist on energy-efficient, full-cut-off lights will Nova Scotia Power and hardware stores put these lights in their inventories.





REPORT (CORRECTED)

Nova Scotia Migratory Bird Count
Annapolis Valley (Annapolis, Hants, and Kings Counties)
by Judy Tufts

You are probably wondering why the NAMC 2006 Valley counties results are reappearing in this issue of the newsletter. Recently I had problems with my computer and inadvertently ran afoul of column numbers and conversion in different formats while gathering tallies for our Valley counties for the newsletter. I still do not know what happened, but I acknowledge making a major error in not checking the final result before sending it off to our editor and production editor (sorry, Jean and Doug). I would love to say that a mischievous gremlin may have been at work, but I hastily admit that I sometimes lack the knowledge to adapt to the latest systems and have only myself to blame.

The numbers shown in the fall issue do not in any way correlate with the numbers put originally into my computer (which still baffles me), so I offer sincere apologies to all those interested in the Valley tallies. Here are the corrected results (see following two pages).

A total of 141 species were reported. Two hundred and twenty-four participants counted 26,616 individual birds.

Judy Tufts

Spring Nova Scotia Migratory Bird Count —

Species	Anna	Kings	Hants	Tot	Species	Anna	Kings	Hants	Tot
Red-throated Loon	-	1	-	1	Ruffed Grouse	1	7	26	34
Common Loon	8	14	7	29	Sora	2	-	-	2
Pied-billed Grebe	5	2	1	8	Killdeer	-	10	29	39
Northern Gannet	6	3	-	9	Greater Yellowlegs	-	-	2	2
Dbl-cr Cormorant	35	71	11	117	Solitary Sandpiper	1	1	-	2
American Bittern	1	-	6	7	Willet	2	12	19	33
Great Blue Heron	6	18	14	38	Spotted Sandpiper	-	6	7	13
Great Egret	-	1	-	1	Short-billed Dowitcher	-	1	-	1
Turkey Vulture	1	-	-	1	Wilson's Snipe	2	4	34	40
Canada Goose	53	89	146	288	Am Woodcock	3	2	33	38
Wood Duck	17	7	6	30	shorebird sp *	-	1	-	1
Gadwall	-	1	-	1	Ring-billed Gull	-	14	8	22
Am Black Duck	50	177	240	467	Herring Gull	181	1555	79	1815
Mallard	41	166	90	297	Lsr Blk-backed Gull	-	1	-	1
Black/Mallard X *	-	1	-	1	Gt Blk-backed Gull	22	564	127	713
Northern Pintail	-	3	-	3	gull sp *	-	109	14	123
Blue-winged Teal	4	2	-	6	Black Guillemot	1	3	-	4
Northern Shoveller	2	-	-	2	Rock Pigeon	130	192	200	522
American Wigeon	2	13	10	25	Mourning Dove	71	269	313	653
Green-winged Teal	4	26	4	34	Great Horned Owl	-	3	1	4
Ring-necked Duck	33	4	16	53	Barred Owl	-	36	11	47
Common Eider	235	1050	-	1285	Chimney Swift	-	4	2	6
Harlequin Duck	2	-	-	2	Ruby-thr Hummingbird	9	16	20	45
Black Scoter	12	-	-	12	Belted Kingfisher	2	18	15	35
Surf Scoter	16	152	27	195	Y-bellied Sapsucker	2	13	41	56
White-winged Scoter	7	-	-	7	Downy Woodpecker	17	130	67	214
scoter sp *	-	6	24	30	Hairy Woodpecker	5	38	49	92
Common Goldeneye	-	2	-	2	Northern Flicker	14	123	146	283
Bufflehead	5	-	-	5	Pileated Woodpecker	1	13	13	27
duck sp *	-	5	-	5	Olive-sided Flycatcher	-	-	1	1
Hooded Merganser	4	3	2	9	E. Wood Pewee	-	1	-	1
Common Merganser	10	9	-	19	Least Flycatcher	6	13	17	36
Osprey	3	2	5	10	Empidonax sp *	1	-	-	1
Bald Eagle adult	-	43	40	83	Eastern Phoebe	1	6	2	9
Bald Eagle imm. *	-	12	13	25	Eastern Kingbird	-	2	-	2
Bald Eagle age? *	-	8	-	8	Blue-headed Vireo	11	84	84	179
Northern Harrier	1	5	12	18	Red-eyed Vireo	9	4	12	25
Sharp-shinned Hawk	1	5	1	7	vireo sp.*	2	3	-	5
Northern Goshawk	-	-	2	2	Gray Jay	2	-	3	5
Broad-winged Hawk	-	-	2	2	Blue Jay	69	332	235	636
Red-tailed Hawk	5	39	16	60	American Crow	159	816	683	1658
Rough-legged Hawk	-	1	-	1	Common Raven	13	373	108	494
buteo sp. *	-	3	2	5	Tree Swallow	94	193	127	414
5 American Kestrel	2	7	5	14	Cliff Swallow	2	-	-	2
14					Barn Swallow	6	49	85	140
Merlin	-	1	7	8	Blk-cap. Chickadee	146	764	635	1545
Peregrine Falcon	-	1	-	1	Boreal Chickadee	-	-	1	1
Ring-neck. Pheasant	21	184	100	305	Red-br Nuthatch	6	56	39	101

