

Blomidon Naturalists Society



SUMMER 2014 NEWSLETTER

Volume 41 · Number 2

❖ THE 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

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BNS Newsletter

The Blomidon Naturalists Society Newsletter is published quarterly (March, June, October, & December) by The Blomidon Naturalists Society.

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Typeset in Rod McDonald's Laurentian & Slate Sans by Andrew Steeves. Printed offset and bound at Gaspereau Press, Kentville, Nova Scotia.

THE BLOMIDON NATURALISTS SOCIETY

P.O. BOX 2350

WOLFVILLE, NS B4P 2N5

www.blomidonnaturalists.ca

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BLOMIDON NATURALISTS SOCIETY
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:

1 – 25 GASPEREAU AVENUE
WOLFVILLE, NS B4P 2C5
jtimpa@ns.sympatico.ca

Digital photographs should be submitted to
doug@fundymud.com

**Submission deadline for Summer:
August 31, 2014**

Out and About

Jean Timpa, editor

How absolutely lovely to see the sunshine, to feel its warmth again, and, especially, to relish its life-giving nourishment in all those masses of green leaves, new blossoms, forming fruit and the awakening of companion animal life. Winter was a record breaker in so many ways, and few, if any, creatures were sorry to see it go away.

Cape Breton Highland National Park officials announced in the *Chronicle Herald* that they plan to do controlled burning along the Middle Aspy River near Cape North in order to see what happens when they have a fire in the predominately Black Spruce / White Birch forest type. Having lived in Pleasant Bay, which is not far away and reasonably similar in ecotype, I just could not believe my eyes when trying to assimilate this proposed experiment. There is no such thing as a controlled burn! There may be a hoped-for controlled burn, but a number of attempts have had disastrous results, such as one in the western part of the United States six or seven years ago. Wind came up, and the now-out-of-control fire went on for days and days and did unspeakable amounts of damage and loss of life to plants and animals, and perhaps to humans even. I no longer remember the specific details, but I do know that there was a big uproar over the decision to attempt such an act of chance. Deliberately setting fires in woods as an experiment does not say much for respect to the animals and plants that cannot escape such infernos. A terrible fire in 1947 or thereabouts, as a result of a poorly snuffed-out campfire, scorched the lower part of the McKenzie River and took out many of the homes in Pleasant Bay, which finally had to be abandoned by boat. Few people now would remember it, but even in 1968–71 the vegetation was showing few signs of maturity. It has

made considerable progress since then. Where has common sense and civility gone?

A great many thanks to all who contribute so many good bits and pieces to the running of BNS activities, and to those who turn out to them. We are having a grand picnic to celebrate our 40th year (see details under Field Trips), so we hope for an especially fine turnout to it and all the other events that James has worked so hard to bring to us.

CLUB NOTES

Board of Directors Report

By John Owen, BNS president

YOUR board had a regular meeting on May 22, 2014. The following is a summary of the meeting and discussions.

BNS Bursary: No suitable candidates were selected. Further discussions with Acadia are in progress to ascertain that the bursary be communicated more widely at Acadia to increase the number of applicants.

BNS 40th anniversary: The celebration will be a family picnic at the Kentville Research Station to be held on Saturday, August 9, 2014. The picnic will be for BNS members and family at no charge. There will be a donations box for those who wish to make a donation to BNS. More detailed information will be sent to members via e-mail.

Finance, Membership, Green Dragon Program: The current balance of the BNS bank account is \$14,000, and there is \$76,000 in the endowment fund. With regard to BNS membership, members have been slow to submit dues, with 125 paid member to date.

As reported previously, the board felt it was prudent to review the

Green Dragon program, and it will not be run in 2014 in present format, mainly due to finances and recruiting suitable leaders. The Young Naturalist Clubs in the Valley were contacted and attended the BNS board meeting to determine if BNS can achieve objectives by supporting the Young Naturalists. Further meetings are planned to have something ready for 2015. There was also a presentation from a new group, Nature Awareness School, and this will also be followed-up to determine if BNS goals can be achieved.

Annual General Meeting: The AGM is scheduled for the November monthly meeting. The nomination committee will be soliciting for candidates to be members of the BNS board for 2015.

The next BNS board meeting is scheduled for August 21, 2014.

CLUB NOTES

2015 BNS Natural History Calendar: Call for Photos

Calendar committee:
Sherman Williams, Pat Kelly, Roy Bishop

PHOTO submissions are invited for possible use in the 18th edition of our society's Natural History Calendar. Submissions should be in electronic form: JPEG format, with file size between 300 kB and 3 MB.

Photos should be of natural history interest, preferably taken in Nova Scotia. Please submit no more than ten (10) of what you consider to be your most suitable photos.

Suitability involves technical quality (sharp focus, not under- or over-exposed), composition (object of interest nicely positioned,

no distracting background), content (a photo that calendar users will enjoy looking at for a month), and one that is not too similar to photos appearing in recent BNS calendars. Deadline for submissions: Labour Day, September 1. Send submissions to:

Roy Bishop

RLB@eastlink.ca

RR 1, Avonport, NS B0P 1B0

542-3992

CLUB NOTES

Upcoming Events

WE will be holding several special events in 2014 to commemorate the 40th anniversary of BNS. Watch the Newsletter, our website (www.blomidonnaturalists.ca), the BNS and NatureNS e-mail lists, BNS Twitter feed (@bns1974), and other local media for information as the schedule of events unfolds. We will also be holding a special speaker series throughout 2014 – *BNS: 40 Years and Counting* – featuring local experts reflecting on changes observed since the early days of BNS and providing vision for the decades to come.

