Blomidon Naturalists Society

Winter 2003 – Volume 30 Number 4

Blomidon Naturalists Society

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

BNS Executive

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

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.go.ednet.ns.ca/~bns/home.htm>

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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 15, 2004

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.

Gifts

As usual there are many thanks to many people both obvious and hidden who make this BNS newsletter possible. You give the most important of gifts – of time, talent, and imagination – to the tedium of labelling, stamping, and stuffing all for free, the true art of the volunteer. Give yourself many hugs, for you deserve more than you ever receive for these good deeds.

Speaking of gifts, during this crazy season can we give Mother Nature a gift, too? She needs all the help she can receive!

Here are some suggestions: gift certificates at your favourite nursery for bushes and trees to be selected and planted in the spring; a small potted fir tree to be planted in the spring, which will grow to remind you for many, many years to come of the Christmas of 2003; bird houses to be put up in the spring; bird feeders to be put up now; supplies for those bird feeders – don't forget the suet and the grit; gift baskets of locally produced fruits, vegetables, maple syrup, honey; subscriptions to nature periodicals for young and old alike; a week at an environmental camp; identification books; whale-watching tickets; a parcel of land to set aside to go wild; donations in the name of the recipient to the Canadian Nature Federation, Nova Scotia Nature Trust, Nature Conservancy, or one of the many other charitable groups trying to restore abused areas and stop loss of habitat for various species; gifts designed especially from recycled materials as a lesson in what can be done; season passes to the National Parks of Canada; good quality weather instruments.

How many other suggestions can you come up with? I want a longer list for next year! Have a merry, but thoughtful, holiday. If we can make our footprint smaller, not larger, this time of year, the world will truly be a blessed place for all.

Jean Timpa, editor

NOTICE

2004 BNS Calendar

Our seventh BNS Calendar (complete with tides, nature notes, astronomical events, historical notes, and photos that would challenge any that the National Geographic prints) "came out" about mid-November to many oohs and aahs.

If you haven't seen this treasure, which like wine just gets better and better each year, you can find it at the following locations: in New Minas at the Camera Corner; in Port Williams at Shur Gain; in Greenwich at Elderkin's, Hennigars, and Noggin's farm markets; in Wolfville at Herbin's Jewellers, EOS Fine Foods, and the Blomidon Inn; in Canning at the Maple Leaf Farm and Building Supplies; and in Hantsport at R&G Family Restaurant. Our thanks to these businesses for their helping hand to our society. And thanks to generous subsidies we are able to keep the price at the usual $12, which is only a loonie a month!

Not only the best bargain in town, the BNS Calendar makes a wonderful holiday gift to those near, dear, and far away, as well as a most delightful hostess gift to all those parties you are anticipating. And to that person on your list who has everything – well, they don't until they have a BNS Calendar! And if you forgot a present or are mailing too late, as I so often do, it might still reach its source by January 1 or shortly thereafter. It has such splendid wearability, and the money gathered from its sales will be carefully portioned out for worthy environmental endeavours. Congratulations to all those who designed this 2004 calendar and thanks to the many others who contributed to its beauty and continued success.

Blomidon Naturalists Society
Fall 2003

Meetings

Unless otherwise noted, all meeting are held on the third Monday of each month at 7:30 p.m. in the Beveridge Arts Centre, Room 244, Acadia University. Meetings will not be held in July and August. The arts centre is across Main Street from the Atlantic Theatre Festival parking lot, just west of downtown Wolfville. Everyone is welcome.

Friday, December 12, 2003 – Sable Island – A Special Meeting. There is concern for the fragile nature of Sable Island's environment and the possible loss of the Sable Island Meteorological Station, which is essential for the long-term protection and conservation of this unique landscape. The Blomidon Naturalists Society has invited Zoe Lucas to meet informally with any interested persons to bring us up to date on the situation on Sable Island. We will meet **in the downstairs lecture room of the K.C. Irving Environmental Science Centre at 7 p.m.** It would be useful to first view the website <www.GreenHorseSociety.com>, which contains a wealth of information about the station (operations, aerology, meteorology, magnetic observatory), the offshore industry, and the biology of the Island.

Monday, December 15, 2003 – Geology of the Sea Floor, with Cliff Stanley of the Department of Geology at Acadia University.

Monday, January 19, 2004 – Annual "Show and Tell" Night. 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. Note: This meeting begins at 7:30 p.m. **in rooms 308 and 325 in Patterson Hall** (biology building below the Irving Centre), University Avenue, Wolfville.

Monday, February 16, 2004 – Exploring the Sounds Around Us. Dennis Jones will present several examples of recent acoustics studies carried out in Nova Scotia on natural phenomena. From the howling winds

of Hurricane Juan to the wing beats of the mosquito, from the aesthetically pleasing songs of birds to the mysterious calls of whales lies a hidden science, should one be inclined to uncover and understand it. Using video clips, sound bites, and colourful images, this presentation will introduce you to the subtleties of some of the aural surroundings in which we live.

Monday, March 15, 2004 – Solar Storms and Aurora Borealis, with Svetlana Barkanova of the Acadia Physics Department. Earth's magnetosphere is strongly affected by the level of explosive and unpredictable solar activity. Not only does the magnetosphere shield us from the harmful high-energy solar radiation by trapping it in the Van Allen belts but it also provides a spectacular light show called the aurora borealis, or northern lights. This colourful display results when atmospheric molecules, excited on collision with the charged particles, fall back to their ground states, and emit visible light.

Monday, April 19, 2004 – The Value of National Parks, with Peter Hope, recently retired chief park interpreter from Kejimkujik National Park. National Parks are more than just nice places to camp. The natural resources they protect and the research that is carried out permit us to understand, and enjoy unique places and special species. In getting to know our parks better, we have made many interesting discoveries.

Field Trips

Unless otherwise indicated, all field trips begin at the Robie Tufts Nature Centre (RTNC) on Wolfville's Front Street (look for the weird chimney in the NS Liquor Commission parking lot). Additional field trips may be announced at BNS meetings.

Saturday, December 20, 2003 – Wolfville Christmas Bird Count. Call compiler Ian Paterson (902 582-1273) if you would like a designated area or would like to be assigned with another group. Everyone is welcome to participate. Count tally and chowder supper after dusk at the biology building (Room 408, Patterson Hall, below the Irving Centre).

Saturday and Sunday, January 24 and 25, 2004 – 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, call Richard Hennigar (902 582-3044).

Saturday and Sunday, January 31 and February 1, 2004 – Eagle Watch Weekend II. A repeat at the Sheffield Mills Community Hall and area.

Sunday, February 29, 2004 – Biology Museum Tour. Curator Fred Scott (902 585-1720) will give us a tour of the Wildlife Museum on the top floor of Patterson Hall on University Avenue in Wolfville. You will see displays of mounted birds and preserved specimens, learn the importance of natural history museum collections to taxonomic and evolutionary research, and hear such things as a recording of a silver-haired bat feeding. Since space is limited in the museum we are asking interested people to sign up for the tour. The first 20 will be signed up for Sunday morning from 10 to 12 a.m. If there is more interest Fred will do a second tour in the afternoon from 1 to 3 p.m. To sign up, e-mail <simon.forsyth@ns.sympatico.ca>, phone 902 542-5983, or register at one of the regular BNS meetings prior to the tour. We will meet at the museum.

