

Blomidon Naturalists Society



SPRING 2009 NEWSLETTER

Volume 36 · Number 1

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



RICHARD STERN

Bald Eagle

The Blomidon Naturalists Society

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BNS Newsletter

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BNS 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:

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Digital photographs should be submitted to
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**Submission deadline for Summer:
June 12, 2009**

Out and About

Jean Timpa, editor

With winter having settled in rather solidly in November there has been little out and about with me, but some of our membership has sallied on, quite enjoying the challenges, changing scenery, and new ways to track, literally, our bird and mammal populations by using the frequent new-fallen snows. Consider the “green” winter bird list that Bernard Forsythe was able to construct from December 1 to the end of February by walking every day. It not only gave him a new outlook on how to do a very-well-established count here in Nova Scotia, but it saved him a lot of car expenses, saved the environment from a much larger footprint than he usually makes, and gave him daily exercise. We all need to figure out new ways of changing our lifestyles to help not only ourselves but our planet, too.

Since November our world has become a much different place with the economic recession grinding down upon us. One of its drastic effects was to quell the interest in the prominent environmental problems of the world, especially climate change. Instead, misled governments continue to urge citizens to get out to the stores and spend, spend, spend! Going back to our old ways – at a time when we could perhaps make a transition more easily and more naturally – to less consumerism is certainly necessary if we are going to take the pressure off dwindling resources and increased pollution. If there is money to spend it should be on the greenest items we can find or on the companies that produce them, not on the old habitual, obsolescent products. Our governments need to spend much more money on mass transportation, especially trains and ferries.

We also have to protest the latest from our governments, which intend to reduce drastically the environmental review processes

when building new infrastructure. On March 17, the Canadian Press reported on an announcement made by Environment Minister Jim Prentice in Calgary: “The new rules will ‘focus our resources’ by cutting down on ‘unnecessary’ environmental assessments for projects the government knows won’t have environmental consequences.” Such statements show an utter lack of understanding of what environmental assessments accomplish. Second guessing with eyes in the backs of their heads is not one of the recommended methods of finding out the facts! Such actions will also eliminate more jobs that might otherwise have been created for those people who do such surveys. Somehow we must restart the concerns for the environment and become more adamant than ever that much needs to be done very quickly concerning all aspects of environmental degradation. Canada has a miserable and embarrassing record of non-compliance and lacklustre interest in such problems among the rest of the nations of the world.

ACKNOWLEDGEMENTS

Many thanks to all who have helped BNS sail along over the slippery slopes of winter weather. We had to postpone one meeting. On the day of the makeup meeting, there was freezing rain all afternoon. Nevertheless, the intrepid Sharon Stratton insisted she could come all the way from New Glasgow and back that night to present to about 30 of us a most wonderful talk and picture show about life in Alberta fire towers. Her book *Between Forest and Sky: A Fire-tower Journal* is for sale at Box of Delights bookshop in Wolfville. It has been the kind of winter when most of us would rather have hibernated by the fire, but you have come out to continue all the good works of BNS in various capacities.

Board of Directors Report – Spring 2009

by Rick Whitman, BNS president

First of all, I should thank the members for the trust you have shown in asking me to serve as your president. I will work to meet your expectations but realize that I have a long list of rather big shoes to fill.

Your board met again on March 5. Ed Sulis has completed the transfer of the Society archives to the archivist at Acadia. I am her current contact for advice. They already receive the Newsletter and our secretary will forward a complete set of minutes from recent years. We will be asking members to collect news items that relate to BNS, and we would be pleased to hear from a volunteer to serve as BNS archivist. There must be someone who would enjoy doing this.

Bill and Brenda Thexton served the Society in many ways for many years. They provided a home for board meetings, were directly involved in producing the Newsletter, served as our archivists, and were always active in other BNS programs. In sincere appreciation of their long-term support, the board presented a beautiful book on world birds to Bill and Brenda, at their home, on February 28.

Our finances are in good shape, but our membership is down. We have 56 memberships from 2008 that have not yet been renewed for 2009. The board is very concerned about this, and not just for the financial implications. Membership is the core of any group, and we would hope that we have met your expectations. If not, please let us know. A “final notice” (the third notice) will be enclosed with this Newsletter for unpaid memberships only. The board realizes that these may have been missed – even some board members were not absolutely certain of their status.

Patrick Kelly reported that the BNS program for evening meet-

ings and seasonal outings is as full as normal through the end of June. I feel that Patrick does a great job on this critical job for BNS. If you have any suggestions for future speakers or field trips I know he would like to hear from you.

Darrell Slauenwhite reported that he attended a meeting of the Green Dragon youth program committee, led by Harold Forsyth, and that plans are well underway for the 2009 program. They have applied to five sources for funding, and the board agreed that BNS will also be able to give significant support as needed. The board considers this a key activity for BNS.

The board also discussed honorary memberships (we are open to input), the Parks Are for People program (we have Jim Wolford's Blomidon Park walk re-submitted), the Grand Pre UNESCO project (we have nominated Roy Bishop for tidal and Bay of Fundy expertise and previously provided publications and contacts), and the Annapolis Valley schools science fair (we contribute two prizes of \$50; John Belbin serves as a judge).

These are the highlights of your board's activities. Please approach any board member with suggestions or concerns.

CLUB NOTES

Upcoming Events

MEETINGS

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

Monday, April 20, 2009 – *The Role of Turbine Characteristics in the Impact of Tidal Power Generation on Pelagic Marine Organisms*. Dr. Mike Dadswell will tell us about research done on the Annapolis Tidal Power Turbine from 1981 to 1996. The purpose of the research was to determine the immediate and long-term impacts on the fishes of the river and estuary. Mike will explain the turbine characteristics of the Annapolis plant along with their effects on organisms. Then he will discuss the turbine characteristics of recent open-concept tidal turbines and their potential effect on marine organisms. In conclusion we will consider the overall potential impact of tidal turbines on the pelagic marine organisms of the Bay of Fundy (fish, seals, whales) in light of their ecology and known marine migrations.

Mike Dadswell is a professor of biology at Acadia University. He is an expert on a number of Atlantic fish and shellfish species as well as aquaculture and tidal turbine impacts on fish. His research and publications include the ocean migration patterns of Atlantic Salmon, American Shad and Striped Bass; the biology of Atlantic Sturgeon, Shortnose Sturgeon, and Dogfish Shark in Minas Basin and the Bay of Fundy; and the interaction of fishes and fisheries to anthropogenic changes such as the Canso Causeway and the development of tidal power.

Monday, May 18, 2009 – *Discovering Belize*. In March 2008 Liz and Richard Stern spent ten days in Belize on a guided tour emphasizing birding and Mayan ruins. They also crossed into Guatemala and spent two days at the greatest of all the sites, Tikal. They also spent a day and half on the island of Ambergris Caye. Their guides were experts on both the bird life and the Mayan history and gave them plenty of opportunity to enjoy and photograph both. [NOTE: *This meeting will be held in Beveridge Arts Centre, Room BAC241, as the auditorium in the Irving Centre is booked that evening.*]

Monday, June 15, 2009 – *In Search of the Wild Banana*, by Marian Munro. Tired of mowing your lawn? Curious about those juicy red berries? Want to add variety to your late summer menu? Wild

bananas, watercress, cranberries, Saskatoon berries, and a host of salad greens may be found not far from your front door. Many of our native wild plants and plant immigrants are edible. Some sport fanciful names such as cattails and ostrich ferns, crows-feet, and checkerberry. Others are even sold in grocery stores. All are yours to gather if you know where to look, what to eat, and, of course, what *not* to eat! Of 1,600 or more different plants growing wild in the Maritimes, 10 percent or more may be used in soups, salads, desserts, and beverages.