MEETINGS

Unless otherwise noted, all meetings are held at 7:30 p.m., usually on the third Monday of each month, in Room BAC241 of the Beveridge Arts Centre of Acadia University on the corner of Main Street and Highland Avenue, Wolfville. Parking is available off Highland Avenue, on Acadia Street, and at the parking area around the Robie Tufts Nature Centre. Everyone is welcome.

There are no monthly meetings in July and August, but see the Swift Night Out event scheduled for Friday, July 25.

Monday, September 15, 2014 – *Leatherback Turtles: Treks of the Titans*. Kathleen Martin and/or Mike James will give us an update on their extensive research on Leatherback Turtle migration and recent conservation efforts of the Canadian Sea Turtle Network. Their work was in part spawned by mentor and long-time BNS member Dr. Sherman Bleakney, who suggested that Leatherbacks might be regular visitors to Canada. In fact, Nova Scotia's waters prove to be vitally important!

Kathleen is the executive director of the Canadian Sea Turtle Network – a non-profit organization involving scientists, commercial fishermen, and coastal community members – which works to conserve endangered sea turtles in Canadian waters and worldwide. The group won the Gold Canadian Environment Award for Conservation in 2007. Kathleen is adjunct professor in Dalhousie University's School for Resource and Environmental Studies. She is interested in sea turtles and how communication affects conservation. She has also published seven nature books for children. Kathleen and Mike's work was recently featured in the CBC *Nature of Things* documentary *Trek of the Titans* (www.cbc.ca/natureofthings/episodes/trek-of-the-titans).

Monday, October 20, 2014 – *Wicked Plants – a Halloween Special*, with Twila Robar-DeCoste. Note: This talk takes place in room BAC244. It is a joint meeting with the Valley Gardeners. Come and explore the *dark side* of some of our well-known plants.

Twila has illustrated numerous books and publications for such clients as Nova Scotia Tourism, the Nova Scotia Museum of Natural History, Agriculture Canada, Ducks Unlimited, *Canadian Geographic*, and several natural history books for local naturalists such as Dr. Merritt Gibson.

Monday, November 17, 2014 – *Four Decades of Adventures*, with Bernard Forsythe. Many great scientists and naturalists have been spawned in the Annapolis Valley this century, and Bernard Forsythe is one of the most knowledgeable, passionate, and highly respected of them. He has made great contributions to our knowledge of local flora and fauna through long-term involvement in the Maritimes Nest Records Scheme (he has submitted over 3,000 records), Barred Owl nest-monitoring programs, and orchid and wetlands excursions. His commitment to field research is paralleled by his passion for disseminating knowledge to others. In 2013, the Canadian Wildlife Federation gave Bernard the Stan Hodgkiss Canadian Outdoorsperson of the Year Award, presented to an “outstanding individual in the field of conservation.” Bernard has been a member of the Blomidon Naturalists Society since 1975 (year 2) and in that time has given many presentations and led many field trips.

In this talk Bernard will reflect on more than four decades as a naturalist in Nova Scotia and what he has seen in that time – for better and for worse. His stories of adventure will be told using imagery cast by the warm glow of a slide projector.

FIELD TRIPS AND OTHER NATURE EVENTS

Saturday, June 21, 2014 – *Marsh Madness!* Miner’s Marsh – an inter-generational bioblitz in downtown Kentville, led by several local wildlife and wetland experts. Contact James Churchill (681-2374, jamesLchurchill@gmail.com).

Day creatures: From 10 a.m. to 2 p.m. we will explore the biological richness of the marsh, including aquatic life, birds, terrestrial insects, and plants using binoculars, nets, hand lenses, microscopes, and field guides. Over lunch, Purolator will hold a “Tackle Hunger” cash BBQ and will be accepting donations for the local food bank.

Night creatures: Beginning at 9:15 p.m., Andrew Hebda of the Nova Scotia Museum of Natural History will lead us on a search for

amphibians, marsh birds, bats (with ultrasonic bat detectors), and moths and flying insects (using black light).

Participants will learn about finding, observing, and identifying wetland species and ecologically responsible interaction with nature. We will generate a list of species for the day and create an online map to display our results. This event is child- and family-friendly. Come prepared with sunscreen, rubber boots, dip nets, binoculars, flashlights (for the night), and food-bank items. See www.blomidonnaturalists.ca/marshMadness for event details. Access to Miner's Marsh is at the back of the Kentville Court House parking lot (87 Cornwallis St).

Saturday, July 5, 2014 – *Amethyst Cove Rockhounding and Photography*. Building from the success of the first trip with BNS in October, 2013, Fundy Rocks member Chris Sheppard (@ScotianHiker) and Don Crowell will join BNS for a second rockhounding and photography trip to the Cape Split area. This trip will comprise a descent into Amethyst Cove and a trek along the shore to Amethyst Cove proper. Meet at the parking lot to the Cape Split trail at 9 a.m. This will be a strenuous hike and appropriate gear is required for the steep climb down and up: appropriate gear includes good boots and good gloves for gripping ropes. Chris will check on conditions, and a decision will be made by 7 a.m. on the day of the hike as to whether the hike will proceed. Notification will be posted on www.facebook.com/FundyRocks, or you can contact Dave at 542-3390.

Friday, July 25, 2014 – *Swift Night Out*. 6:45–9:15 p.m. Our second annual evening of Chimney Swift celebration during Wolfville's Mud Creek Days. The night will begin with talks by Chimney Swift experts in room BAC132 of Acadia's Beveridge Arts Centre. After the talk, we will trek downtown to the Robie Tufts Nature Centre to witness the spectacular nightly roost of the provincially endangered Chimney Swifts. Official counting of birds will begin around 8:10 p.m. This is a kid-friendly event with multimedia and activities for children. In case of poor weather, we will reschedule to Saturday, July 26 (a change of

date will be announced on the BNS website: www.blomidonnaturalists.ca/swiftNightOut).