Sunday, March 7, 2004 – Winter Sea Birds along the Port George/ Margaretsville/Fundy Shore, with Jim Wolford (902 542-9204). We will be looking for Harlequin and Long tailed Ducks, scoters, mergansers, loons, grebes, Purple Sandpipers, etc. Meet at the RTNC at 9 a.m. or the Port George picnic park at 10 a.m.

Sunday, March 14, 2004 – Pond Life Through a Microscope. Eric Alcorn, Todd Smith, and Helene d'Entremont of the Acadia Biology Department are going to lead an indoor field trip to observe the fascinating and incredible diversity of living organisms in a drop of pond water. Microscopes and overhead projector will be set up in a lab in the biology building, Patterson Hall, University Avenue, Wolfville from 1 to 3 p.m. Meet at the biology building.

Friday, March 26, 2004 – Five-Planet Lineup. The five naked-eye planets and the Moon will be strung across the evening sky during the first few days of spring. Roy Bishop (902 542-3992) and/or Sherman Williams (902 542-5104) will be on hand at the old parking lot in Grand Pre Park to point out the planets and other celestial objectsMeet at the RTNC at 7 p.m. or at the Grand Pre site at 7:15 p.m. Rain date will be Saturday, March 27.

Sunday, April 25, 2004 – Early Spring Birds of Kings County, with the Nova Scotia Bird Society and BNS. Leader: Jim Wolford (902 542-9204). Meet at 10 a.m. at the RTNC. Bring lunch, warm clothes and dispositions, binoculars, scopes, field guides, and field footwear.

Ghost Butterflies of Fall

by John Belbin

The early fall, and the trees are just beginning to show some colour – most are still green. It is early morning after one of the very first hard frosts – the air is totally still and a low fog covers, wets, and hides everything. The greasy looking sun is very low and indistinct, most trees are in silhouette, and the sun is not yet strong enough to throw shadows. I walk down the trail next to the golf course where the vegetation on the sandy soil is very low, mostly rough grasses mixed with low blackberry, blueberry, and other scrub-like thin vegetation. It is unusually quiet; even the most rabid golf fanatics have yet to appear – the visibility is too poor and there is still a wet frost on the greens. I suddenly notice some small white wings beating on a grass stalk as if they are trying to dry themselves in the feeble sun. It is a tiny white butterfly-shaped insect, only one-quarter the size of the familiar Cabbage White. It is almost devoid of markings; even the body is a pale colour. The small insect is slowly crawling up the grass toward the sun, beating its wings steadily as it goes.

Looking up I see another a metre away, and then another a little further on. Some white blobs on other blades of grass mark where others have yet to open their wings. More and more emerge until when I crest a rise a few minutes later a strip of brush looks as if it is alive and trembling, so many small wings are beating steadily in unison. Hundreds of these insects are drying themselves by beating at a constant rate.

Within minutes the first brave explorer beats heavily into the still air and rises to the magnificent height of one metre and then, still flapping steadily, slowly drops onto the sandy trail. Others try, none of them looking as if they can do more than take off by a supreme effort; perhaps their wings and bodies are still wet and heavy, perhaps the cool air is still slowing their capabilities. Slowly, more take to the air; they flap heavily and continuously, rise just above the ground, and are subject to every whim of the almost still air. They seem to drift helplessly, blundering into whatever happens to be in their way, including me.

Thirty minutes later the sun has arrived as a real shape. There are black shadows and real colours and a blue sky, and the fog has vanished. The hundreds of ghost-like butterflies have almost vanished as well, only the odd one still beating furiously on a stalk like some late riser that has seen all its friends leave for work and is madly tying to catch up. One or two are still drifting aimlessly on the feeble air currents. Looking closer in the better light, I see that they are not white at all, but a pale beige that could not be seen in the fog. Belatedly, I realize that they are probably not a butterfly but some kind of moth. Butterflies would not be out in such poor conditions.

Where did they all go? What was this mass effort all about? What are they and why do they perform this ritual so late in the year? My butterfly handbook doesn't even list such a species, and I have no moth reference besides the Internet or the local library. What was I watching? They have perfect butterfly-shaped wings and only the merest trace of any markings. They appeared and vanished so quickly that there is a total mystery about these minuscule explorers, and for a while I remember them with pleasure.

Much later I find a report on the Winter Moth and it seems to fit. I learn that my attractive ghost butterflies may actually be a pest, one that many people once spent large efforts to eradicate.

If that is true, I was actually watching a European insect that feeds on several species of deciduous trees. Apple and oak are the preferred host trees; we have lots of both. That insect was apparently introduced into Nova Scotia years ago. For several years, it was necessary to spray shade trees to prevent them from being seriously defoliated. Only the male can fly. The female must crawl up the trunk of a tree to lay her eggs. That is the reason for landowners using Tree Tanglefoot to stop her progress. Natural Resources Canada says "The successful establishment in the Maritimes of introduced parasites and diseases have reduced winter moth numbers to a level where spraying in many areas is neither desirable nor necessary." Maybe I am not right after all, but what else could it be?

Whatever they may be, it illustrates something we constantly face in the natural world: it's all in how you look at it. Even pests can be attractive, and you can gain pleasure from watching almost anything.

Woodville Trails Walk – October 19, 2003

by Larry Bogan

The Walk

It had rained in the morning and the previous day. The weather prediction was "cloudy with sunny periods," and just before we met the sun broke through and promised what was predicted. So the seven of us at the United Church parking lot in Woodville decided to walk the trails; obviously the rain of the morning was at an end.

We parked at the Burgess Mountain Road trail entrance and walked to the lookoff. Along the way we were passed by a young family as we paused to look at large flock of juncos with a few Yellow-rumped Warblers. The path entered an overgrown Christmas-tree plantation, then went into the predominantly beech-maple hardwoods at the brow of the mountain.

Just off the trail is a small clearing with a picnic table for relaxing while taking in the view of the valley below. At the time there were rainsqualls over the southern uplands, but we were dry. The area around Woodville was a beautiful patchwork quilt of green fields and red and gold woodlands.

From here we proceeded to the west end of the trail system to visit a small waterfall dropping over the south side of the mountain. The rain of the previous day and evening made for a pleasant cascade into the small hardwood-filled gorge below. Extensive growth of Canada Yew covered the forest floor on the west banks. At this farthest point from the cars, the sporadic showers we had experienced so far turned into more steady rain. However, we arrived back at the cars only a little wet and still game to visit the pond at the north end of the trail system, but by car. The pond is only ten metres from the road but hidden by trees. It is surrounded by cattails and brush, while being clear of the growth so common in the Valley, where agricultural runoff causes algae blooms. After enjoying the brief solitude around the pond, we departed in our own directions to dry out at home.

Birds Observed
In addition to the juncos and Yellow-rumped Warblers, we encountered a raven, Blue Jays, chickadees, a Hairy Woodpecker, and a Ruffed Grouse. The raven did a nice roll in flight as it flew by. Not many active birds on a rainy day.