Marian Munro, disillusioned with a career in farming, decided in 1985 to return to university. Having been a member of BNS since 1983, she became a biology student at Acadia University in the fall of 1987, first as a part-time student for five years, then full-time in 1992, and graduating in 1996. Her Acadia tenure owes its longevity to her revision of *Roland's Flora of Nova Scotia*, a ten-year project. She has been the curator of botany at the Nova Scotia Museum of Natural History since 1999. Marian is a self-proclaimed grazer, not a gardener.

FIELD TRIPS

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

Saturday, April 25, 2009 – *Earth Day Native Plant Sale*. Help us celebrate Earth Day at the Harriet Irving Botanical Gardens at Acadia University. Learn more about gardening native, purchase native plants for your home garden, and take an early spring tour of the gardens. Plant material grown by our volunteers from seed collected in the gardens will be available for sale as well as material from several local nurseries. One of the best ways to attract local wildlife is to plant native vegetation. A variety of information booths from local groups will be displayed in the main lobby. All welcome. The plant sale runs from 9 a.m. to 12 noon.

Saturday, April 25, 2009 – *Beginning Birders' Trip (Annapolis Valley)*. Leader: Wayne Neily (765-2455, neilyornis@hotmail.com). This is one of a series of province-wide trips organized by the Nova Scotia Bird Society specifically for people who are either curious about birding as a hobby or who are just starting out. Meet at 8 a.m. at the Tim Hortons in Greenwood. Bring binoculars, a field guide if you have one, sturdy footwear, and a snack. No rain date. Pre-registration is necessary!

Saturday, April 25, 2009 – *Herbert River Canoe Trip*. Patrick Kelly (472-2322, patrick.kelly@dal.ca) will be leading this trip. The Herbert River is fairly easy with lots of water at this time of the year, and it covers a great variety of terrain. The trip will be two to three hours long, depending on our pace. Bring life jackets, canoe or kayak, and paddles. If you have access to a life jacket but not a canoe, there will likely be extra room in one of the canoes. Check with the leader to be sure. Meet at the Newport rink parking lot at 9:30 a.m. Take Exit 5 from Highway 101 and follow Highway 14 east for about 10 km to the village of Brooklyn. At the cenotaph, keep left and follow Highway 14 north for just under 1 km. At the intersection (Petro Canada station), Highway 14 turns right. Continue straight on Highway 215 (Note the YIELD sign. You do NOT have the right of way!) The rink is on the right as soon as you exit the intersection. We will be leaving some cars there as we will be putting into the river where it is crossed by Highway 14.

Sunday, April 26, 2009 – *Early Spring Birds*. Leader: Jim Wolford (542-9204, jimwolford@eastlink.ca). This will be a joint trip with the Nova Scotia Bird Society, pond hopping for ducks and early migrants. We might visit Wolfville Ridge first for Barred Owls before the pond hopping. Meet at the town wharf off the east end of Front Street in Wolfville at 10 a.m. Dress warmly and bring a lunch. No rain date.

Tuesday, May 5, 2009 . . . and Every Tuesday – *Acadia University Woodland Trail Biodiversity List*. For a third year we will take a walk

every Tuesday evening throughout the spring and summer to look for flowering plants, nesting birds, fungi, butterflies, dragonflies, etc. These walks are a long-term project in cooperation with the K.C. Irving Environmental Science Centre to observe the changes in biodiversity over the seasons and over the years. Everyone is invited to participate. Come for one week or every week. You don't need to be an expert, but we need lots of people to help spot and identify the different forms of natural history. Some weeks we will have a special leader with an emphasis on a specific area of natural history. If you would like to lead a walk or attend one with a particular emphasis, call Melanie at 585-1916. Meet at 6:30 p.m. at the main entrance to the Harriet Irving Botanical Gardens on University Avenue.

Saturday, May 9, 2009 – *Nova Scotia Bird Migration Count*. Everyone interested in counting birds is invited to participate in this annual spring event, the 16th annual North American Migration Count. This is a wonderful way to get out for a day's enjoyment while discovering possible rarities visiting the Valley. Hans Toom is the provincial coordinator. For more information, see: <http://hanstoom.com/Archive/Projects/NAMC/Index.html>. To get involved, call your local Annapolis Valley coordinator:

HANTS WEST (FALMOUTH AREA)

Patrick Kelly (472-2322, patrick.kelly@dal.ca)

KINGS COUNTY (WOLFVILLE AREA)

Judy Tufts (542-7800)

KINGS COUNTY (KINGSTON AREA)

Sheila Hulford (765-4023)

ANNAPOLIS COUNTY

Hans Toom (868-1862, htoom@hfx.eastlink.ca)

[NOTE: Anyone interested in helping coordinate Annapolis County, or parts thereof, as a regional representative, would be most welcomed by Hans.]

Saturday, May 16, 2009 – *Cape Split Hike 1*. Make a trip to Cape Split with leaders Sherman Williams (542-5104), Jim Wolford (542-9204), and Patrick Kelly (472-2322). There will be interpretive stops along the way. Spring wildflowers and birds should be abundant. Meet at the Wolfville waterfront at 8:15 a.m. or at the start of the trail in Scots Bay at 9 a.m.

Saturday, May 16, 2009 – *Palmeters Woods*. Judy Tufts (542-7800) and Nancy Nickerson (542-9332) will lead a walk through these woods, behind Evergreen Home for Special Care (655 Park St.), located in the western end of Kentville. Come and explore this little green gem with us: look and listen for local birds, search the woodland floor for flora and fauna. There will be a good chance to see a variety of warblers and other migrants, and fascinating woodland plants. Meet at the Wolfville waterfront at 7:30 a.m. or at the parking lot behind Evergreen Home for Special Care in Coldbrook at 8 a.m. Juniors to seniors welcome. (The early meeting time will give more time to hear bird songs as they are most active in the early morning.) Rain date: Sunday, May 17.

Monday, May 18, 2009 – *Historic Hants County*. This is a Nova Scotia Bird Society field trip led by Suzanne Borkowski (445-2922, sborkowski@hfx.eastlink.ca). Meet at 8 a.m. in the parking lot of Mount Uniacke Estate Park. The main gate will be locked, but the second gate (coming from Halifax) will be open. We will explore some of the grounds at Mount Uniacke, then continue along back-country roads through Hants County. Bring a lunch; we'll eat at Smileys Provincial Park. No rain date.

Saturday, May 23, 2009 – *Blomidon Provincial Park*. In conjunction with Parks Are for People, Jim Wolford (542-9204, jimwolford@eastlink.ca) will lead a walk from the campground about two kilometres to a seasonal pond that has the very rare and beautiful fairy shrimp. We will also see other pond life, spring plants and flowers, and birds. We will visit a lookoff toward Five Islands Park, across the

Minas Basin. Meet at the Wolfville Waterfront at 9:15 a.m. or at the Blomidon Park registration building at 10 a.m.

Saturday, May 30, 2009 – Cape Split Hike 2. Make a trip to Cape Split with leaders Sherman Williams (542-5104) and Jim Wolford (542-9204). There will be interpretive stops along the way. Spring wildflowers and birds should be abundant. Meet at the Wolfville waterfront at 8:15 a.m. or at the start of the trail in Scots Bay at 9 a.m.

Saturday, May 30–Sunday, May 31, 2009 – Nova Scotia Bird Society Out-of-area Meeting/Atlas Workshop, with speakers Becky Stewart (atlas coordinator), Patrick Kelly (Region 16), and Paul Gould (Region 17).

This year's NSBS out-of-area meeting/atlas workshop will be held at the Mountain Gap Inn near Digby and will promote Region 16 (Annapolis Valley–Digby Neck) and Region 17 (Southwest Shore). The meeting will start at 7:30 p.m. in the Annapolis Room, followed by an owl prowl. Sunday morning at 6 a.m. there will be a point count demonstration, followed by breakfast. Field trips will be led by Pat Kelly and Paul Gould. To book your room for Saturday night, go to: www.mountaingapinn.ca and click on "Around the Inn." This meeting/workshop is open to everyone.