This is a joint event between the Maritimes SwiftWatch program of Bird Studies Canada, the Nova Scotia Bird Society, and the Blomidon Naturalists Society.

Saturday, August 2, 2014 – *Milkweed and Monarchs* – Larry and Alison Bogan. Meet at the Bogan house (6539 Brooklyn Street, Brooklyn Corner) at 10 a.m. or meet at the Wolfville waterfront at 9:30 a.m. to travel to Brooklyn Corner together. During the trip, participants will look at the Common Milkweed in the Bogans' field and survey for eggs and caterpillars of the Monarch butterfly. Alison and Larry will explain the process of raising the Monarchs from egg to adult and how they tag the adults for migration. We will also look for other butterflies that might be in the field. The field is a Monarch Waystation, and the Bogans will explain how an area can get such a designation. If any one wishes to transplant milkweed to their garden to make habitat for Monarchs, bring a plastic bag to carry some roots. Alison has a butterfly garden and will show and describe the flowers and plants there.

👉 BNS: 40 YEARS AND COUNTING 👈

Saturday, August 9, 2014 – *BNS 40th Anniversary Picnic Celebration*. Members and guests are invited to a pork barbecue at the picnic grounds of the Kentville Research Station to celebrate 40 successful years of the Blomidon Naturalists Society. Attendees can choose from a number of events happening before and after the BBQ:

3:30 p.m.: Meet at the picnic grounds, where we will have a number of field trips:

Ravine Towering Trees (all ages) – Kentville Ravine has some of the oldest and largest trees in the province. Ed Sulis will co-lead this trip to find some of the best candidate trees, and we will measure

their diameter, height, and crowns using a number of techniques.

Other trips will be announced.

5:00 p.m.: Kids' Scavenger Hunt (picnic grounds, kids)

5:30 p.m.: BBQ (picnic grounds, all attendees) – whole roast pig and salads, cold drinks, and cake

8:15 p.m.: Night Hike (picnic grounds) – An excursion through the Ravine in search of owls, nightjars, amphibians, and bats. Sunset is at 8:30, so bring a flashlight!

For the caterers, *we must know how many people will be attending.*

Please register by contacting Denyse Kyle before July 25 (denyse-kyle@eastlink.ca; ph: 902 365 2504).

To get to the park, proceed up the hill of the Agricultural Research Station at the east end of Kentville, go left around the main building and on up the hill. Please come protected against the sun and mosquitoes.

Saturday, August 16, 2014 – *Minas Basin Shorebirds*. Leader Rick Whitman (542-2917, rick.whitman@ns.sympatico.ca). This field trip will focus on the shorebirds that visit the Minas Basin to fatten up on mud shrimp and other foods on their way south. We should see at least 4–6 species. We may also see Peregrine Falcons, in which case we'll see fewer shorebirds. We will meet at Evangeline Beach and walk toward East Point at North Grand Pre. High tide this date is 6:20 p.m. and will be 13.0 m high. The birds should be very busily feeding during our walk. Meet at Evangeline Beach, North Grand Pre, at 1 p.m. Some of the walk will be in the mud/silt areas. Drizzle and very light showers will be tolerated. There is no rain date.

Friday, August 22–Sunday, August 24, 2014 – *NOVA EAST 2014*. 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>.

Saturday, September 13, 2014 – *Launch of Tree Swallow Nest Box Project*. This is the initiation of a long-term co-venture between BNS and the Young Naturalists Club. Participants will meet at 9 a.m. at the workshop of Ed Sulis (107 Canaan Ave, Kentville) to assemble nest boxes (all materials and tools will be provided). We will then travel to a nearby marsh (likely Miner's Marsh) to install the boxes. This will be a long-term project to provide nesting sites for Tree Swallows and to allow us to observe and study their behaviour (e.g., arrival times in the spring, pairing and nesting success, feeding rates of nestlings). Contact James Churchill (681-2374, jamesLchurchill@gmail.com) for more information or if you would like to be involved in the project.

Saturday, September 20, 2014 – *Paddle the Historic Cornwallis River*. Dusan Soudek will guide a paddle down Kings County's historic Cornwallis River, starting at Coldbrook (South Bishop Road) and finishing on the upstream side of Kentville. The trip will take us through some interesting pastoral landscapes. The river is flowing fast through some sections of the route, but there are no true rapids. A climb over a beaver dam or lining/wading a very short section of riffles may be necessary. The last few kilometres of the route pass through a large marsh, the Kentville Migratory Bird Sanctuary. Bring all mandatory safety gear, food, drink, rain gear, and a change of clothing. Dress warmly! We will be meeting at the westbound side of Exit 14 (Coldbrook, Kentville) of Highway 101 at **9:30 am**. In case of inclement weather the trip will be postponed until Saturday, September 27. To pre-register and for more information, contact Dusan at soudek@ns.sympatico.ca.

OTHER EVENTS TO WATCH FOR IN 2014

Citizen Science Night – a night to showcase and foster our DIY spirits.

'Twas the Night before Tuesday ...

by Sherman Bleakney

This is a field trip report from Monday, April 4, 1988, about a Canada Goose flypast, with a preamble by the author, explaining why it's appearing again here.

PREAMBLE

PERSONALLY, this year of 2014 is special, and for quite different reasons so was the month of April in 1988. A special year because the Blomidon Naturalists Society is now 40 years old. It is particularly special for me because I was guest speaker at that first meeting, March 26, 1974.