Plants Observed
Bernie Forsythe provided most of the plant identification. Some of the flowering plants were Large-leafed Aster, White Wood Aster, Zigzag Goldenrod, eyebright, Fall Dandelion, and Black Knapweed. Others plants that we took time to identify and discuss were Indian Cucumber-root, Helleborine, Gold-thread, several club-mosses, Witch's Butter (fungus), and Christmas Fern. There were some nice large maples and beech in the woods near the south rim of the mountain. The woods north of the rim were more red spruce, pine, and fir, but in good shape where they had not been cut.

Eagle versus Cormorant
by Peter Hope, South Brookfield

In early October I was talking with Larry Smith of North Brookfield. He has a cabin on Little Tupper Lake in the northern part of Queens County. He often sees a cormorant (it would be Double-crested) fishing near the cabin.

One day in the middle of this past summer he looked out and saw the cormorant on the water with an eel it had caught. Next he observed an eagle come down and pick up cormorant, eel and all. The eagle carried the cormorant two to three metres into the air, and it appeared the eagle had one foot holding the cormorant. Suddenly the cormorant fell to the water, the eagle had the eel and flew off. The cormorant squawked and beat a hasty retreat.

Our Sun: Ten Days for the History Books

by Roy Bishop

During the autumn of 2003 our star has been remarkably active. Like a good bonfire it gives off a steady flow of heat and light, making life on Earth possible. But like a bonfire it occasionally throws out jets of flame and sparks.

Our Sun is hot, so hot that its matter cannot be in solid, liquid, or ordinary gaseous form. It is in the form of "plasma," a completely ionized gas composed of positively charged atoms (ions) and freely moving, negatively charged electrons. This immense ball of electrically conducting matter rotates about once a month. Moreover, the matter near its equator completes each rotation in less time than does the matter nearer its poles, so that the entire incandescent ionized globe is shearing internally as it rotates.

Magnetic fields are produced by moving, electrically charged matter, and in the case of our Sun the rotational shearing periodically twists the magnetic field lines into tight energetic loops. Where these loops protrude through the solar surface, the strong magnetic field slows the churning motion in this region and, as a consequence, less heat is brought up from the solar interior. Thus these regions of the surface cool off, resulting in the dark blotches called sunspots.

The immense energy stored in the magnetic loop associated with a large sunspot is occasionally released as a solar flare, an extremely hot burst of matter and radiation that throws vast quantities of protons and electrons at high speed outward through the solar system. When such a burst strikes Earth's atmosphere it produces aurora borealis and aurora australis (northern and southern lights).

On October 18 an immense sunspot (numbered by astronomers 484) rolled into view on the east limb of the Sun. A few days later it was joined by two more large sunspots, 486 and 488. All three "spots" were truly large, each about ten times the diameter of Earth, and were among the largest

sunspots seen in many years. The spots were easily visible to the unaided eye, provided a solar filter was used to dim the blinding glare of the Sun. These large sunspots were a surprise because the 11-year cycle of solar activity peaked in 2000 and has been declining toward its next minimum.

On October 26 spots 484 and 486 produced X-class solar flares, the most powerful kind. Two days later the third most powerful flare observed in the past 25 years erupted from 486. Major solar flares are subdivided as X-1 to X-10, depending upon their energy, but the October 28 flare was off-scale at X-17! When it impacted Earth on October 29 it produced spectacular aurora and affected communications satellites. Unfortunately there was rain that evening in Nova Scotia so we did not see the auroral display.

Sunspot 486 produced two more extremely energetic flares before it rolled around onto the backside of the Sun. The first was an X-10 flare on October 29, when 486 was still facing Earth. This resulted in an aurora over Nova Scotia in the early evening hours of October 30. The second was an unprecedented flare (estimated to have been X-28) just as sunspot 486 was disappearing around the west limb of the Sun on November 4.

The aurora display over Nova Scotia on October 30 was the best in many years. There was noticeable activity as twilight was fading that evening, and the main performance began about 7:15 p.m. From then until about 7:45 p.m. the sky was ablaze with moving red and green sheets and rays, so bright that they were obvious even from within the light pollution of towns and cities. I spent the time gawking, taking photos, and telephoning people to GET OUT AND LOOK! During the next half hour the activity subsided, but then picked up again around 8:30 p.m. However, the best display had been the earlier one. By 10 p.m. all that was left was a broad, dim, white band low in the north.

When sunspots 486 and 488 rolled into view again at the east limb of the Sun on November 18, they were shrinking in size. During the latter part of November, 486 did not repeat its dramatic performance of a month earlier. The ten-day period October 26 to November 4, 2003, is expected to go into the history books as one of the most dramatic periods of solar activity ever recorded.

BNS Field Trip Report

Hennigar Nature Trail

by George Forsyth

We had a wonderful walk along the nature trail constructed by Doug Hennigar and open to the public in the Tannery Hollow in Greenwich, Kings County, Nova Scotia. There were 20 participants; two were young boys attempting to complete a tree identification badge for Boy Scouts. The weather was beautiful, sunny, about six degrees with only slight winds.

We began with an introduction to the cultural history of the area: the Acadian settlement in the 1680s, the arrival of the Planters in 1760, the construction of the railway in 1869. And then we learned of some of the industrial endeavours of Willow Hollow/Tannery Hollow. The Johnson family operated a leather tannery beside the pond in the 1880s. They also cut and stored ice from the pond for Wolfville residents to keep their iceboxes cool. The Stirling family operated Willow Hollow Dairy in the 1920s and have continued to manage a large fruit farm. Finally, the Hennigars have operated their farm and market for more than 50 years.

At the roadside pond we were able to study a flock of ducks at very close range. The difference between domestic Mallard ducks, after selective breeding over many years, and their wild kin was very obvious. In the flock we identified four drakes of the wild hybrid, Mallard X Black (*Anas platyrhynchos* X *Anas rubripes*). There are those who believe the Black Duck and Mallard to be of the same species, and that genetically pure Black Ducks are disappearing in Nova Scotia. The hybrids we studied had traits of both parents but not in the same proportions. The domestic Mallards showed the fullest range of colour: tufted white, the typical, a black Mallard with white patches, and a beautiful black with metallic purple and green sheen throughout its plumage.

The intent of the walk was to share with the participants an area I have enjoyed exploring for 30 years, and to practise observing the beauty and details of the deciduous shrubs and trees of Tannery Hollow. At this time of year many of us fail to notice the subtleties of the woody plants; we

overlook the textures and markings that can reveal the identity of the plant. We have been spoiled by summer's leaves, blossoms, and fruit. Apply little detective work, and most can be identified.

Most deciduous trees had lost their leaves, though as expected there were leaves on beech, Red Oak, English Oak, and Swamp White Oak. This trail is one of a very few places in Nova Scotia where three oak species can be seen together. The English (*Quercus robur*) and the Swamp White (*Q. bicolor*) are two naturalized species that grow in Greenwich along with the common native Red Oak (*Q. rubra/borealis*). We saw all three from one vantage point, all within one hundred feet of each other. The oaks were identified by the residual leaves as well as by the trees' silhouettes.