Saturday, June 13, 2009 – Herbert River Trail. Patrick Kelly (472-2322, patrick.kelly@dal.ca) will be leading this walk for the Nova Scotia Bird Society. This easy walk follows the former rail bed that runs from Windsor to Truro via Kennetcook. It runs along the Herbert River for a good part of its length. It is a great walk for spotting both birds and floodplain vegetation. Meet at the Newport Rink parking lot at 9 a.m. Take Exit 5 from Highway 101 and follow Highway 14 east for about 10 km to the village of Brooklyn. At the cenotaph, keep left and follow Highway 14 north for just under 1 km. At the intersection (Petro Canada station) Highway 14 turns right. Continue straight on Highway 215 (Note the YIELD sign. You do NOT have the right of way!) The rink is on the right as soon as you exit the

intersection. Bring insect repellent. We should be done by lunch.
Rain date Sunday, June 14.

Sunday, June 14, 2009 – *Nature Nova Scotia Annual General Meeting*. This annual event will take place at the Grand Pre Historic Site centre from 8 a.m. to noon. As part of the morning, Parks Canada species at risk scientist Stephen Flemming will speak about species at risk and stewardship. Watch for notice of local field trips in the afternoon and also for notice of activities the previous day (Saturday, June 13) in conjunction with the Nova Scotia Nature Trust.

Friday, August 21–Sunday, August 23, 2009 – *NOVA EAST 2009*. 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. NOVA EAST is hosted jointly by the Halifax Centre of the Royal Astronomical Society of Canada and the Minas Astronomy Group. More information can be found at <http://halifax.rasc.ca/ne>.



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Green Dragon Nature Camp

by Harold Forsyth and Glenys Gibson

A direct exposure to nature is an essential part of childhood. Unfortunately, the amount of time children spend discovering nature is rapidly declining. This change in youth behaviour has a number of sources, including decreased access to natural spaces, parental concerns about safety, and competition from “screen” time. As naturalists we are concerned about this general trend. Knowledge of, and engagement with, the natural world not only sustains our personal growth through imagination, creativity, and self-confidence, it also supports a passion for the environment that forms the critical foundation for local action and stewardship.



CHARLANE BISHOP

Exploring the Fundy mud at last year's Green Dragon Nature Camp

The Blomidon Naturalists Green Dragon Nature Camp partners with local communities and now, in our fifth year, reaches out to more than 300 kids each summer. We provide the naturalists who implement the program and busing to Blomidon and Smileys Provincial Parks, Blue Beach fossil area, and the Harriet Irving Botanical Gardens. Funding is always an issue, and all financial contributions to the program are greatly appreciated and tax deductible.

Our goal is to offer youth an exciting outdoor learning experience focusing on natural history that will spark a life-long enthusiasm for nature and the environment.

NATURAL HISTORY

PlantWatch 2009 – Follow a Nova Scotia Tradition: Become a Citizen Scientist

by Melanie Priesnitz

The first spring bloom of Rhodora (*Rhododendron canadense*) was observed in Kings County, Nova Scotia, on May 22, 1905. Almost 100 years later, 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 superintendent of schools Dr. Alexander Howard McKay, recorded more than 200 natural events each year. One of these events included documenting the timing of spring blooms. In 1996 a similar program called PlantWatch was started in Nova Scotia. This program has grown in leaps and bounds and today is a national program coordinated by Environment Canada's Environmental Mon-



KC IRVING ENVIRONMENTAL SCIENCE CENTRE

Melanie Priesnitz, Nova Scotia PlantWatch coordinator

itoring and Assessment Network and Nature Canada. Volunteers across the country now record the first spring blooms of a variety of species, including the common dandelion to the more unusual Bearberry.

All of the data collected by PlantWatch volunteers go into a national database accessible to researchers. By tracking changes in blooming dates over time, scientists can determine how vegetation is responding to climate change. Further research has to be done to discover why plants such as Rhodora bloomed 13 days earlier in 2005 than in 1905. Is this as a result of 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 present-day PlantWatch data. This is where we need *your* help, and we encourage nature enthusiasts to join in this network of citizen scientists.

Participating in PlantWatch is a great way for families and individuals to make an important contribution to science while getting outside and taking in the beauty of our natural world. To become a citizen scientist, register with the PlantWatch program and start

watching and recording the first signs of spring in your region. We watch 15 species in Nova Scotia and currently have 150 volunteers. We always need more data and could really use the help of Blomidon Naturalists Society members. For more information call 585-1916 or visit our website: www.plantwatch.ca. Spring is upon us, so get out there and start PlantWatching!

NOTE: *Melanie is the conservation horticulturist at the Harriet Irving Botanical Gardens and Nova Scotia PlantWatch coordinator.*

CLUB NOTES

Annual Show and Tell

by Jim Wolford

JANUARY 19, 2009 – About 50 people were present, many of them expecting to see Jeff Ogden give his talk on ticks, which had been rescheduled for February.

SIGHTINGS

David Dermott reported lady beetles in his house since October/November (note: they are probably the multi-spotted Asian species). ¶ Someone reported seeing a kingfisher. ¶ Luke DeCicco saw a Long-eared Owl on January 11. ¶ Richard Stern has a pair flickers living at his home this winter. ¶ Barry Yoell reported that one of his climbing plants in aquatic containers had grabbed an insect. ¶ George Forsyth saw a variety of mammal tracks in his woods today and a mammal swimming in a puddle near Shur-Gain. ¶ Andrew Steeves reported lots of mammal signs, especially rabbit tracks and porcupine chewings. ¶ Apparently there have been lots of eagles at Church St. and Highway 358, as many as 75 at once when food is put out. ¶ Alison

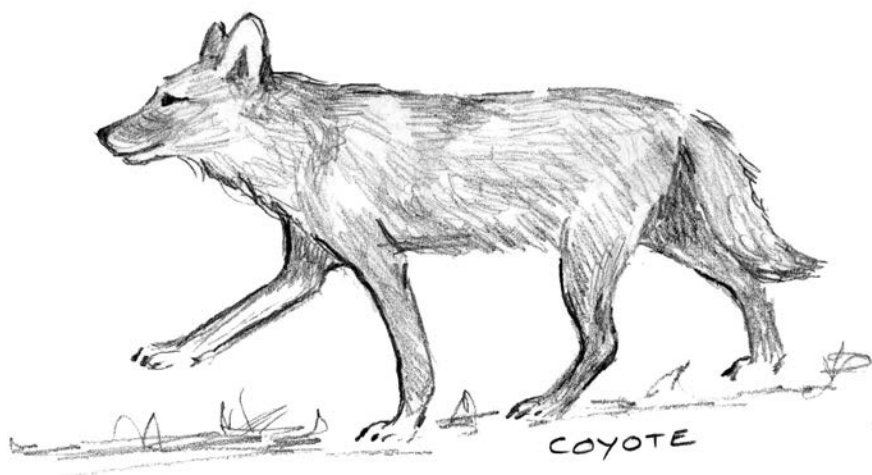
Bogan reported on the Wolfville Christmas Bird Count (see report p. 28). Observers also saw mink, flying squirrels, and coyotes. ¶ Bernard Forsythe reported a coyote kill of a 6-point buck deer. Someone had cut off the head. ¶ Rick Whitman reminded us that the 21st Parks Are for People program of the Provincial Parks division of the Department of Natural Resources will happen this year. Sandra Fraser (DNR, Halifax) is looking for more walks in provincial parks or wilderness areas – see Rick for contact information) Rick also mentioned that Grand Pre is being nominated as a UNESCO World Heritage Site.