A special time of year because in the 1980s my wife and I had an extra-special late evening birding ritual. We would drive to the Wellington Dyke Aboiteau and sit on the west face of the wall, from sunset until darkness, enthralled by the honking flocks of geese flying toward us out of the sunset, often flying so low over our heads that we could hear the sounds of their wingbeats. It was magical, and even inspirational (see below).

In 1988, I decided that BNS members would also enjoy this experience. So, 26 years ago, I organized an evening field trip for Monday, April 4. As you probably know, if you lead an excursion, you are expected to submit a descriptive report.

The following was my report, delightfully illustrated by Mary Pratt. Just last week I rediscovered this BNS Newsletter page and immediately thought it would be fun to share this on its 26th birthday. Ian McLaren's topic, *Birding* (presented at the April BNS month-

ly meeting), was too tempting an opportunity to ignore. So I read out my 1988 report to the assembled naturalists on April 21, 2014.

You may feel that this poem has a familiar structure. It is with thanks and apologies to Clement C. Moore (1779–1863) that I acknowledge his yuletide poem “A Visit from St. Nicholas.”

Now remember, all the action began on a Monday evening, in 1988.

FIELD TRIP REPORT

'Twas the night before Tuesday, when all through the county
Not a creature was stirring, not even a mountie.
The binocs were hung about necks with great care,
In hopes that some geese would surely be there.
The birders were nestled, all snug in their coats,
While visions of partial albinos danced up their hopes.
So Jim with his scope, and I with one more,
Stopped off at Port Williams, and saw geese there galore.
Albinos were absent, but there was a strange sound;
Off went Williams and friend, snow buntings they found.
At Wellington dyke there arose such a clatter,
'Twas Richard and Bernie, re some avian matter.
Away to the west, a killdeer was heard,
Then a snipe, and a duck, and some other queer bird.
When out of the sunset, what did nature release,
But a miniature wedge, of eight tiny geese.
In the lead was a gander, so strong and so steadfast,
That I knew in a moment, this must be the flypast.
With wing beats majestic, in skeins as they came,
As they honked and wings whispered, I called persons by name.
Now Merritt, now Harold, now Laura and Brenda,
Be quiet, be quiet, or to cars I will send ya.
Cup hands to your ears, as they pass overhead,
'Tis a sound to remember, when back in your bed.
Then they honked rather loudly, as they flew out of sight,

“Happy birding to all, hope you had a nice night.”

MEANWHILE, BACK AT THE BEGINNING ...

The following report by Jean Timpa appeared on page 1 of the first BNS Newsletter in August 1974:

During the evening of April 21, approximately 60 persons led by Professor Sherman Bleakney explored Lower Canard primarily in search of wild geese and to listen to various frog calls. On the drier pastureland we were greeted by the songs of the Savannah and Song Sparrows. Once on the marshland, although there was disappointingly little light left, we were able to detect flock after flock of geese by their silhouettes and honking as they flew from the fields back to the sea for the night. When one flock changed direction suddenly over our heads, the rush of air against their wings could be heard. As well, common snipe were frequently heard winnowing. Before leaving the gymnasium parking lot, Prof. Bleakney showed preserved frog specimens and played a tape recording of the various species songs. The tape was again played on the marsh but evoked only one or two peepers to speak out very briefly. Prof. Bleakney forewarned that the unusually cool spring evenings had dampened the frog choruses normally heard at this time of year.

FIELD TRIP

Greenfield, Peck Meadow Birds

by Rick Whitman

MAY 17, 2014 – This joint BNS/NSBS field trip enjoyed great weather and good birding. There were 12 participants for the

morning session at Greenfield, 5 for the afternoon at Peck Meadow. A large emphasis was placed on ID of all songs heard, but by the end of the day most of the warblers listed below were seen well. Several were photographed very well and will likely be shown on the NSBS Facebook site. Keith Lowe kept the species record, which is much appreciated.

Warblers: Ovenbird, Northern Waterthrush, Black-and-White, Common Yellowthroat, American Redstart, Northern Parula, Magnolia, Blackburnian, Black-throated Blue, Yellow-rumped, Black-throated Green.

Others of note: Broad-winged Hawk, Ruffed Grouse, Chimney Swift, Pileated Woodpecker, Eastern Phoebe, Gray Jay, Boreal Chickadee, Swamp Sparrow.

Total species for the day: 46

FIELD TRIP

Herbert River Canoe Trip

by Patrick Kelly

SATURDAY, APRIL 12, 2014 – This year, as you may recall, winter held on to Nova Scotia with a tenacious grip. On the date of the field trip, there was still snow and ice in the woods, and more water in the river than I can recall. We only had four craft on the water this year. Douglas Guptill brought his kayak out from Halifax. Kristiina Lehtonen, from Port Williams, had a kayak. Marcel Comeau, who had come all the way from the Clare area to canoe on a new river, had an interesting canoe, very high sides, and narrow, so that one had to kneel on a foam pad to paddle it. As you will see, it's a good thing he came along! And with me in my canoe was Denyse Kyle,

who had finally decided to see what it was like to canoe on a river instead of a lake.

We started, as in past years, from the bridge where Highway 202 crosses the Herbert River. The section from there to the bridge at Highway 14 contains the trickiest section of the river. There is a camp/cottage by the river where a large island midstream collects dead trees carried down by the meltwater, and the main flow of the river makes a 90-degree turn, with the direction variable from one year to the next. Those who have read of past trips (or been on one) may recall the large “limbo tree” that one had to go under. This year it was firmly up against the island, with most of the water going to the right. This is where some of us got to unexpectedly test the water temperature. Denyse and I were not quite able to make the turn, coming up sideways on the large tree trunk, which still had a few branches that one instinctively leans over to avoid. The problem with leaning over too far in a canoe, especially when you lean over on the side that the current is pushing against is that you fall out – remarkably quickly!