The trees that have lost their leaves for the season can be a puzzle, but many clues to their identity remain, even when barren of leaves. The first tree species we identified along the pond margin were the many white ash (*Fraxinus americana*), their trunks showing the typical even furrows of the bark as it splits to allow successive annual growth rings below it. White Ash twigs are blunt and robust, with the branches showing the opposing twig structure that is evident in its leaves of summer. Growing with the ash are some White Birch (*Betula papyrifera*) as large as I have seen. The birch is the easiest tree to identify, with its glistening white bark and black branches.

At this point I challenged the group to identify a small tree about five inches in diameter at the butt. The bark a smooth grey with distinctive white lichen patches growing closely on the bark. Looking up, we noted that the buds were not as sharply pointed as an American Beech (*Fagus grandifolia*), and the twig pattern was more graceful than the nearby Red Oak. The tree was identified as Amelanchier (*A. arborea* or *A. laevis*). Within the group, as was expected, a number of common names were offered. This harbinger of spring is very noticeable when it is in bloom and then seems to disappear into the shadows of our woodland margins. Many will recognize Serviceberry, Bilberry, Shadbush, Indian Pear, Saskatoon, or Juneberry when it is in bloom, but as a trunk in the path of observant naturalists it posed a puzzle.

Following the path as it meanders along the brook south toward The Ridge it was easy to see why I have enjoyed this area for so many years.

It is close to civilization, yet in the ravine you see nothing of the creature comforts of our modern age. I fondly remember playing hockey on three ponds in this hollow; without referees and spectators we were any hockey star we wanted to be, playing in every Stanley Cup that was ever played, scoring the winning goal between frozen boots, with distant calls for supper as the only spoiler to the greatest game we ever played.

The pond where I shot my greatest slapshot, where the puck probably still lies lost at the base of a maple tree is now an example of succession. It filled with silt from the construction of Highway 101, its water long since flowed to other areas of the hollow, and now it hosts a healthy stand of young Sugar Maples (*Acer saccharum*). These are seedlings from the trees planted by one of the Johnsons in the 1800s, not knowing I would play hockey in his ravine, or that the offspring of his trees would conceal the greatest shot of all time!

Along the brook-side walk we identified many shrubs that have escaped from our gardens: Barberry (*Berberis thunbergii*), Multiflora Rose (*Rosa multiflora*), European Alder Buckthorn (*Rhamnus frangula*), and Snowberry (*Symphoricarpos albus*). We also were able to study the various cherries that grow in this area. The Choke Cherry (*Prunus virginiana*) can be identified by the horizontal glands and pores on the smooth, dark-coloured bark as a cherry and by breaking a twig and smelling the odour of the plant. The domestic cherry (*Prunus avium*) was true to its Latin name; the birds have spread this tree into the hollow from the neighbouring orchards. Its twigs are much more robust than the other cherries. The native Black Cherry (*Prunus serotina*) was found growing in a number of places in the ravine, and its mature bark showed the typical pattern of scales, rather than fissures, that looks more like the bark of a spruce.

Climbing to the highest point of the walk at the top of Hennigar's field allows one a beautiful view of "home." In the distance, Blomidon commands attention as it stands sentinel in the full sun of late autumn, the basin at half tide and Five Islands a distant point not in our vision but knowingly there. Two ravens, celebrating their freedom from domestic service, reeled and dipped and soared and enjoyed the view as much as we did.

Henpecked
by John Belbin

This piece was first published to NatureNS October 8, 2003.

Is it my imagination or have we had a huge drop in both the numbers and variety of birds around? If you ignore the screaming Blue Jays, crows, and starlings there is almost nothing anywhere in the last few days. I get more chickadees at my feeders (a handful) than I see on a 90-minute stroll through the woods. There hasn't been a goldfinch in about ten days, and there is very little else apart from a few sparrows. This seems quite different from the same time last year. If it weren't for our mini-explosion of Pileated Woodpeckers, there would be nothing of interest whenever I go out in the area. I see at least one of those virtually every time I leave the house lately.

This morning I decided to walk round Stronach Park in Kingston, which is again a pleasant thing to do now that the bugs have gone. I heard banging on a tree so loud I thought someone was using an axe. A female Pileated Woodpecker was working on a dead pine tree. She was so engrossed that I was able to walk right up underneath her. She was literally tearing one branch apart. After a few minutes a male joined her and gradually worked his way closer and closer. Apparently, whatever she was after was a choice lunch, and she was in no mood to share. The male received a swift and hard peck in the rear end which caused a great deal of yelping and flapping before he moved off to a safer half metre or so and found his own patch.

The amount of debris those two created was amazing; it just rained down, almost like a chain saw was being used. I began to think that I should have brought my old hard hat. One piece of bark was about a metre long. I watched for about 15 minutes and the female just kept on working on the same spot. The male moved about and tried a dozen different locations but was clearly not having much luck. When I left they were both still happily hammering away at the same branch.

BNS Field Trip Report

Intertidal Life, Kingsport - October, 2003

by Jim Wolford

Sherman Bleakney led about 20 people armed with flashlights on this BNS field trip to the intertidal rocks, tide pools, and mud flats at Kingsport. It was quite windy, which was a bit of a problem because of the stirred-up tidal pools, but otherwise the weather was fairly mild.

Perigee (shortest distance between the Moon and Earth for the month) was on the day of the trip, the New Moon just the day before. When they coincide the result is big tides – high highs and low lows. This "zero low" tide was quite unusual, one of the lowest of the year; hence the choice for the day and time for this experience (an earlier daytime trip coincided with the arrival of Hurricane Juan and was cancelled).

Looking for things on the tide flats is difficult at night without lanterns and floodlights. It's also easy to get disoriented out there in the dark, but we did find lots of interesting flora and fauna. Here are the highlights:

• At the top of the beach we found shells of slipper limpets, or slipper-shells (*Crepidula fornicata*). In the lower intertidal zone we found oodles of living juveniles on shells and rocks, and one "sexy stack" of adults under a rock.

• Early in the trip in very shallow sand we found some tubes of mud shrimp (*Corophium*), but we didn't see any living ones.

• The plant-like skeletons of the bryozoan *Flustra* were occasional, and Sherman found one living colony in the lowest intertidal zone. He passed it around so that we could experience its natural citronella-like odour.

• Lots of blue mussels were in area of sandstone outcrops. We noted the tough byssus threads with which they attach to rocks or each other.

• Hanging under a large sandstone outcrop were lots of hydrozoans or hydroids (*Obelia,* more recently called *Laomedea*), also named Zigzag Wine-glass Hydroid in Merritt Gibson's *Seashores of the Maritimes*

(Nimbus). Sherman pointed out that these tiny plant-like animals in colonies are armed with stinging cells and prey upon tiny swimming creatures in the water. We also saw thousands of other kinds of hydroids all over the lower intertidal flats.

• There were lots of living large moon shell which prey on various kinds of clams. Th shell of one recently killed individual was broken as if something had taken bites out of it.

• On rocks Sherman found a scaleworm (a segmented worm covered with flat scales) and a bunch of sea slugs (snails without shells). Both are predators, but this kind o sea slug specializes in barnacles, which are extremely abundant but very small here.

• We saw very few worms, but Sherman pointed out to us the abundant masses of crunchy sandy tubes of tiny *Sabellaria* polychaetes (marine segmented worms).

• We saw sulphur (or bread-crumb?) sponges on rocks and a red sponge on both rocks and shells.