PRESENTATIONS

Bernard Forsythe spoke about his winter bird list. From December 1, 2008, to January 14, 2009, only halfway through the three-month count period, Bernard is already up to 67 species – pretty darned good for a guy on foot. In past years his trips were province-wide, but since recent high gasoline prices made him rethink this practice, Bernard now restricts himself to half-day walking expeditions from his home. He had 16 species on Day 1, including Jim Wolford's yard and feeders and Cecil Pulsifer's nature trail in east Wolfville, along the RR tracks. By the end of Day 2, he had 34 species listed. On Day 3 he saw White-winged Crossbills and Red-breasted Nuthatch (very rare here this year) and a Brown Creeper in Neary Pines. He's seen a mockingbird, a Peregrine Falcon, an Iceland Gull, and two Dunlins at Wolfville Harbour. Other species include Common Mergansers and goldeneyes (including a pair of Barrow's) near Melanson Bridge, a Northern Goshawk in his own yard and the Eastern Towhee in Jim Wolford's, three American Pipits in west Wolfville (where he also watched a gorgeous Coyote), a Ruby-crowned Kinglet on Paul Elderkin's land in Greenwich, and orioles at Sheila McCurdy's feeders.

Pat Kelly showed a beautiful calendar full of birds.

Mary Anne & Ed Sulis displayed BNS stuff for sale (this display will be at each meeting).



Andrew Steeves gave a slide show of seven days in the Tobeatic (May 25 to June 1, 2008).

Richard Stern showed slides from a trip to Arizona in November 2008: Sedona (red sandstone outcrops), Rock Wren with food, Oak Creek Canyon, a meteor crater, Grand Canyon (South Rim), Western Bluebird, rafters on Colorado River, a profile of the canyon and strata, White-crowned Sparrow, the southern desert near Tucson, Great Horned Owl, Vermilion Flycatcher male, Phainopepla, Burrowing Owl, Prairie Falcon, Sage Sparrow, Yellow-headed Blackbirds, Cooper's Hawk, Pyrrhuloxia, various cacti, including painful chollas, and an exhibition of blown and coloured glass among the cacti and other vegetation.

David Dermott showed slides of eagles and nest on Gaspereau Lake in March and May (eaglets) and July (three big fledglings), HFN waterfalls field trip, pickerelweed in bloom on Gaspereau Lake, kayaking on Minas Basin near Boot Island, flying shorebirds, beach and stone cross on Gaspereau Lake, Minas Basin eroding sandstone formation/island, Shingle Lake, eroded holes in rock, Luna Moth near Caledonia, otters (adult with two large pups) on Gaspereau Lake, winter on Black River Lake, lake near Bridgewater with golf balls on the ice (!), weird vertical ice formation on lake, and gathering cranberries in bike helmets on Cranberry Lake.

Ed Sulis showed photos of Ruddy Turnstone in Bermuda and visitors to his home on Canaan Avenue in Kentville: juncos, Purple Finches, Red-bellied and Pileated Woodpeckers, Deer Mouse, two deer, Raccoon in tree cavity, Red Squirrel, male cardinal, goldfinch, chickadee, and Mallards.

Following the meeting, Rick invited people to visit the Acadia herbarium with the curator, Ruth Newell.

NATURAL HISTORY

Some Information on Wild Bees

by Darrell Slauenwhite

When I started this article, I thought of bees simply as honeybees or bumblebees. Little did I know that bees belong to the third-largest insect order, or that there are about 800 species of wild bees in Canada and that Nova Scotia has 157 species! The honeybee (*Apis* spp.) is not native to Canada but the bumblebee (*Bombus* spp.) is and it is found all across our land. This article will deal with our native wild bees.

Native bees include digger bees, bumblebees, sweat bees, leafcutter bees, carpenter bees, and mason bees. They come in a variety of colours such as metallic red, black, blue, green, and copper. They don't usually have distinctive spots or bands.

Other than the bumblebee these are solitary bees. Some nest underground in burrows they dig themselves. Others use existing holes, and some dig into wood to make their nests. The ground diggers prefer dry, open soil with little vegetation in a sunny location close to a food source. Unlike honeybees, native bees do not fly great distances for food.

Soil-nesting bees are not social – each female digs her own burrow

– but they are gregarious and often build their nests close to one another. There is no nest guarding. As a result they tend to be less aggressive than the honeybee.

Wild bees first fly in early spring, and mating for most takes place shortly after that. In at least one group the female mates in the fall, overwinters in the burrow, and lays her eggs in the spring.

Eggs are laid in cells in the burrow along with some food, honey, or a pollen ball. Eggs hatch in early May and the larvae grow in the cells all summer. Pupation usually takes place in late summer. With some species adults develop in the fall and spend the winter in the burrow; some overwinter as larvae. A single generation is completed each year.

It is said that as much as one-third of our food depends directly on the work of bees. Some crops such as squash would not develop without the squash bee. (If you grow squash look inside a blossom in the afternoon and you just might find a male squash bee asleep at the bottom of the flower.)

Honeybees are a huge industry, but my research suggests that most pollination is carried out by wild bees. The digger bees pollinate a wide variety of plants. These drab, solitary, rarely noticed bees could be the most abundant wild pollinator.

Even if we don't grow crops that need bees to pollinate there are several reasons to provide habitat. Wild bees provide essential pollination services to native trees and flowering plants, which provide habitat for beneficial animals. Unsprayed strips of land planted with a diverse mix of native wildflowers harbour more birds and beneficial insects than do traditionally managed strips.

Honeybees need warm, dry conditions to be at their best. Some wild bees feed before full light in the morning, and others feed late in the afternoon long after the honeybees are back in the hive, so they provide pollination services for a longer time than do the honeybees. During cold, wet weather the honeybees are confined to their hives,



Bumblebee

yet some wild bees will feed even during wet conditions. In short, if wild bees are present along with honeybees we will likely have a higher rate of pollination.

Since our wild bees developed here long before our food plants were set out in fields, their survival depends on having food available both before and after our food crops are flowering. Wild bees, unlike honeybees, do not fly great distances to forage, so we must provide native forage plants with a long blooming period or a succession of flowering plants that they can reach.

Some wild plants you could plant to help the bees are Red Maple, raspberry, sumac, willows, juneberry, asters, monarda, Borage, clovers, coneflowers, calendula, Evening Primrose, and sunflowers. These could be part of a formal garden, or if you have a larger lot plant them as a wild meadow. With these plants in your yard more birds and butterflies will also appear.

In researching this article my eyes were really opened. I had no idea there were so many bee species in Nova Scotia or that they were so important to us. With the collapse of many of the honeybee hives the wild bees will become even more important in our food production.

So what to do? You can plant a variety of local native plants that vary in colour, size and shape, and blooming season. Be sure there is a supply of water, mud, and other building materials. Don't clear away all the native plants that now grow in and around your property, and avoid using both pesticides and insecticides, thus giving these wild bees a better chance to keep on providing us and others the food we need.

SOURCES: Canadian Wildlife Service, David Suzuki Foundation, Pollination Canada, *Canadian Journal of Arthropod Identification* 03 (September 2007), Delaware Department of Agriculture.

Snow Fleas

by Barry Yoell

Only the most observant and keen naturalists have noticed the recent explosion in the population of springtails in this part of the world. There are billions of them, almost everywhere one looks – if one looks very carefully. Springtails? I hear you cry. What and where are they?

Stay focused and all will be revealed.

Springtails are 1–2 mm insects, arthropods in the Collembola group, properly called *Hypogastrura nivicola* and most commonly known as Snow Fleas. They are not fleas, but wingless scorpion flies (a rather alarming name for a harmless insect).

At this time of year they gather in vast numbers on the surface of the snow, often near trees, or in hollows in the snow; one of the most obvious sites is in cross-country ski tracks. They are mobile, and can be seen to jump several inches, using a “springtail” device. Two “tails” are tucked under the abdomen, held in place with minute hooks, which when released allow these tails (properly called furcula) to snap back, catapulting the Snow Flea into the air. They seem to have no control over the direction of the jump and often land back whence they came! Perhaps just jumping for joy?