Denyse lost her paddle and hung onto the tree, while I managed to keep my paddle and a hold on the canoe, which was now filled with water and wanted to go left around the island. The water here was also deep enough that I couldn’t touch bottom. Fortunately, international rescue, in the form of Marcel, was quickly on the scene. He is a very experienced canoeist. (“How experienced?” you may ask. Well, there were times when he would stand in his canoe for several hundred metres at a time to give his legs a stretch!) Once I found a place where I could touch bottom and the bank was low enough to get out of the water and pull the canoe ashore, I headed over to the other side of the island. Douglas had his canoe propped up on a tiny island. I had missed his coming to help us only to end up tipping over himself.

So three of the five of us had now been dunked. In Denyse’s case it was more of a river canoeing *baptism*. She was surprised that water was not as cold as she had expected, noting that she had been in the Northumberland Strait for early summer swims where the water was

colder. She also appreciated why I had indicated one rope at the start of the trip as being the single most important one – the one used to tie the backpacks to the canoe for just such an eventuality. Still, most of her second set of clothes had gotten wet.

Marcel showed us the gear he uses – conventional large plastic food containers, but with a snap on top with a screw-in centre that makes them totally waterproof. Douglas lost his food backpack, which we could see stuck on the riverbank downstream, but his black wool toque was gone (perhaps a seal in the Bay of Fundy is now having fun modelling it). After we used some group hugs to restore some body heat, and while we were getting ready to set off again, a small party passed us, including one canoe with a German shepherd. They had no trouble with the curve and were able to fetch Douglas's lunch-pack and return it.

Off we went again, with one more stop to eat as well as a bit more group hugging for heat. Marcel also taught Denyse and me how to use the current to move a canoe to whichever side of the river you want, a skill that helped us on the only other place that was a bit of a trouble spot.

There were few birds – to be expected with the late winter. While some Canada Geese did a close overpass, and both a Bald Eagle and an Osprey flushed ahead of us several times, the usual amount of bird song was missing.

In the lower parts of the river we saw something I had not seen in the past. On the sides of the river there were areas where the ice had stripped the bark off the trees on the side facing upriver. Often more than a metre was gone, and for some of the smaller trees most of the bark on that side was missing; you could see that the ice had gone right over them. It's amazing that trees can survive such harsh conditions, yet they seem to manage quite well.

Near the end of the trip, we stopped at the usual place where there is a geocache. The Bloodroot that is normally in bloom had only just started sending up shoots. It was between here and the take-out point that we finally had to push the canoe over some rocks. The last difficulty was getting up over the mud on the bank just past the

bridge, as the water level was not high enough to get off directly on the rocks, but we all managed. If all had gone well, this trip would likely have been quickly forgotten, but I think everyone agreed it was one they would remember for quite some time!

FIELD TRIP

A Kübler-Ross Clean-up of the Elderkin Brook Tributaries

by James Churchill

SATURDAY APRIL 19, 2014 – A Tonka truck and a porcelain sink sit on top of dozens of bags of barely discernible items at all stages of decomposition. Peeking out are a Hostess chip bag from the '80s and an old pop can claiming that Pepsi-Cola is the “The #1 Cola of the Maritimes” (how personal!).

The clean-up today was a bit like an archaeological dig – there was decades-worth of trash here: at the road edges Tim Hortons cups were nearly pristine, and cigarette packages had pictures of someone's burnt lungs; farther from the road the cups were earth-toned and degraded, and cigarette packs only had a printed warning (I guess that approach didn't work).

People honked at us as they drove by – maybe assuming we were doing something valiant like a Run for the Cure? Maybe suggesting we get the heck off the road? Maybe not honking at *us* ... maybe just a wedding drive-by ...

Apparently, there are five major stages of grief, which I first learned from Homer Simpson, and cleaning up garbage today seemed to trigger many of them: This is gross ... wait, did he just throw something out his car window while watching us pick up garbage? Ravines

are hard to climb while carrying old tires ... why bother, this will be back in a week. Why did 20 people give up their Saturday morning for this? This is not that bad, really – the ravine is gorgeous, the company is great, 1000 pieces of junk will no longer make it into the brook, it's looking more like wilderness. This is important! I could do this again ... I'd like to do this again.

From cozy ravine wetlands, across Highway 101, through the future site of the Kent development, through the world-renowned Kentville Ravine and out to the chocolate (*I think it's chocolate*) waters of the Cornwallis River – in traversing the Elderkin Brook watershed today we are confronted with biodiversity, rare species, serenity, history, politics, and degradation. When walking in here, it is hard not to think about all these things and about natural legacies. The watershed screams value: past, present, and future.

Epilogue: After the event, no one required a chiropractor (that I know of). In fact, the mood was *Why wait till next April to repeat?* However, those who did not say much might have been farther back in the five stages of grief.

Clean Across Nova Scotia is an annual April clean-up event. This year's Elderkin Brook tributaries clean-up was a joint effort between the Friends of the Kentville Ravine Society (<http://kentvillerravine.wordpress.com>), the Eco-Kings Action Team (<http://www.ecokings.ca/>), and the Blomidon Naturalists Society. We were joined by representatives of the Town of Kentville and the Municipality of the County of Kings. Thanks to Ed Sulis for coordinating the event, Ken Harrison and others for the donation of supplies, and Valley Waste for collecting our haul. My opinions do not necessarily reflect the opinions of others involved.

A Nature Walk on the Jodrey Trail

by Jim Wolford

MAY 18, 2014 – A joint field trip for BNS and the Nova Scotia Provincial Parks in Blomidon Provincial Park. Nice weather resulted in about 35 participants who were eager but had to adjust to my very slow style.