• We also saw another predator of barnacles and blue mussels: the dog whelk, or dogwinkle, whose shell comes in several colours and textures.

• In tide pools we found lots of New England basket shells (snails), hermit crabs, and young sand shrimps.

• We saw oodles of empty razor clam shells and burrow entrances. After digging up a small clam, we were able to watch it burrow.

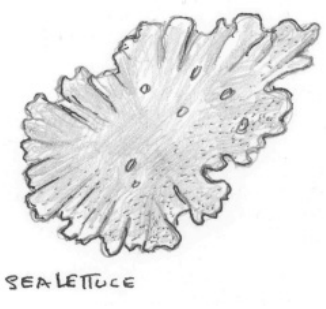
• Covering the lowest intertidal flats were shells of various dead clams: razor clams, quahogs, surf or bar clams, etc. Undoubtedly many were killed by moon shells (one large bevelled hole was seen) and other predators. We saw several living quahogs and surf clams. Other clam shells included false angel-wing, pandora, and soft-shelled clam.

• Rock crabs were common, and we found one carapace of a lady crab.

• Seaweeds included rockweed (*Fucus*), Sea Lettuce (*Ulva*), Laver or nori (*Porphyra*), Irish Moss (*Chondrus*), and "Mermaid's Hair" (*Desmarestia*).

• Fish observed included good numbers of stranded sculpins (many of which we moved into shallow water), a small translucent silversides (a very common schooling fish), and a small hake of some kind.

On our way back to the wharf, a sandy area showed lots of serpentine tracks of what I call sand sowbugs, isopod crustaceans that are relatives of sowbugs or wood lice on land. Earlier we found a different kind of isopod under a low-intertidal rock.



Juan Rearranges Fundy Mud

by Sherman Bleakney

Sherman Bleakney, leader of the October 26 intertidal field trip, responded to Jim following his report on the trip. Sherman had taken home an unknown clam for identification – and it had a story to tell.

In all my years of exploring the sublittoral tidal fringe at Kingsport during extreme low tidal phases, I had never seen anything resembling the night of October 26, 2003. I have seen that zone altered by storms but still recognizable, but on the 26th it was totally transformed.

Obviously Hurricane Juan was involved, but until I identified that "distorted" live clam that I brought home, I had not realized the devastation that even the fringes of a hurricane can wreak upon the ocean floor. We all saw pictures of high-tide destruction on Nova Scotia's Atlantic shore, but few people are aware that high tide at Halifax is low tide time in the Minas Basin, just when Juan struck. However, on September 28 the low water level in the Basin would have been about two feet higher than on our October 26 field trip, which was the lowest tide of 2003. So, we were walking about on the floor of the sea in an area that had not been exposed to air since October 7, 2002.

The mystery clam pulled all the obvious clues together, and by my interpretation, that low-tide habitat was not just moved about, as storms often do, but was actually moved away – gone!

Consider the clues we observed. We were not walking on soft silts, tubeworm ridges, and pools, or on ripple sand. It was as firm as a paved parking lot. Jim's spade dug into hardpan clay. Most revealing were the many live clams of many species, and the moon snails, all exposed on that surface. They should have been deep in their burrows, and they have had a month to do so – a difficult thing to accomplish when there is nothing soft in which to burrow!

Many thick-shelled clams seemed to have survived, but that carpet of broken razor clam shells is not unexpected considering the thinness of their valves. Over the past month, while this zone has been submerged, the scavengers have feasted and the epibionts have colonized all those new firm surfaces of shell. That moon snail with one side sheared off probably resulted from a storm wave smashing it against the sharp edge of one of those basalt blocks that are scattered about. (This is not a zone where gulls can drop shells; nor would a tooth bite or crunching jaws produce this type of damage on a hard round shell.)

Even the basalt and other rocks were essentially stripped of their usual sponges, bryozoans, and hydroids. What stunted samples we did see may simply represent colony regrowth over the past month.

As a measure of Juan's fury at Kingsport, the mystery clam reveals all. It is Conrad's Thracia (*Thracia conradi,* 1838 – now there is an easy one to remember), one of the rarest of clams. In all of North America, there are but two species on the west coast, one other in the Carolinas, and this one, which is known only from subtidal sites from the Gulf of St. Lawrence to Cape Cod. According to Abbott, 1974, its preferred habitat begins about 15 to 90 feet below the level of low tide, where it lives in deep burrows in sand or mud, lying on one side and not moving about, but in contact with the surface via a tremendously long siphon. (Abbott cites scuba diver Martin L. Thomas as an authority on this species [*The Nautilus,* 1967, vol. 80, p. 84]. Martin did his research on Prince Edward Island, but more recently was living in Port Williams.)

The shell of this species, because it is relatively fragile, rarely washes ashore intact, and even in the process of dredge sampling it is usually crushed and thereby overlooked, hence its rarity. In the late 1970s, Gary Gratto found them on the Scots Bay sand flats at extreme low tide by following down the siphon burrows for nearly a foot. Martin Thomas used scuba and a venturi siphon to vacuum his way down to their habitat level.

Thus, the discovery of this live little white bivalve, stranded on a firm sea floor for the past month, is circumstantial evidence of a storm that was capable of stripping away the soft sea floor far beyond the normal extreme low-tide zone.

The fun and thrill of field trips, be it birds, butterflies, or bivalves, is that you never really know what will come to hand. This shell is possibly the first record for the Minas Basin.

Seals of Fundy

by John Belbin

From John's logs posted to NatureNS . . .

October 31 – I headed over to Port George and Cottage Cove, where I knew it would be low tide. There were no less than 37 seals lounging about on the reef, by far the most I've ever seen there. A few noses kept popping up in the bay, so there were obviously others about.

There was a huge variation in sizes, shapes, and coloration, and after some study of the various profiles I decided that I was looking at 22 Grey Seals and 15 Harbour Seals. There were three all-black individuals and one almost pure white. All the others were various shades of grey, some with spots and many without. Comparing the head shapes is not nearly as easy as the guide books would have you believe. It was a very noisy group, with a great deal of growling and grumbling. They must have excellent eyesight: I would get a grumbling response every time I turned my scope on them.

November 12 – This afternoon I paid a short visit to the Cottage Cove park area, on the Bay of Fundy. It was high tide and still pretty windy and cool, but the low sun illuminated some things well.

It appears that the Red-throated Loons are still moving through on their journey south for the winter. The Grey Seals seemed to be enjoying the waves; at times they looked like miniature Loch Ness monsters. The snorting noises made them sound like one as well.

November 14 – Stormy it was – grey, cold and blustery – the kind of day that makes your car bounce up and down even when it's parked. The reef at Cottage Cove was a dramatic sight with heavy surf pounding right over it – no sunbathing seals today. Despite that, there were 12–15 Grey Seals very close to shore.

I saw first one Northern Gannet and then another; they were widely dispersed and obviously fishing. After a few minutes I had seen five of

them. With the stiff winds their aerobatics are even more impressive than normal. They were having a good fishing experience.

The heavy winds obviously affect the birds in different ways. I saw a Red-breasted Merganser trying to fly low against the wind. Its whole body was stretched out and straining and it looked as if it was barely moving. When they fly downwind they go by like bullets and you have almost no chance to identify them. I saw a good number of brownish duck-like objects going by like missiles, but I can't seem to find that category in Sibley or anywhere else.