The Snow Flea is truly ubiquitous, resident wherever there is snow. It is one of the few insects to permanently live in both the Arctic and Antarctic.

Snow Fleas are decomposers, eating decaying organic material, bacteria, fungi, algae, pollen, roundworms, and rotifers. They mate in spring, eggs are laid in the soil, and the resulting nymphs moult several times and are dark blue adults by winter. In the summer, they

live in leaf litter and soil and around water – and indeed can actually walk on water.

One could be excused for being less than impressed by this tiny, inconspicuous fellow. However, recent research has shown that the antifreeze produced by the Snow Flea to allow it to function below zero degrees C could be extremely valuable in storing human organs for transplantation, and also for making superior ice cream.

Only goes to show that good things can come in very small packages.

NATURE COUNTS

Wolfville Christmas Bird Count 2008

by Alison Bogan, coordinator

SUNDAY, DECEMBER 14, 2008 – The weather was favourable this year, with mainly sunny conditions and reasonable temperatures for the 44 field observers. The observers, in 24 teams, logged almost 141 hours and 900 km on foot and by car. Additionally, 87 feeder watchers added their observations. More than 34,000 birds were counted, with 86 species reported. The rarest bird was a Le Conte's Sparrow, a first for the Wolfville CBC and, I believe, for the province. Other rarities were Lesser Scaup, Long-tailed Duck, Cooper's Hawk, Snowy Owl, American Pipit, Orange-crowned, Palm, and Pine Warblers, and a Rusty Blackbird. The Audubon website tracks the maximum number of different species reported in the last 21 counts, and on that basis we reported the most Mallards, American Widgeon, Red-throated Loons, Barred Owls, Northern Flickers, Blue Jays, White-breasted Nuthatches, American Pipits, Pine Warblers, White-throated Sparrows, Northern Cardinals, and Baltimore Orioles. We were well below the historical maximum counts in the thousands

of starlings, crows, Herring Gulls, and Greater Black-backed Gulls.

The success of the Wolfville CBC depends on the efforts of many people. My thanks to the field observers and feeder watchers for their efforts in observing and reporting their results. Once again Jim Wolford undertook the mammoth task of coordinating the feeder watchers and collating their observations. Larry Bogan provided invaluable technical assistance in collating results and posting



them on the BNS website. Thanks to Liz and Richard Stern for hosting the tally potluck, to Judy Tufts for helping to organize the food, and to all the people who contributed to the feast.

I hope many of you will consider being part of this important citizen science project in 2009.

Species	Field Count	Feeder Count	Total Count
Red-throated Loon	4	—	4
Common Loon	1	—	1
Great Blue Heron	1	1	2
Canada Goose	1714	125	1839
Black Duck	2779	166	2945
Green-winged Teal	5	—	5
Mallard Duck	829	—	829
American Wigeon	6	—	6
Northern Pintail	1	—	1
Common Eider	8	—	8
Lesser Scaup	1	—	1
Common Goldeneye	2	—	2
Common Merganser	22	—	22
Red-breasted Merganser	2	—	2
Long-tailed Duck	2	—	2
Surf Scoter	1	—	1
White-winged Scoter	8	—	8
Bald Eagle (adult)	80	13	93
(immature)	66	6	72
(unknown)	—	2	2

(Continued) Species	Field Count	Feeder Count	Total Count
Northern Harrier	1	—	1
Sharp-shinned Hawk	10	3	13
Cooper's Hawk	1	—	1
Red-tailed Hawk	112	16	128
American Kestrel	1	—	1
Merlin	1	—	1
Peregrine Falcon	3	—	3
Rough-legged Hawk	2	1	3
Ring-necked Pheasant	163	82	245
Ruffed Grouse	6	—	6
Ring-billed Gull	163	—	163
Herring Gull	2544	219	2763
Iceland Gull	3	—	3
Great Black-backed Gull	755	5	760
Lesser Black-backed Gull	1	—	1
Rock Pigeon	332	8	340
Mourning Dove	625	404	1029
Snowy Owl	1	—	1
Barred Owl	3	3	6
Short-eared Owl	2	—	2
Downy Woodpecker	41	54	95
Hairy Woodpecker	25	31	56
Northern Flicker	31	32	63
Pileated Woodpecker	7	1	8
Red-bellied Woodpecker	2	2	4
Horned Lark	216	—	216
Blue Jay	859	336	1195
American Crow	7361	846	8207
Common Raven	242	18	260
Black-capped Chickadee	778	358	1136
Red-breasted Nuthatch	3	3	6
White-breasted Nuthatch	34	28	62
Brown Creeper	1	—	1
Golden-crowned Kinglet	68	1	69
Ruby-crowned Kinglet	1	—	1
American Robin	87	6	93
Mockingbird	2	—	2
American Pipit	49	—	49
Bohemian Waxwing	15	—	15
Cedar Waxwing	4	—	4
European Starling	6857	693	7550
Pine Warbler	1	2	3
Palm Warbler	1	—	1
Orange-crowned Warbler	1	—	1
American Tree Sparrow	38	10	48

(Continued) Species	Field Count	Feeder Count	Total Count
Chipping Sparrow	1	4	5
Savannah Sparrow	11	1	12
Song Sparrow	156	29	185
Swamp Sparrow	1	—	1
White-throated Sparrow	100	56	156
White-crowned Sparrow	—	1	1
LeConte's Sparrow	1	—	1
Dark-eyed Junco	745	476	1221
Snow Bunting	67	22	89
Northern Cardinal	8	18	26
Common Grackle	2	—	2
Red-winged Blackbird	—	5	5
Rusty Blackbird	1	—	1
Baltimore Oriole	—	4	4
Pine Grosbeak	8	—	8
Purple Finch	15	22	37
Red Crossbill	4	—	4
White-winged Crossbill	42	—	42
Common Redpoll	144	5	149
Pine Siskin	42	44	86
American Goldfinch	752	634	1386
Evening Grosbeak	17	1	18
House Sparrow	118	52	170
TOTAL BIRDS	29,215	4849	34,064
TOTAL SPECIES: 86			

FIELD OBSERVERS: Derrick Allerton, George Alliston, Margaret Alliston, Peter Austin-Smith Jr., Sherman Boates, Alison Bogan, Larry Bogan, Soren Bondrup-Nielsen, Richard Cain, Peggy Crawford, George Forsyth, Harold Forsyth, Bernard Forsythe, Jean Gibson Collins, Glenys Gibson, Jamie Gibson, Merritt Gibson, Pat Hawes, Tom Herman, Dennis Hippert, Patrick Kelly, Doug Linzey, Angus MacLean, Stella MacLean, Sheila McCurdy, Laurel McIvor, Randy Milton, Terri Milton, Adele Mullie, Mike O'Brien, Carol Paterson, George Paterson, Ian Paterson, Stan Riggs, Barry Sabean, David Shutler, Peter Smith, Tyler Smith, Sarah Spenser, Richard Stern, Ed Sulis, Judy Tufts, Rick Whitman, Sherman Williams, Jim Wolford, Barry Yoell.