I welcomed everyone from the provincial Department of Natural Resources and the Blomidon Naturalists and spoke briefly about the importance of natural spaces that are protected from industrial activities and roads, etc.

Among the participants were Bernard Forsythe, Murray Colbo, Andy Dean, Ian Manning, Jim Jotcham, Kathleen MacAulay, Gary Ness, and my field assistant Pat Hawes.

On an earlier walk I experienced pesky hordes of hovering blackflies, but after the walk I discovered very few bites. I invited Murray Colbo today to explain why this happens early in the blackfly season.

Murray said first that Nova Scotia has as many as 70 species of blackflies, only five or so of which bite humans (other species bite other mammals, birds, amphibians, or reptiles). And there are five or so species that don't bite at all (that's nature for you, and a couple of lessons on biodiversity).

Murray patiently explained that every spring new emergent female blackflies store up proper energy during their larval development in fast streams to be able to lay one set of eggs. So at first these new flies do not bite, but after that first batch of eggs is laid, those females need blood in order to develop their next sets of eggs. (Thus my guess that the earliest blackflies each year were non-biting males was hogwash.)

Murray also had with him the comprehensive guide to freshwa-

ter life forms by Hugh Clifford, who was a professor at University of Alberta Biology back when Murray and I were grad students there in the 1960s. And as usual I had my handy colourful small guide called *Pond Life* (Golden Press), which I heartily recommend to anyone interested in freshwater life.

On our short walk through the woods, we looked for early spring plants. With this year's very slow and late spring, we found only a few Red Trilliums, a few Spring Beauties, American Fly-honeysuckle, Hobblebush (centre flowers not open yet), *Clintonia* and Toothwort with flower-buds, and a small grass-like tufted sedge (*Carex* sp.) in bloom.

Other plants pointed out included the locally very abundant Wild Leek leaves (an edible wild onion, which of course cannot be picked in a protected area), and the fiddlehead or Ostrich Fern (our edible fern species).

POND LIFE

Along the trail, less than 2 km from the northeast corner of the campground, the big woodland ephemeral or vernal pond (no inlet or outlet, depends on precipitation and runoff) cannot be passed without a stop to look. Someone sent an e-mail earlier this year that the pond was quite full, with water over parts of the trail. Though the water level had receded somewhat, the pond was still quite large. It varies a lot from year to year in fullness and in how much it dries up during the summer. At present it is in recovery from a drought two to three years ago. Vernal ponds are also noteworthy for marked variations in their life forms and abundance from year to year.

As usual on this walk, I used a combination of upturned buckets, enamel pans filled with pond water, and random sweeps with the dip net to show the pond life to everyone, which is a challenge with such a large group. This year's observations are partly explainable by the cool and very late spring, which meant a late start for much of the pond life. Thus only the water fleas (tiny crustaceans) were abundant.



BRIAN MCKIBBIN

Last year this annual sojourn was apparently too late in early June, and we missed out on seeing any fairy shrimps. We hoped to do better this year, and finding just a single fairy shrimp is a mystery. Thus the pond recovery continues, we hope, and I look forward to another attempt in late May or earlier in 2015. This pond is currently Nova Scotia's only habitat for this otherwise-widely distributed species of fairy shrimp.

Here is a list of what we did observe this year:

- single-celled green algae (and other unseen, microscopic life forms like protozoans, rotifers, mites, roundworms or nematodes, segmented worms, etc.)
- a few small tadpoles (possibly of Wood Frogs)
- one clump of fairly fresh eggs of a Yellow-spotted Salamander, only slightly developed
- abundant tiny water fleas (crustaceans related to *Daphnia*)
- only a single adult fairy shrimp (found by Andy Dean), and it was

in trouble (possibly injured by the dip net and having trouble with a planarian flatworm attached to its head)

- gliding black planarian flatworms (common)
- snails (2 kinds)
- a very small leech
- one long, thin segmented worm (earthworm cousin)
- a few water mites (2 kinds: red and dark)
- one fairly large dragonfly larva or nymph
- one damselfly larva or nymph
- a few water boatmen (true bugs)
- a few diving beetle larvae
- several caddisfly larvae in cases of vegetation (2 kinds)
- mosquito larvae (common)
- one red midge larva or “bloodworm”
- one phantom midge larva (a predaceous larva of a non-biting fly)

Winged adult insects included blackflies plus some other black dipterans that looked like small houseflies and were attracted to my perspiration.

Also at the pond we saw a Black-throated Green Warbler, which was heard during our walk, along with Ovenbirds, Blue-Headed vireos, and other species.

FOLLOW-UP

JUNE 16, 2014 – Almost a month later, I revisited the pond by myself, armed with dip net, etc., to see what has developed. What a dramatic change! The water level had dropped two metres or so, and most of our former pond was now land, with upcoming wall-to-wall ferns. Precipitation since May 18 apparently totalled very little, and our cool, late spring did not prevent the evaporation of a great deal of that formerly large pond.

The two remaining pools held very warm water, but had different kinds and amounts of life in them. The western pool, which was very muddy, held lots of medium-sized tadpoles not yet showing hind

legs, several post-hatchling young Yellow-spotted Salamanders (species a guess), several large damselfly larvae, and one diving beetle larva.

The eastern pool was a bit larger but similarly shallow, less than 10 cm deep, and held fewer tadpoles, several young salamander larvae, a few large damselfly larvae and some smaller ones too, lots of snails (all one kind), a few adult crawling water beetles, and a few tiny crustaceans.

Noteworthy plants on my walk were blooming False Solomon's-seal and Bunchberry, and yellow flattened leaves of the formerly luxuriant wild leeks (which will soon disappear, to be followed much later by flowers in later summer).