A flock of a dozen Snow Buntings flew through the park while I sat in my car, the first I've seen this year. They had great timing given the flying snow.

November 17 – This was a great day to get out to the coast after all the miserable rain and wind of the past week or so. There was an amazing variety of birds about; maybe you just can't see them normally.

The seals seem to have multiplied recently also, with double the number I am used to seeing. This seems mostly due to an invasion of Harbour Seals. I saw 34 seals on the reef, of which only six or so were Grey Seals. The Harbours are very skittish, and as soon as I got out of my car they all plopped into the water. The Greys just gave me that "What, you again?" look and carried on sunbathing. As soon as I got too cold and hid in the car again the Harbours all climbed back onto the reef.

November 26 – The whole feel of the place has changed from only ten days ago. The seals are much fewer and they are all highly nervous. There is no way they are going to haul out while anyone is nearby, even if you stay in your vehicle. It's no wonder: a resident of a community just along the coast told me this week that the fishermen are shooting them when they get near the fish weir. The birds also seemed to be disturbed and nervous.

I was only able to see about ten seals, but that is a very rough guess as it is hard to count noses emerging from choppy waves, when that is all that you see and they keep moving about. I would estimate eight Harbours and two Greys.

A Field Trip for Lunatics

by Roy Bishop

Total Eclipse of the Moon – November 8, 2003

On average, one night in three is clear in Nova Scotia. Because the first two of the last three total lunar eclipses visible from our province had been clouded out, I told people that it would be clear for the third eclipse, due on November 8 this past autumn. On Harold Forsyth's suggestion, I scheduled an eclipse-viewing field trip for the Blomidon Naturalists Society at Grand Pre National Historic Site.

The sky was clear that evening (as I had said if would be!), but it was below freezing with a strong northwest wind. That afternoon I checked out the viewing site and found an area on the east side of the park's old administration building that was remarkably well-sheltered from the wind. The building broke the main blast of the wind and the extensive hedge surrounding the building seemed to dissipate any remaining eddies.

In addition to BNS, two other groups were invited to the field trip: Minas Astronomy Group and an Acadia University Continuing Education astronomy class led by Sherman Williams. Sherman, Larry Bogan, Karen Smith and I each brought a telescope to facilitate viewing the eclipse.

Some blowing clouds obscured a few minutes of the initial partial phases and a couple of minutes of the 24-minute-long total phase, but most of the time the Moon was in a transparent sky. The most striking views were of the beginning and ending of totality (near 9:00 and 9:30 p.m.), as viewed through the telescopes. The views were much like the photograph on the October page of the BNS 2004 calendar, although a photograph cannot match the aesthetic impact of a direct view of the eclipsed Moon through a telescope.

Unfortunately, the cold wind discouraged many people from joining our group that evening. I am reminded of a picture I saw once. It showed four people standing in the rain. Three of them were holding umbrellas over their heads; they were dry but looked rather unhappy. The fourth person did not have an umbrella, and was looking up a rainbow.

Eastern Annapolis Valley Weather
Fall 2003
by Larry Bogan, Cambridge Station, NS

Sunny, dry, and warm: those are the words I have for the autumn of 2003. Of course there is more to our weather than that.

	Mean temperature (deg.C)	Rainfall (mm)	Bright sunshine (h)
September	16.6	93	228
(42 yr. average)	(14.6)	(175)	(190)
(5 yr. average)	(16.2)	(132)	(197)
October	9.9	115	161
(42 yr. average)	(9.1)	(106)	(140)
(5 yr. average)	(8.9)	(146)	(164)
November	4.8	63	88
(42 yr. average)	(3.9)	(118)	(81)
(5 yr. average)	(4.1)	(114)	(70)
Season	10.4	271	477
(42 yr. average)	(9.2)	(399)	(411)
(5 yr. average)	(9.7)	(392)	(431)

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

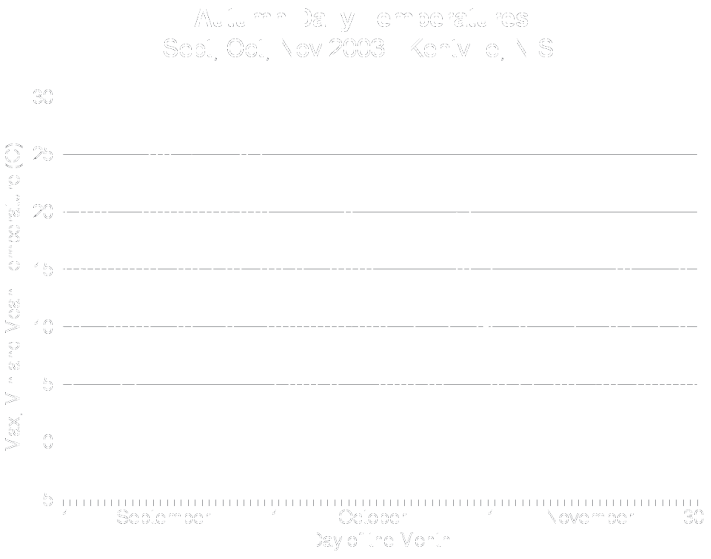
Every month this fall was sunnier than the long-term average. The last five years have been sunnier than average, but 2003 was even better than that. September was the outstanding month for sunshine, providing nearly half of all we received for the season. But that is usually the case because not only are the days getting shorter as we go into October and November but the cloudiness increases in these later months. Typically, one-third of the days in summer are cloudy in the Valley, but that reverses in the winter, when only one-third of them are sunny.

Everyone remembers November 2002, when the snow fell early in the month and stayed for the rest of the winter. Normally we get 13 cm of

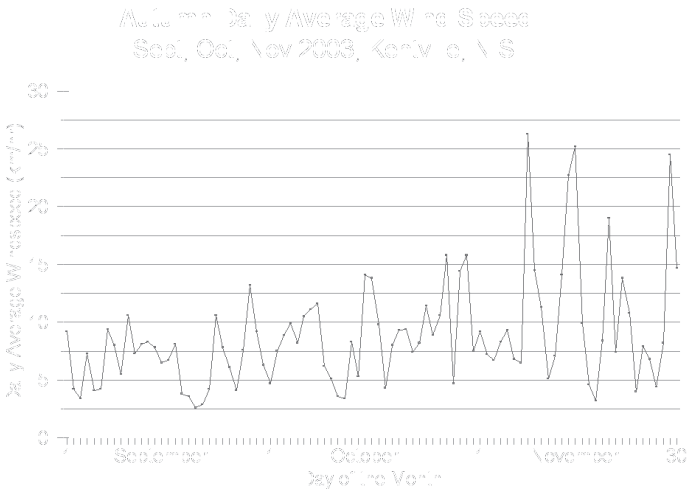
snow in November, but last year it was 46 cm. This year we had none, and no one that I know complained. We seemed to have some very rainy days this fall, and I would have guessed that except for November we had a wet autumn. This is obviously not the case when we look at the table. This year we received only two-thirds of the normal rainfall. Every month this autumn was dryer than the five-year average. In general the autumns during last five years have had normal rainfalls. The only trend appears to be a shift to more rain in October and less in September.