FEEDER WATCHERS: Jim Amos, Helen Archibald, Peter Austin-Smith Sr., Diana Bishop, Sue Bissix, Sherman Bleakney, Linda Brown, Carol Buckley, Nancy Burbidge, Scott Burbidge, Margaret Burton, Jean Caldwell, Andy Cann, Ken Cheslock, Lana Churchill, Sandi Connelly, Chris Cox, Graham Daborn, Debbie Daigle, Jill Davies, Pat Davis, Pat Dix, Joan Eaton, Paul Elderkin, Wendy Elliott, Mary Ellis, George F. Forsyth, Bernard Forsythe, Sandra Forsythe, Hilma Frank, Hedley Fulton, Mary Sue Goulding, Lorna Hart, Avril Harwood, Pat Hawes, Maxine Hill, Bob Horne, Marg Horne, Winnie Horton, Lana Isenor, Sandy Kempton, Jean Leung, Linda Lusby, Jake MacDonald, Del Macinnes, Mac Macinnes, Don Marston, Shirley Marston, Pat Martell, Sheila McCurdy, Rosaleen McDonald, Pat McLeod, Irene Moore, Phil Muntz, Terry Murphy, Edna Mutch, Gary Ness, Nancy Nickerson, Dorothy Perkin, Mary Pratt, Shirley Prescott, Gordon Robart, Linda Sacouman, David Silverberg, Peter Smith, Sandy Stevens, Ed Sulis, Mary Anne Sulis, Hugh Swandel, Bill Thexton, Brenda Thexton, Dianne Thorpe, Jean Timpa, Dave Tracy, Judy Tufts, Gertrude Waseem, Mohommed Waseem, Dave Webster, Jacquie White, Sharon Harris Whitney, Jim Wolford, Jean Wood, Wayne Woodman, Don Wright, Shirley Wright, Elizabeth Yoell, Sheila Young.

NATURE COUNTS

West Hants Christmas Bird Count 2008

by Patrick Kelly, coordinator

DECEMBER 28, 2008 – Compared with 2007, there are some interesting changes. While the total number of party-hours is about the same as last year, the total distance travelled is down about 80 km. The total number of species for 2008 was down to 47 from 55 the previous year, yet the total number of birds counted was up by about 10 percent, from 10,115 in 2007 to 11,215 this year.

We missed the following species from the previous year: Bufflehead, Ruffed Grouse, Northern Harrier, Peregrine Falcon, Lesser Black-backed Gull, Glaucous Gull, Horned Lark, Boreal Chickadee, Northern Mockingbird, Chipping Sparrow, Vesper Sparrow, Snow Bunting, Baltimore Oriole, White-winged Crossbill, and Hoary Redpoll. These losses were partially offset by species that were not seen in 2007: Common Goldeneye, Merlin, American Woodcock, Gray Jay, Brown Creeper, Red-winged Blackbird, and Red Crossbill. That is one of the great things about Christmas bird counts: You never know what you are going to come across.

I would like to thank everyone who participated this year, and the Woolavers for hosting the after-count potluck.

Species	Count		
Canada Goose	210	Black-capped Chickadee	633
American Black Duck	230	Red-breasted Nuthatch	8
Mallard	17	White-breasted Nuthatch	32
Common Goldeneye	4	Brown Creeper	6
Ring-necked Pheasant	147	Golden-crowned Kinglet	28
Bald Eagle	21	American Robin	65
Sharp-shinned Hawk	2	European Starling	4,390
Red-tailed Hawk	56	Bohemian Waxwing	99
Rough-legged Hawk	3	Cedar Waxwing	11
Merlin	1	American Tree Sparrow	14
<i>hawk species</i>	1	Song Sparrow	21
American Woodcock	1	White-throated Sparrow	8
Ring-billed Gull	40	<i>sparrow species</i>	8
Herring Gull	436	Dark-eyed Junco	229
Great Black-backed Gull	68	Red-winged Blackbird	2
Rock Pigeon	372	Pine Grosbeak	28
Mourning Dove	789	Purple Finch	73
Barred Owl	1	Red Crossbill	9
Downy Woodpecker	29	Common Redpoll	265
Hairy Woodpecker	36	Pine Siskin	51
Northern Flicker	17	American Goldfinch	731
Pileated Woodpecker	3	Evening Grosbeak	141
Gray Jay	5	House Sparrow	109
Blue Jay	449		
American Crow	1,214	TOTAL SPECIES	47
Common Raven	102	TOTAL INDIVIDUALS	11,215

Space Pollution

by Roy Bishop

For four thousand million years planet Earth had one satellite, the Moon. It was like that when I was a child. On October 4, 1957, a second satellite began orbiting Earth: Sputnik 1, a shiny metal sphere, about the size of a beach ball, placed in orbit by the former Soviet Union. That precedent-setting autumn day was cool and sunny in the Annapolis Valley, and I was attending engineering classes at Acadia University.

Less than a year later, on August 16, 1958, I saw high in the night sky over southern Ontario the rocket body that had lofted Sputnik 3 into orbit. That large rocket was the first artificial satellite visible to the unaided eye. It tumbled slowly as it drifted across that warm night sky so long ago, its brightness smoothly fluctuating, from that of a bright star to near invisibility, with a seven-second period.

Now over half a century later, Earth is surrounded by thousands of artificial satellites – for weather observations, communications, military purposes, geographic data gathering, measuring ocean levels and temperatures, astronomy, navigation, television transmissions, etc. Hundreds are operational, many are not. More than 10,000 objects are being tracked as they circle like a swarm of bees around Earth. I cannot spend an evening at my telescope without seeing several. Even unaided-eye views are frequently interrupted by dots of light drifting across the starry vault. The brightest of these is the International Space Station, rivalling the planet Venus when in sunlight above the dark Earth below. Only in the middle of an autumn or winter night do many of those moving lights vanish, eclipsed by Earth's shadow.

February 10, 2009, is another notable date in this story, for on that

day the first known collision occurred between two intact satellites. One was Cosmos 2251, a no-longer-operational Russian military communications satellite. The other was Iridium 33, one of 66 satellites of the worldwide Iridium satellite telephone service. Each was about the size and mass of a small car, orbiting some 800 km above Earth's surface. Their relative speed when they collided was 9 km/s, about 40 times the speed of a Westjet passenger plane. One satellite was moving at approximately 90 degrees to the other, like two cars colliding at an intersection.

The collision produced hundreds of fragments large enough to track from the ground and likely thousands of smaller pieces, each an additional satellite on its own independent orbit, adding to the debris cluttering the space near Earth and further endangering the operational satellites upon which modern society is becoming more and more dependent.

It is not possible to track all the debris now swirling around Earth, and it would be prohibitively expensive to get rid of it. As the amount of debris continues to increase it is conceivable that eventually a growing chain reaction of collisions could so pollute the near-Earth environment with a fog of lethal debris that no satellite will be able to operate.

NATURAL HISTORY

What's wrong with a Sundial?

Nothing. It's your Watch!

by Roy Bishop

If you have ever checked your watch against a good, properly oriented sundial, almost invariably they do not agree. The *What's in the Sky?* article in this newsletter mentions that on June 21 solar

noon in Wolfville occurs at 1:19 p.m., not when your watch indicates 12 noon.

A sundial by its very nature is correct concerning solar noon. It is your watch that is wrong. In early March you shifted your watch ahead by one hour for daylight time. Furthermore, your watch was already 17 minutes too fast because it keeps mean time for 60 degrees west longitude, the reference meridian for Atlantic Daylight Time (ADT). That meridian passes through Sable Island, well east of Wolfville. Wolfville is at west longitude 64.37 degrees. It takes 17 minutes for Earth's rotation to bring the Sun to the same position in Wolfville's sky that it had earlier in the sky over Sable Island.

The origin of the remaining two-minute discrepancy lies in the term "mean time" in the previous paragraph. Mean time runs at a uniform rate throughout the year, whereas for two reasons the westward progress of the Sun across the sky is not uniform. One reason is that Earth's orbital speed around the Sun varies because its orbit is not a circle; it's an ellipse, and Earth moves faster when it is closer to the Sun. The other reason involves the 23-degree tilt of Earth's equator to the plane of its orbit, and that also affects the westward progress of the Sun across the sky. These two factors cause the Sun to be as much as 16 minutes early or 14 minutes late in crossing the noon meridian, compared to if the Sun moved westward at a uniform rate throughout the year. On June 21, the Sun is two minutes late.