NATURE NOVA SCOTIA

*2014 Conference &
Annual General Meeting*

by Doug Linzey

FRIDAY, MAY 30 – This year we journeyed once more to the Gaelic College at St. Anns, Cape Breton Island. Having enjoyed the hospitality of the staff there in 2011, and with Jim O'Brien again a willing organizer, and with a hard-to-beat package price, we were happy to go back.

We checked in Friday in time for the opening reception at 7 p.m. It was good to be reunited with fellow naturalists whom we seldom see throughout the year, and to enjoy a glass of wine together and the eclectic mix of music from St. Anns luthier Otis Thomas and friends. Later that evening, a small group retired to the MacLeod House lounge for a wee dram and some stimulating conversation. A

few folks heard the calls of American Woodcock and a Northern Saw Whet owl in the adjoining forest.

SATURDAY, MAY 31 – The usual 6 a.m. birding walk enticed a few keeners into a windy but otherwise dry and not-too-cold outdoors.

At 7:45, we all gathered in MacKenzie Hall for breakfast, following which the young naturalists went off to their various activities and the rest of us grabbed coffees and settled down for some great presentations.

Deanne van Rooyen is an assistant professor of geology at Cape Breton University. She gave by far the best and most cogent explanation I've ever heard of plate tectonics and the formation of present-day Nova Scotia over the millennia. Among other things (like being a world-class harpist), she specializes in the geochronology – gathering clues from rock to put together geological history – of Cape Breton and south-central BC.

Eric Muntz does coyote research in Cape Breton Highlands National Park, using both GPS tracking and traditional snow tracking. He gave us an intimate look into the lives and habits of Cape Breton coyotes, including analysis of the fatal attack on a young woman in 2009. For the most part, coyotes and humans coexist without problems. Eric gave us advice on how to behave when confronted by a coyote in the wild. Like Deanne's geology lesson, this was one of those talks you wish could have gone on for another hour or so.

Peter Austin-Smith rounded out the morning with a talk on the American Marten, a species that would be a lot healthier in Nova Scotia if only we could stop destroying its habitat.

Following lunch, we departed the college in various directions to partake of a choice of field trips. The birders went off with local birder Bethsheila Kent, the botanists accompanied Minga O'Brien to Uisge Ban Falls, a small, brave group sailed off in a Zodiac to explore the ocean bottom with Bruce Hatcher (see Jean Gibson Collins's report below), and the rest of us took a woodland tour with Peter Christiano.

The bird and plant people reported having a good time – the weather was fine and conditions good for walking.

About 15 or 20 of us drove over to Middle River to the Finewood Flooring & Lumber facility, where the owners, Peter and Candace Christiano, took us for a walk through some of their 75 acres of forest on the flanks of the Cape Breton Highlands. The Christianos have been at this location for 30-plus years and have been gradually restoring the forest to a state that can ultimately support sustainable harvesting of fine-grade hardwoods for value-added production. Peter showed us a number of sites using particular silviculture methods, including openings, weeding, planting, trimming, girdling, and judicious thinning. He practices low-impact harvesting with horses and power winches. The property covers a range of elevation, soil types, and previous logging methods. The bones of a once-healthy Acadian forest are here: Sugar & Red Maple, American Beech, Yellow Birch, Red Spruce, White Ash, Ironwood ... Mostly, regeneration is a matter of giving what's already there a fighting chance.

The weather was perfect (18–20 degrees in the woods), and the blackflies were tolerable. Our group was nicely mixed, young and old and in-between, even a babe in arms. There were lots of questions, and we all came away having learned a lot. On the way out via a long driveway through the woods, we stopped for a dust-bathing Ruffed Grouse to yield the right-of-way.

Back at the college, the fancy tablecloths were out. We had cocktails and settled down to a banquet of steak & lobster. Preceding the meal, a special guest, elder Lawrence Wells from the Member-tou First Nation, said a traditional prayer, which, in its addressing the “creator” of the nature we’d been enjoying and learning about, seemed very appropriate for the occasion. After dinner, Bob Bancroft gave a lighthearted slideshow and told stories of encounters with wildlife. Unfortunately, there was just enough cloud cover to prevent stargazing, so the after-dinner group, led by the inexhaustible Joan Czapalay, returned to the MacLeod lounge for further conversation and contemplation of the state of the natural world.

SUNDAY, JUNE 1 – Early-morning birding again (confession: I slept in), looking like a fine day. After breakfast, we had a real treat – Wally Ellison is a born raconteur. He has been chasing Cape Breton waterfalls for many years, and he introduced to us a good selection of them (photos of course). Again, we could have hung around all morning listening to Wally's stories and historical vignettes, but the annual general meeting called.

At 10 a.m., 25–30 Nature Nova Scotia members assembled for the AGM. Bob Bancroft, president, gave the directors' report of activities over the past year, and we heard from the Blomidon Naturalists, Halifax Naturalists, Cape Breton Naturalists, Wild Flora Society, Bird Society, and the Young Naturalists Club (which continues to grow, with branches throughout the province). For all the reporting clubs, membership numbers and activities seem to be fairly healthy this year. Minga O'Brien offered to serve as vice president, which was welcome news, adding some fresh blood to the executive, and Jim Wolford was re-elected as representative of the members at large. Minga replaces Robin Musselman, who has been concentrating – very successfully – on building the Young Naturalists Club. Bob Bancroft, Jean Gibson Collins, and Pat Kelly continue for another year in their roles of president, treasurer, and secretary, respectively.

Following a hot lunch, the group disbanded, a fairly large contingent going off to a boat tour of Bird Island (we hear it was successful) and another, smaller bunch to visit a property in the Lake Ainslie area, before heading home.