My mistaken feeling about the wetness of the season comes from the fact that we had 38 days of measurable rain during the season. Only in mid-September did we have a full week without a drop of rain. The day before that dry week we had 60 mm of rain drop on us.

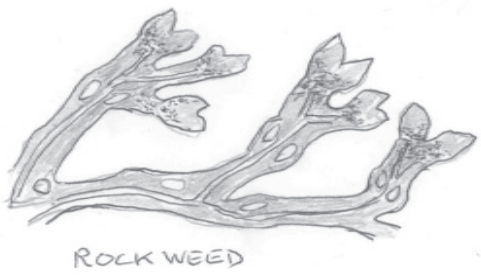
Sunshine and dry weather imply warm days, and that was true of the autumn of 2003. The whole season was a full 1.2°C above the long-term average temperature. The warmest month was September, which averaged 2.0°C above the average of September temperatures for the last 42 years. But this is a trend because the Septembers during the last five years have been 1.6°C above that average. It is just that this year is more extreme than the last five. I have included a graph of the minimum, maximum, and mean daily temperatures for the season. Note that in September the



minimum never touched 0°C, and in October it just barely reached that benchmark twice. It was only in November that the Kentville Agricultural Centre received a heavy freeze. That is very late for this area. It of course varied dramatically with location in the Valley. Our garden in Cambridge was frosted out on the night of October 3.



The other weather plot here is the average daily wind speeds. Can you pick out the day when Hurricane Juan hit Nova Scotia? The graphs shows why many of us in the Annapolis Valley slept through the onslaught of Juan. We had very little wind. In fact the peak in winds on September 28/29 is small compared with the larger winds that we had in October and November.



What's In The Sky?
by Roy Bishop

New Moon: December 23, January 21, February 20, March 20
Full Moon: December 8, January 7, February 6, March 6, April 5
Winter begins on Monday, December 22, at 03:04 (AST)
Spring begins on Saturday, March 20, at 02:49 (AST)

Mars Continues to Dim
Remember the publicity surrounding the exceptionally close opposition of Mars last August? Since then, Earth in its faster inner orbit has been pulling ahead of Mars. Throughout the coming winter Mars will still be visible in the western evening sky, but by the first day of spring it will be five times further from us than it was last August, and only about 2 percent as bright. Mars will pass behind the Sun on September 15.

Mathematically inclined readers may have thought that at five times the distance Mars would be 4 percent as bright (according to the inverse square law: $1/(5\times5) = 4\%$). Why will Mars be "only about 2 percent as bright"? In addition to the inverse square law, there are two effects: 1) Mars was at perihelion last August. Since then it has been moving further away from the Sun. Thus the sunlight illuminating Mars is dimmer. 2) When Mars was at opposition last August, the shadows behind rocks and sand grains on its surface were hidden directly behind those bodies. Since then we have been viewing Mars at more of an oblique angle such that we see less of the illuminated surface and more of these shadows.

Have You Ever Seen Mercury?
Because it is the planet closest to the Sun, Mercury is usually lost in the solar glare. From mid-northern latitudes Mercury is easy to see for only two or three weeks each year, and even then for only half an hour or so, low in either the western evening twilight or the eastern dawn twilight.

The best chance to see Mercury in 2004 occurs during the last two weeks of March. On Monday, March 22, the thin crescent Moon is a good marker to locate Mercury: look low in the west about 7:15 p.m. to the lower right of the Moon. (Note: The computer-generated time of "about 8:30 p.m." stated on the March page of the BNS calendar is wrong; the computer used

to generate this figure had been set for daylight time, not standard time.)

Venus Is the Astronomical Highlight of 2004

Venus decorates the western evening sky this winter. Because of its brightness, it is unmistakable. As the winter progresses Venus appears higher in the evening twilight and shifts more toward the northwest. If it is clear on the evenings of April 2nd and 3rd, be sure to look at Venus in binoculars, when it will be near the pretty open star cluster known as the Pleiades (see the Venus note on the April page of your BNS calendar).

This is an especially interesting evening apparition of Venus because when Venus catches up to us and passes between Earth and the Sun on June 8, 2004, it will cross directly in front of the Sun, appearing as a black silhouette. Such a "transit" of Venus is a very rare event. The last one occurred in 1882, so no living person has seen a transit of Venus! Transits of Venus are as celebrated as appearances of Halley's Comet.

Jupiter and Saturn Dominate the Winter Nights

Jupiter is in the eastern sky this winter, rising near midnight in December and then progressively earlier until it rises at sunset when at opposition on March 4. It will be bright and obvious in the eastern sky.

Saturn is at opposition on New Year's Eve. This is the point at which it is closest to Earth and visible in the sky all night long. Because of the tilt of Earth's axis and the elliptical shape of Saturn's orbit, this is an especially favourable opposition of Saturn for observers at our northern latitude. Saturn will be higher in the sky and closer to Earth than it has been for 30 years. (See the note concerning Saturn on the January page of the BNS calendar and the "five planets" note on the March page.)

Smaller Tides for the Next Few Years

Isaac Newton said that trying to understand the Moon's motion made his head hurt. Take an aspirin and read the remainder of this article to find out why the tides for the next few years will be less extreme.

The two tidal bulges raised by our Moon are aligned with the Moon, one on the side of Earth facing the Moon, the other on the opposite side. Because the Moon's orbit is tilted relative to Earth's equator, the two tidal bulges spend most of the time not in the equatorial plane and this

tends to diminish the range of the tides (If the bulges were aligned with the poles there would be no tides, since Earth rotates under the bulges from west to east, not north to south).

If the Moon's orbit lay in the plane of Earth's orbit, the tilt of Earth's axis would cause the Moon and its tidal bulges to range between +23 degrees and –23 degrees north and south of the equator during each month. However, the Moon's orbit is tilted at 5 degrees to Earth's orbit. In addition, because of the gravitational influence of the Sun, the Moon's orbit wobbles with an 18.6-year period while maintaining its 5-degree tilt relative to Earth's orbit. As a consequence the north-south range of Moon and its tidal bulges varies between 18 degrees and 29 degrees with the same 18.6-year period.

Since alignment with the equator is favourable for tides, the largest of large tides coincide with the minimum north-south range of the Moon (18 degrees). This happened most recently in 1997. Thus the smallest large tides will next occur in the year 1997 + 18.6/2 = 2006 when the north-south range of the Moon is at its 29-degree maximum.

This is one reason why the greatest predicted tide range on the 2004 BNS calendar (14.9 m on May 6, 2004) is less than the greatest range that was predicted for 2003 (15.6 m on April 18, 2003). (Have you noticed that the December Full Moon has been rising further and further north of east in recent years? This is another consequence of the increasing north-south range of the Moon since 1997.)

A second reason for the lower 2004 tides is that the extreme perigean spring tides in 2003 occurred in April and November, whereas in 2004 they occur in June and December. Because the latter two months are further from the equinoxes, the perigean spring tidal bulges will be at a greater angle to the equator, which again results in less extreme tides.