* *unidentified or subspecies*

— Results for the Valley (2006)

Species	Anna	Kings	Hants	Tot	Species	Anna	Kings	Hants	Tot
White-br Nuthatch	7	47	6	60	6				
Brown Creeper	-	11	8	19	Am Tree Sparrow	-	-	5	5
Winter Wren	5	14	40	59	Chipping Sparrow	34	108	55	197
Golden-cr Kinglet	12	21	51	84	Savannah Sparrow	17	100	79	196
Ruby-cr Kinglet	2	31	175	208	Fox Sparrow	-	-	2	2
Veery	1	-	-	1	Song Sparrow	109	691	363	1163
Swainson's Thrush	2	8	5	15	Lincoln's Sparrow	-	-	1	1
Hermit Thrush	3	30	70	103	Swamp Sparrow	7	16	94	117
American Robin	112	748	919	1779	Wh-throated Sparrow	11	145	180	336
Gray Catbird	-	4	-	4	Wh-crowned Sparrow	-	-	3	3
Northern Mockingbird	-	1	-	1	Dark-eyed Junco	34	131	249	414
European Starling	244	1459	782	2485	Northern Cardinal	-	6	-	6
Cedar Waxwing	0	5	47	52	Rose-br Grosbeak	-	13	4	17
Tennessee Warbler	-	1	-	1	Bobolink	1	-	-	1
Nashville Warbler	-	11	80	91	Red-w Blackbird	103	443	399	945
Northern Parula	22	52	34	108	Rusty Blackbird	0	1	15	16
Yellow Warbler	7	35	7	49	Common Grackle	112	435	486	1033
Chestnut-sided Warb	-	5	1	6	Brn-headed Cowbird	1	14	2	17
Magnolia Warbler	-	10	1	11	Baltimore Oriole	-	2	-	2
Blk-thr Blue Warb	-	1	-	1	Pine Grosbeak	-	1	3	4
Y-rumped Warbler	24	206	182	412	Purple Finch	36	222	263	521
Blk-thr Green Warb	25	131	117	273	House Finch	2	-	1	3
Blackburnian Warb	1	1	-	2	Red Crossbill	-	-	5	5
Y-throated Warbler	1	-	-	1	crossbill sp *	-	2	-	2
Palm Warbler	15	13	42	70	Common Redpoll	-	-	20	20
Blk-and-white Warb	31	81	60	172	Pine Siskin	0	21	41	62
Ovenbird	19	56	6	81	American Goldfinch	97	664	529	1290
Northern Waterthrush	4	23	15	42	Evening Grosbeak	22	49	86	157
Common Yellowthroat	1	3	1	5	House Sparrow	10	109	101	220
warbler sp *	2	4	-						

Total: 141 species for the Valley

Regular

Foot (hr.)	19	110	85	214	Distance (km)	-	7	23	30
Car (hr.)	16	55	46	117	Parties (#)	-	1	4	5
Other (hr.)	-	5	-	5	Observers (#)	-	1	7	8

Feeder Watching

Foot (km)	12	185	113	310	Time (hr.)	4	173	108	285
Car (km)	278	986	167	1431	Feeder watchers (#)	1	73	49	123
Other (km)	-	34	-	34	Feeder stations (#)	1	57	36	94

Parties (#)

Parties (#)	3	41	34	78
-------------	---	----	----	----

Observers (#)

Observers (#)	8	56	49	113
---------------	---	----	----	-----

Stationary

Hours	1	1	-	2
-------	---	---	---	---

Owling

Parties (#)	-	1	-	1
-------------	---	---	---	---

Time (hr.)	-	1	3	4	Observers (#)	1	2	-	3
------------	---	---	---	---	---------------	---	---	---	---

Eastern Annapolis Valley Weather

Autumn 2006

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 (45 yr. average)	21.0 (19.9)	9.4 (9.4)	15.2 (14.7)	32 (94)	183 (169)
October (45 yr. average)	13.9 (13.7)	4.4 (4.6)	9.1 (9.2)	111 (106)	131 (141)
November (45 yr. average)	10.9 (7.6)	2.9 (0.2)	6.9 (3.9)	101 (131)	70 (81)
Season (45 yr. average)	15.2 (13.7)	5.5 (4.7)	10.4 (9.3)	244 (331)	384 (391)