In summary, at most localities sundial noon and 12 noon watch time seldom, if ever, coincide. Celestial geometry, orbital dynamics, the definition of standard time zones, and the transition to daylight time all contribute to the difference. In Wolfville, the two noons never coincide, but during the first ten days of November (and after Atlantic Daylight Time reverts to Atlantic Standard Time) solar noon occurs within a minute of 12 noon watch time. The largest discrepancy occurs on the second Sunday in March, when Daylight Time begins. On that day solar noon in Wolfville does not occur until about 1:27 p.m. ADT.



Sundial

Winter 2008/9

by Larry Bogan

This winter (2008/9) was sunnier, drier, slightly colder, and less snowy than the 47-year average. To me, it felt like a long winter and more extreme than that description. A number of factors made this winter seem more severe than it really was.

	Temperature			Precipitation		Bright Sunshine (h)
	Max (°C)	Min (°C)	Mean (°C)	Total* (mm)	Snow only (cm)	
December	4.0	-6.3	-1.1	140	35	79
(47 yr. average)	(1.6)	(-6.2)	(-2.3)	(127)	(56)	(60)
January	-2.6	-15.4	-9.0	78	44	92
(47 yr. average)	(-1.2)	(-9.7)	(-5.4)	(116)	(67)	(76)
February	1.0	-9.2	-4.1	71	49	93
(47 yr. average)	(-0.9)	(-9.8)	(-5.3)	(96)	(57)	(101)
Season	0.8	-10.3	-4.8	289	128	264
(47 yr. average)	(-0.1)	(-8.5)	(-4.3)	(336)	(180)	(237)

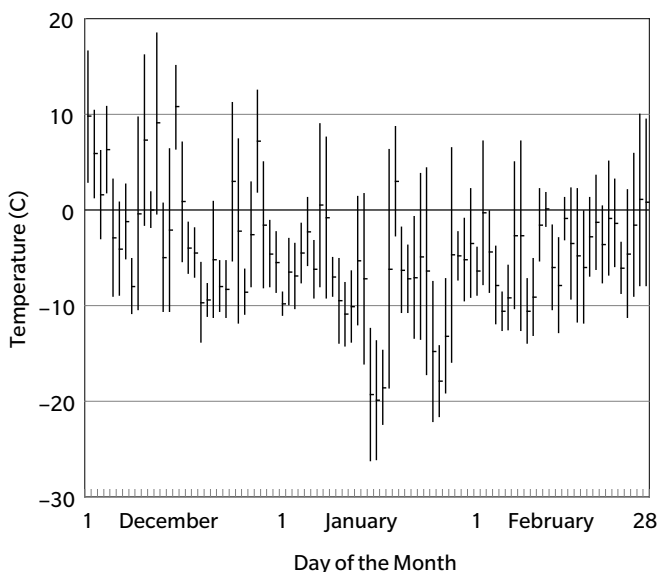
Source: Food & Horticultural Research Centre, Kentville, NS

*Precipitation includes melted snow (1 cm snow equals approximately 1 mm water)

TEMPERATURE

Although the season had nearly average mean temperatures, January was very cold – the mean temperature was an extraordinary 3.6°C below normal. It also had extreme fluctuations in temperature; while the mean maximum temperature was only 1.4°C below average, the

Max, Min, Mean Daily Temperature Dec, Jan, Feb 2008–2009 Kentville, NS



mean minimum was 5.7°C lower. Two extended periods of cold temperatures during the month contributed to these extremes.

This year we had no January thaw. A thaw usually occurs in the middle of the month, but that is just when the coldest weather hit Nova Scotia. For three days, January 15–17, the mean temperature was -18°C or lower. The minimum reached -26°C for two of these evenings at the Kentville Agricultural Centre. At my home in Cambridge I recorded -29°C during that period. Ten days later another slightly less cold air mass crossed over us. This time minimums were -22°C and mean temperatures were -13 to -18°C . Only two separate days in January had mean temperatures above freezing, and then only to 0.5 and 3°C . You can see the fluctuations in temperatures during the season in the temperature chart.

In sort of compensation for January, both December and February were warmer than average by 1.2°C .

PRECIPITATION

We actually only had 71 percent of the usual snowfall for the season and none of the three months exceeded their averages. However, we had snow on the ground for all but 13 days of the season, with an average depth of 26 cm. In February there was as much as 60 cm (2 ft.) of snow on the ground (see the snow depth chart).

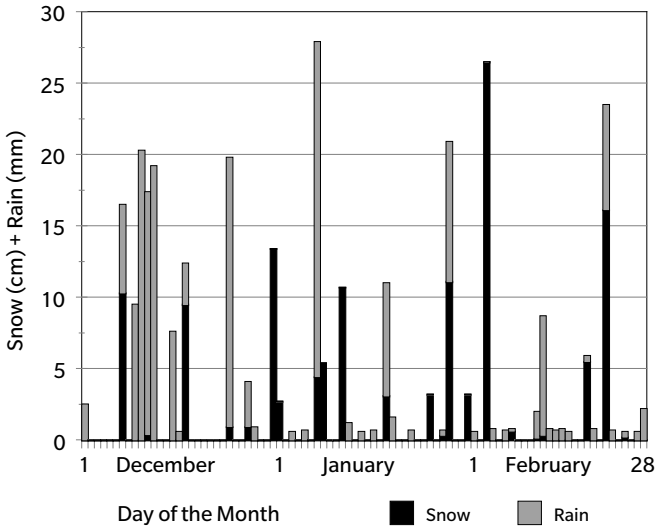
In the table of monthly averages, the precipitation column includes both rain and snow, the latter expressed in millimetres. December had 13 percent more precipitation than average, but January and February got two-thirds and three-quarters of the average, respectively. It was the cold temperatures with no freeze-thaw cycles that allowed the snow to stay and build up on the ground. As you can see from the precipitation chart, lots of days (47 of the 90) had at least some precipitation. Much of this was snow flurries off the Bay of Fundy during the many northwest winds.

All winter we have had cold arctic air masses moving across Canada and crossing the Maritimes. When a mass pushed out into the Atlantic, Nova Scotia got the cold temperatures, but if it moved north, as it often did, the air circulation brought moisture up from the south and we got snow or rain. Depending on the location of the edge of the cold air mass, precipitation was snow when the cold air was over Nova Scotia and rain when the warm southern air pushed in over us.

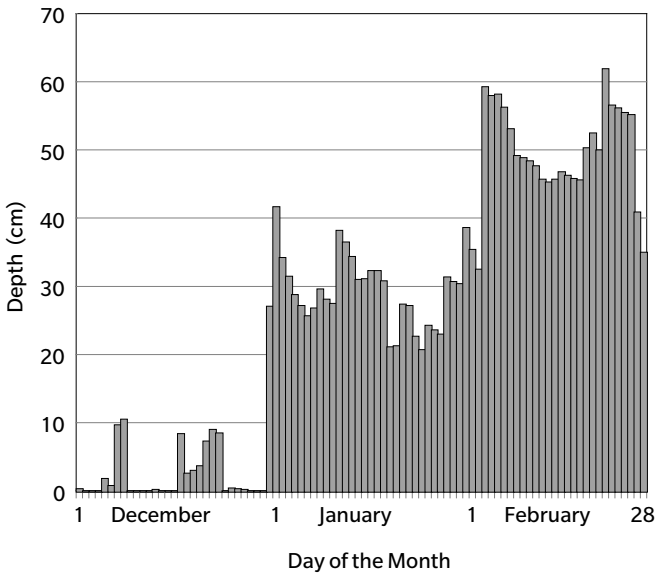
SUNSHINE HOURS

Sunshine can many times compensate for cold weather and cheer us up on a winter day. December and January had above-average bright sunshine, 30 percent and 20 percent more, respectively, but February had 10 percent less. Overall, the season was 11 percent sunnier than average. Meanwhile, the daytime hours are getting longer and we can look forward to warmer and warmer days.

Daily Rain and Snow Fall
Dec, Jan, Feb 2008–2009 Kentville, NS



Depth of Snow on the Ground
Dec, Jan, Feb 2008–2009 Kentville, NS



What's In The Sky?

by Roy Bishop

IT WAS IN THE SKY – DID YOU SEE IT?