Extreme tides will occur again in 1997 + 18.6 = 2015 (approximately), when the north-south range of the Moon is again at its 18-degree minimum. Sherman Bleakney likely has that year highlighted so he can again go to the edge of the low tide in Minas Basin and examine a piece of the sea floor that is rarely exposed to view.

An Atlantic Naturalists Network

by Larry Bogan

I was the BNS representative to a meeting of 30 naturalists from the Atlantic provinces. We met at the Memramcook Institute, St. Joseph, NB, on November 14–16. The aim of the meeting was to create a communication network for Atlantic Canada's naturalist clubs.

This was the first of two meetings sponsored by the Canadian Nature Federation (CNF) with support from the Metcalf Foundation, the Nova Scotia Department of Natural Resources, and the New Brunswick Federation of Naturalists (NBFN). The second will be held next year in Nova Scotia. The concept of the networking meetings was initiated during conversations between the presidents of CNF, NBFN, Federation of Nova Scotia Naturalists (FNSN), and naturalists in Newfoundland.

Specific goals of the meeting were to

- lay the foundation for an Atlantic region naturalists network
- strengthen existing communications between CNF, NBFN, FNSN, and naturalist clubs
- help local clubs in more effective conservation in conjunction with other clubs
- increase recruitment of new members, especially youth
- increase the profile of naturalists and nature conversation

Newfoundland had three participants, Nova Scotia nine, New Brunswick 17, and CNF one. PEI naturalists were unable to attend. We were aided by a facilitator and an administrative assistant. The Memramcook Institute, a learning and vacation resort with roomy and comfortable facilities, was created in 1966, using the buildings of the former College and University of Saint Joseph (founded in 1864).

We learned about the foundations of the CNF network and its plans. A network already exists between provincial clubs and the federations in Nova Scotia and New Brunswick. Newfoundland and PEI do not have naturalist federations. A few clubs such as BNS are affiliates of CNF and FNSN; some clubs have no affiliation. The network would be available to all clubs, but would not obligate any to participate.

We had an inspiring and informative session with case studies of projects. Jim Wilson, of the Saint John Naturalists, described their ongoing project of counting sea birds migrating past Point Lepreau. He outlined the development of the idea, getting partners and funds, and building the observing blind. The club's membership then enthusiastically donated time to regular surveys over a five-year period (now extended to ten).

Roland Chiasson, of Club Naturalistes de la Péninsule acadienne, described their project to locate, survey, and protect colonies of Black-crowned Night Herons. They found new colonies and were able to arrange protection for all but one that was clear-cut before they could find the owner of the property.

Finally, Sabine Dietz, who works with NBFN, outlined the do's and don'ts of fundraising to finance club projects. She has been active in funding efforts for nature youth camps in New Brunswick as well as other projects.

Sunday morning, in our last session, we discussed and created three projects for which the networking will be used:

- a young naturalists project to enroll more young people in naturalist clubs
- an asset inventory to show funding agencies the value of our clubs and act as examples for other club projects – clubs and federations will be asked for contact and resource information to be put in a central database at the CNF I am a member of that working group
- a networking exercise for New Brunswick in countering the current effort by the New Brunswick forestry industry to double the cutting on Crown Land and change most of the forests into spruce and pine plantations (Although this is a New Brunswick project, the network will be used to provide support from outside and hopefully influence the outcome. This threat could spread to other provinces and we all have an interest in the result.)

The conference ended with all participants agreeing to keep in touch and in essence creating the beginnings of a network. I had already known all the Nova Scotia participants through my position on the FNSN board and now I knew most of the representatives in New Brunswick and Newfoundland. The second meeting will hopefully expand on this and strengthen a larger network of naturalists.

Treasurer's Report – Year Ending August 31, 2003

We ended the year with an excess of revenue over expenses of $6,143, with many thanks to calendar sales. Special thanks go out to those who made donations to the Society during the year: Curtis and Margaret Chipman, Jim Laceby, Arthur Irving, Minas Basin Pulp and Power, Renee Adams, Brenda Coldwell, Rick and Janet Whitman, Edward and Evlyn Eagles, Gerald Porter, Jim Wolford, Celia Corcoran, Leslie and Neil Jordan, King and Ruth Butler, Mary Conlin, Owen and Janice Stephens, and Donna Crossland.

Paid memberships in the Society for the year were 185. For the previous six years (170, 194, 173, 183, 209, and 206) membership has been relatively constant.

Harold Forsyth, treasurer

BNS – Balance Sheet

Year ended August 31	2003	2002
Assets		
Current		
Cash	$ 14,473	$ 8,119
Money Fund	15,707	15,340
Mutual Funds (1)	14,000	14,000
Accounts receivable	763	1,228
Inventory of books at cost	4,048	4,156
Inventory of crests at cost	359	364
	49,350	43,207
Liabilities		
Current		
Payables and accruals	$ 0	$ 0
Equity		
Surplus	49,350	43,207
	$ 49,350	$ 43,207

Notes:

(1) Mutual Funds Book Value Market Value		
Clean Environment International	$7,000	$2,987
Fidelity Global Asset Allocation	$7,000	$5,167

President, George Forsyth; Treasurer, Harold Forsyth; Auditor, Fred Chipman

BNS – Statements of Operation and Surplus

Year ended August 31	2003	2002
Revenue		
Advertising	$ 350	$ 475
Books	237	515
Calendar	9,412	7,748
Crests	10	0
Donations	2,329	2,674
Federation dues in	150	195
Grants: Career Summer Placement	0	0
Fly Project	0	9,775
Herpetology Atlas	33,250	30,200
HST rebate	763	1,228
Interest	368	240
Membership dues	2,999	2,781
Other	0	102
	49,868	55,933
Expenditures		
Administration	192	180
Awards and Meetings	250	191
Books	108	229
Calendar	7,174	6,899
Crests	5	0
Federation dues out	145	220
Fly Project	0	10,235
Herpetology Atlas	32,992	30,209
Memberships	30	30
Nature Centre	172	428
Newsletter	2,657	2,628
Summer Student	0	94
	43,725	51,343
Excess of revenue over expenses	$ 6,143	$ 4,590
Surplus, beginning of year	$43,207	$38,617
Excess of revenue over expenses	6,143	4,590
Surplus, end of year	$49,350	$43,207

Blomidon Naturalists Society

2004 Membership Fees and Publications Prices

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

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

Harold Forsyth
10120 Highway 1, RR 2, Wolfville, NS B4P 2R2

No.	Membership classification	Price	Total
____	Individual adult	$15.00	$_____
____	Family (number of family members ___)	18.00	$_____
____	Junior (under 16 years)	1.00	$_____
____	Federation of NS Naturalists membership	5.00	$_____
	Tax-deductible donation		$_____
____	2002 BNS calendar ($12 + post.)	13.50	$_____
____	*Natural History of Kings County* ($15 + post.)	17.00	$_____
____	Annotated checklist of Kings County birds	6.00	$_____
____	Blomidon Naturalist crest	5.00	$_____
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Astronomy	Roy Bishop		542-3992
	Sherman Williams	542-3598	542-5104
	Larry Bogan		678-0446
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	Gordon & Judy Tufts		542-7800
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Mammals	Tom Herman	585-1469	678-0383
Rocks & Fossils	Geology Dept Acadia U.	542-2201	
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