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

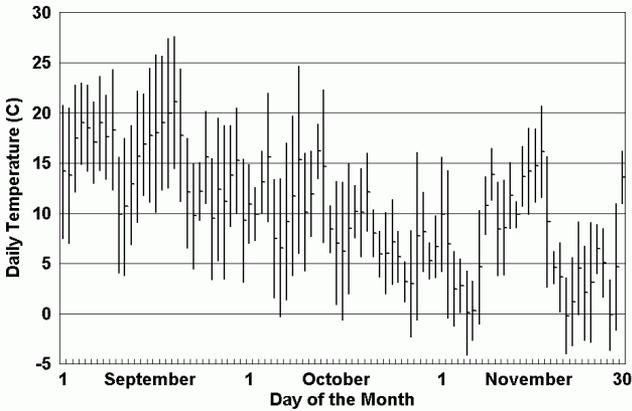
What a nice autumn we had. But then I always thought this time of the year has some of the best weather. It was warm, dry, and cheery. And as I write this (Dec 4), we are just getting our first real snowfall of the season. This autumn, I burned practically no wood to heat my house until late in November. September sunshine hours were up 10 percent over the norms, and the temperature was 0.5°C above average – no heating required then.

Temperature

The weather cooled quickly in October, as you can see in the chart showing the season temperatures, but that only brought October into line with the average October over 45 years. Then November turned balmy and ended up being 3°C above average overall. It was the period from the 7th through the 18th that pushed up the averages. During that period the temperatures were generally in the 10°–15°C range, the high for 17th hitting 21°C. In that period we were as much as 14°C above average for the day.

Min, Max, Mean Daily Temperature

Sep, Oct, Nov 2006 - Kentville, N.S.

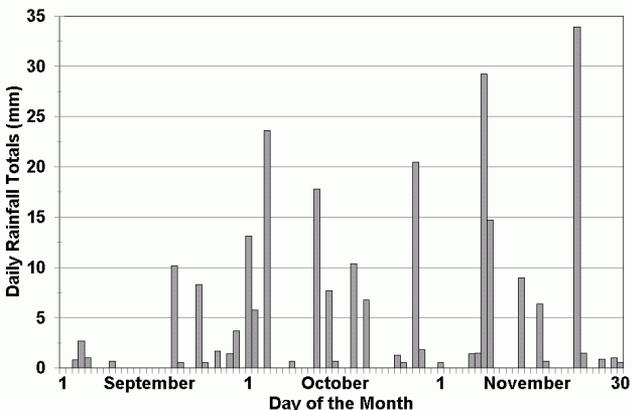


Rainfall

Despite the fact that a rainy October lingers in my memory, the facts show the month's rainfall to be normal. It was September and November that were drier than usual, with only one-third and three-quarters of expected rainfall, respectively. The season as a whole only had three-quarters of its normal precipitation, and no snowfall to speak of. Normally we can expect about 14 cm of snow in November, and you may remember November of

Daily Rainfall

Sep, Oct, Nov 2006 - Kentville, N.S.



2004, when we had 53 cm. Interestingly, all three months had a similar number of days with rain, but the difference was the amount of rain each day. The rainfall chart shows how the daily rainfall amounts increased throughout the season. September had at most 10 mm/day, October as much as 20 mm/day, while two November days were deluged with more than 30 mm of rain.

As we go through the autumn season we rapidly experience fewer and fewer daily bright sunshine hours. November normally has half the bright sunshine of September. This year September was up and November was down, so the latter month gave us only two-fifths the bright sunshine of September. Overall, the season was okay in this category. But of course I always want more sunshine (and clear skies for astronomy!).

What's in the Sky? **by Roy Bishop**

New Moon: December 20, January 19, February 17,
March 18, April 17

Full Moon: January 3, February 2, March 3, April 2

Winter begins December 21 at 20:22 AST.

Spring begins March 20 at 21:07 ADT

More Daylight Saving Time in 2007

People generally have an awake/asleep cycle that is delayed by a few hours relative to the day/night cycle. Consequently, in higher latitudes during the spring and summer when the Sun rises before people do, more energy is needed for lighting in the evening than would be the case if the two cycles coincided. To shift the lifestyles of their citizens more in phase with the day/night cycle, many countries adopt Daylight Saving Time, advancing clocks by one hour during the spring and summer. With the shorter daylight of autumn and winter, the evening energy saving associated with advancing clocks by one hour is cancelled by the accompanying need for more lighting in the morning.