The last installment of this column and the February page of the BNS Natural History Calendar describe the February 27 conjunction of Venus and the crescent Moon. The sky was clear that evening, and the two brightest objects in the nighttime heavens were a beautiful sight. I advised observers: “Try photographing the pair in the twilight before the sky becomes dark. A tree or other silhouette in the distant foreground can add a special artistic touch to the scene.” Here is my attempt to take my own advice. Unfortunately the strong wind that evening made the tree branches move, blurring their image.



ROY BISHOP

Winter crescent Moon with Venus, February 27, 2009

THE EQUINOX

Spring sprang at 8:45 a.m. on March 20. At that moment Earth's equatorial plane moved southward past the centre of the Sun. On that day the illuminated hemisphere of Earth extended from the North Pole to the South Pole and the Sun stood above the equator. Consequently, all localities except the poles themselves experienced 12 hours of daylight and 12 hours of night. Because Wolfville, Miami, and Ushuaia had nights of equal duration, March 20 marked the "equinox." For Wolfville and Miami it was the "vernal" equinox, marking the beginning of spring in the Northern Hemisphere. For Ushuaia it was the "autumnal" equinox, marking the beginning of autumn in the Southern Hemisphere.

SATURN, THE SPECTACLE OF SPRING

Earth passed between the Sun and Saturn on March 8, placing Saturn "at opposition," nearest to Earth and well placed in the night-time sky. Conditions for observing Saturn in a telescope will continue to be favourable through April and May as temperatures become warmer, skies become clearer, and Saturn becomes higher in the sky during the evening hours. Saturn's rings are now tilted only four degrees from edge-on, with their south side visible from Earth. Earth passes through Saturn's ring plane on September 4, at which time the rings will be invisible; however, that view will be hidden by the glare of the Sun. Saturn passes behind the Sun only two weeks later. Ring-plane crossings occur only every 15 years: in 1980, 1995, 2009, 2025, 2039, alternating south-to-north (as this year) and north-to-south, in step with Saturn's nearly 30-year orbit around the Sun.

A UFO IN THE DAWN

Venus dominated the western sky as the "evening star" during January, February, and the first half of March. On March 27 Venus lapped Earth once again, passed almost between the Sun and us,

and entered the morning sky. Venus suddenly appears in the pre-dawn sky like this every 1.6 years and invariably generates a spate of UFO reports. For many months there is no bright object hovering in the mystical pink glow of the dawn, and suddenly there it is! For many people it is unidentified (U), seemingly flying (F), a mysterious object (O) indeed – a genuine UFO. Once identified, it is far more interesting: a nearby planet, in size almost a twin of Earth, decorating the dawn as the morning star.

A YOUNG MOON ON APRIL 25

The first visibility of the slender lunar crescent after new Moon has great significance in Muslim countries because each month of their calendar begins with this sighting. Religious events, such as Ramadan, are linked to the Moon in this way, and the crescent Moon is a common symbol in those countries. Among amateur astronomers there is a friendly competition about seeing/photographing the youngest possible Moon. Moons more than 24 hours after New Moon are relatively easy to see; less than 20 hours, very difficult. The record sighting is something like 15 hours, but I do not know if it has been authenticated. Seeing the Moon less than one day old is equivalent to seeing a Le Conte's Sparrow on the Christmas Bird Count!

On the evening of Saturday, April 25 a very thin, 20-hour crescent Moon will be low in the west-northwestern evening twilight, directly above where the Sun has set. The best time to look is about 9 p.m., when the sunset glow will be fading and the Moon is still about three degrees above the horizon. At that time the Moon will be 20h 37m old. It sets at 9:28 p.m. A very low western horizon, clear air, and binoculars are essential to “capture” the Moon less than one day old. The bright, star-like object in the same part of the sky, about 10 degrees to the upper left of the Moon is Mercury.

MOON, PLEIADES, AND MERCURY, APRIL 26

After 9:15 p.m. on April 26, for nearly an hour in the fading evening twilight and low in the west-northwestern sky, will be a pretty sight – the slender, two-day-old crescent Moon beside the famous Pleiades star cluster, while about three degrees directly below shines the elusive planet Mercury. Choose a very low western horizon and use binoculars. Mercury is well placed in that part of the twilight sky during the last half of April. Mercury remains near the Pleiades from April 26 into the first few days of May but dims rapidly and becomes lost in the solar glare by May 10.

SOLSTICE, JUNE 21

Summer arrives officially at 2:47 a.m. this morning. June 21 has the most daylight and the shortest night of any day of 2009, and at solar noon (1:19 p.m. ADT for Wolfville) the Sun is higher in the sky than on any other day of the year. If you are wondering about solar noon occurring at 1:19 p.m., see the article “What’s Wrong with a Sundial?” on page 35 of in this newsletter.

NOVA EAST 2009

The annual star party sponsored by the Halifax Centre of the Royal Astronomical Society of Canada and Wolfville’s Minas Astronomy Group will take place at Smileys Provincial Park near Windsor on the weekend of August 21–23. On Saturday the 22nd NOVA EAST is open to the public to hear talks and view the sky through a variety of telescopes. Everyone is invited, and you do not even have to mark the event on your BNS calendar. NOVA EAST is already inscribed on August 22.



HUGH CHIPMAN

January ice on Lumsden Pond

SOURCES OF LOCAL NATURAL HISTORY

Compiled by the Blomidon Naturalists Society

TOPIC	SOURCE	OFFICE OR HOME TELEPHONE
Amphibians & Reptiles	Sherman Bleakney	H: 542-3604
	Jim Wolford	H: 542-9204
Astronomy	Roy Bishop	H: 542-3992
	Sherman Williams	H: 542-5104
	Larry Bogan	H: 678-0446
Birds – General	Bernard Forsythe	H: 542-2427
	Richard Stern	O: 678-4742 H: 678-1975
	Gordon & Judy Tufts	H: 542-7800
	Jim Wolford	H: 542-9204
	Jean Timpa	H: 542-5678
Butterflies & Moths	Jean Timpa	H: 542-5678
Fish & Wildlife	NS Department of Natural Resources	O: 679-6091
Flora:	Ruth Newell	O: 585-1355 H: 542-2095
Fungi:	Nancy Nickerson	H: 542-9332
Hawks & Owls	Bernard Forsythe	H: 542-2427
Indian Prehistory & Archeology	James Legge	H: 542-3530
Mosses & Ferns	Ruth Newell	O: 585-1355 H: 542-2095
Mammals	Tom Herman	O: 585-1358 H: 678-0383
Rocks & Fossils	Geology Dept., Acadia University	O: 585-2201
Seashore & Marine Life	Sherman Bleakney	H: 542-3604
	Jim Wolford	H: 542-9204
	Michael Brylinsky	O: 585-1509 H: 582-7954

BLOMIDON NATURALISTS SOCIETY

2009 Membership Fees & 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.)

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

Items for Purchase

_____	2009 BNS Calendar	\$15.00	\$ _____
_____	Natural History of Kings County	\$14.00	\$ _____
_____	Nature Walks: Within the View of Blomidon	\$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	\$ _____

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

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Membership fees are due January 1 of the current year. Please send cheques or money orders made out to Blomidon Naturalists Society in payment of membership fees and other purchases to:

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*A Sound Like Water Dripping:
In Search of the Boreal Owl*

BY SOREN BONDRUP-NIELSEN

As a young graduate student in 1974, Soren Bondrup-Nielsen travelled to the logging camps north of Kapuskasing. His search for the elusive Boreal Owl resulted in the first nesting record for the species in Ontario. In recounting this experience, Bondrup-Nielsen's curiosity and passion bring an infectious sense of adventure to his fieldwork, and capture its importance to ornithology and the study of ecology.

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