For many years Daylight Saving Time has begun on the first Sunday in April and ended on the last Sunday in October. Beginning in 2007 Canada is following the lead of the United States by extending daylight time by four weeks: from the second Sunday in March to the first Sunday in November. The change likely will save some energy during the three extra weeks in March, but any saving in the week near Halloween is doubtful.

Daylight Saving Time is a misleading name because it is energy that is being saved, not daylight. A better name would be “Energy Saving Time.” The days don’t care what we humans do with our clocks.

A Total Lunar Eclipse (March 3)

A total lunar eclipse is one of the most interesting and beautiful sights in the night sky, particularly when viewed in binoculars or a low-power telescope.

In the past 10 years there have been five total lunar eclipses potentially visible from Nova Scotia. However, clouds obscured three of the five. Only two – on January 21, 2000, and November 9, 2003 – could be seen. Of these two, most people missed the 2000 eclipse because it occurred after midnight.

Thus, if they also missed the 2003 eclipse, few if any children in the Wolfville area have ever seen a total lunar eclipse. The next opportunity occurs on Saturday, March 3, and the timing is ideal – mid-eclipse occurs in early-evening. All we need is a clear sky.

The full Moon rises at 18:00 on March 3 with its lower edge already immersed in Earth’s umbral shadow. Instead of being a “full” Moon, it will be a strange-looking crescent. Total eclipse extends from 18:44 until 19:58. The partial umbral phase ends at 21:12, and the Moon leaves Earth’s penumbral shadow at 22:26. The most strikingly beautiful parts of the eclipse will be near the beginning and the end of totality. If the sky is clear, have an early dinner and go to a dark viewing site with a low eastern horizon. Be there in time for the bizarre 6 p.m. moonrise, and do not leave at least until totality begins 44 minutes later.

Use binoculars to fully experience the beauty of the Moon in eclipse, and share this rare celestial spectacle with a child. It will be a real outer-space

event, possessing the magic of reality, a feature lacking in any video game or TV image.

The Naked-eye Planets

Mercury appears in the evening twilight in late January and early February. This is a particularly favourable time to see Mercury because it can be found low in the west to the lower right of brilliant Venus from about January 28 until February 7. Look about 5:50 p.m. (20 minutes later by February 7).

Venus emerges from behind the Sun, very low in the southwestern evening twilight during December. During January, February, and March Venus moves higher in the evening sky and shifts into the west and then northwest. Venus is unmistakable: it is the brightest star-like object in the sky, appearing either in the west after sunset or in the east before dawn. During its evening appearances (as in the first half of 2007) it is often called “the evening star.” Venus will pass between Earth and Sun in August to reappear as the “morning star” next autumn.

Mars spends much of 2007 low in the pre-dawn sky as Earth gradually overtakes it in our faster orbit. Not until November will Mars become an obvious presence in the evening sky. On Christmas Eve 2007, Earth finally catches up to and passes the red planet (see the December page on your 2007 BNS Calendar).

Jupiter spends December 2006 and the first three months of 2007 low in the southeastern morning sky, rising in the hours between midnight and dawn. On June 5 Jupiter will be at opposition, closest to Earth, brightest, and in the sky all night long.

Saturn is well-placed in the sky this winter. In December it rises in mid evening. It is at opposition on February 10, when it is in the sky all night long. Saturn lies between the constellations Leo and Cancer, high in our midnight winter sky.

The Orion Arm on a Winter Evening

Our Sun and its system of planets, comets, asteroids, dust, and meteoroids reside on the fringes of a suburb of the Milky Way Galaxy, far from the central downtown area of our great Milky Way city. This suburb is called

the Orion Arm. On winter evenings Earth is on that portion of its orbit where its night side faces into the Orion Arm. When you look into the sky on a clear, dark January evening you view the Orion Arm with its multitude of bright stars. Among the brightest are Sirius, Procyon, Pollux, Castor, Capella, Aldebaran, Bellatrix, Betelgeuse, and Rigel, all within 800 light-years of the Sun, nearby streetlights of the Orion Arm suburb. Visible beyond them is a softly glowing band of light, our edge-on view of more distant suburbs, the outer portion of our galaxy with star clusters set against the foggy glow of billions of more distant suns.

It is sobering to reflect that the light of all the fires that have burned during clear nights on Earth since the time of the Roman empire is still within the Orion arm. A light beam from Earth requires twenty-five thousand years just to reach the centre of our galaxy.



Blomidon Naturalists Society

2007 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	\$15.00	\$ _____
_____	Family (number of family members _____)	18.00	\$ _____
_____	Junior (under 16 years)	1.00	\$ _____
_____	Nature Nova Scotia membership	5.00	\$ _____
 Items for Purchase			
_____	2007 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