Attendance this year was not quite up to last year's at Milford House (just as well we didn't plan to go *there* this year), but on the whole we were pleased with the response. We had 43 Nature Nova Scotia members and 17 young naturalists, who brought along 13 parents or guardians – for a total of 73 people grooving on nature for a fine weekend.

A Lumpy Ride

by Jean Gibson Collins

MAY 31, 2014 – This was an exciting, informative, Zodiac experience, heightened by the rather cool, very windy day in St. Anns Bay. Dr. Bruce Hatcher, an obviously meticulous, skilled, and multitalented individual, took a group of seven, including his former professor and mentor, Dr. Eric Mills, along the more sheltered eastern side of the bay. He explained the geology of the various land formations both above and below the surface of the bay (gypsum cliffs, barachois, crust folds and faults, erosion details, hillside variations that could indicate underlying geological features). As we travelled the shoreline, we had some spontaneous discussions about the effects of climate change on specific, low-lying areas where erosion of roadways and sandy hillsides is already mitigated with boulders.

We stopped for closer observations in two different areas: the lee side of a sandy spit, and the lighthouse on the cliff near the North River estuary, both to explore the sea and to record data. The Nautilus camera enabled us to see the bottom vegetation, noting how it changed with depth and the available light. The sandy spit bottom was filled with grasses, and the lighthouse point (dotted with many lobster buoys that entangled the camera on a few occasions) had scattered kelp; even one of the traps came into view.

At these locations, and also near the mussel farming beds [Did you know that St. Anns Bay is the most productive mussel farm area in the world?], we all helped take measurements using some “primitive” (Secche disk) as well as modern instruments. We assisted in recording GPS location, date, time, water temperature (a surprising 11.5°C), salinity (varies with the amount of fresh water flowing from rivers and off the land), turbidity, and a few other scientific measure-

ments, all of which Dr. Hatcher added to his log of >4,000 such measurements he has taken during his recent career.

Not all was seriousness. We had some fun “riding the waves” – going crosswise, against, and with their movement, not always avoiding spray and splash. The tide had moved out considerably during our 2-hour-plus voyage, so we removed our footwear and disembarked into shallow water and mud, infectious laughter spreading as we struggled to plod our way across the soft, unpredictable bottom and onto dry land. Last person out when – whoops – a sudden fall bottom-wards, then backwards, getting rather wet overall! Dr. Hatcher returned to the windward side of the ramp to load the boat back on the trailer, and we watched his admirable skill. Then, when he got both truck and trailer stuck in the sand, out came a strap to pass around a nearby tree and attach to a powered winch at the front of the truck; with the press of a button, everything moved slowly up onto solid ground.

Thank you for sharing your special boat and your accumulated knowledge with us, Dr. Hatcher. What a marvelous way to learn!

NATURAL HISTORY

Moving On

by Mike McCall

NEWS of dwindling populations of birds, mammals, fish, amphibians, and dates by which they will be extinct comes to us daily. Mishandling of natural resources and loss of habitat due to a growing population of humans, added to long-term climate change, are usually cited as the main reasons for falling numbers. I suppose the upside is that sooner or later, humans, like so many species that have come and gone before us will be extinct, at which time “nature”

can take over and restore the Earth to the imagined pristine state that existed before Adam and Eve entered Eden.

But the time to leave this property is at hand, and I've had a look back at our stay here. And as is the case in other parts of the world, nature isn't exactly as it was when we first became tenants.

I think I've been a good steward of this 75-acre wooded property at Hall's Harbour, but in the 20 years we've lived on it I've observed that a number of species that were here when we arrived are either no longer seen or seen only intermittently. Fairly large sections of the property had been clear-cut by the previous owner between five and ten years before our arrival so that there were large open areas scattered about. Twenty years on, those open areas are now heavily forested; spruce, balsam, and White Pine are doing very well, along with birch and stands of aspen. A healthy stand of hardwoods (ash and maple) occupies about 1 percent of the acreage off in a distant corner of the property. But I wonder whether the reduced number of open spaces and the attendant increase in forested area has been the main cause of the changes in wildlife populations I've seen.

Once the house was built and we were able to observe wildlife regularly, we had a healthy population of White-throated Sparrows not far from the house. I discovered several nests in the first few years, and while we hear their calls and their song in spring and summer, it's obvious that their population has fallen.

I recorded a "lifer" one day as I sat in the area in which we camped: a Swainson's Thrush practically walked over my foot as I sat reading, and in the first six or eight years they had the house surrounded. Now, not so much. Ditto the Hermit Thrush and Veery. The Hermits serenaded us from a partially open field nearby, and we often came across them as we walked the logging trails that snaked through the property; and the Veery lived – and sang – in a secluded corner of the property not far from the house. I haven't heard either one for three or four years. A woodcock returned every March to a corner of a boggy area containing grasses, low bushes, and a few spruce, but it hasn't been heard from in three years. Is it (or a descendent)

unhappy with the forest that has replaced its earlier, less-woody nesting place?

In our first week here, again while we were camped, a Northern Goshawk with young nearby made a determined pass at my head as I walked beneath its perch, but it hasn't been seen since. Nor has the Northern Harrier that used to soar low over our large, open septic bed. I see the occasional harrier in nearby fields along Highway 359, but they don't hunt within sight of the house as they used to. A Chipping Sparrow could always be counted on to nest near the house, but two years ago its nest with four young was found by a predator, and no Chippers have been seen since. Tree Swallows raised and fledged their young from two boxes for several years, but we seem to have lost favour. I built my boxes to the recommended size and incorporated features that were guaranteed to attract them and keep them happy, but after a day or two of scouting in mid-April, they appear to take up residence in the jerry-built, incorrectly placed (according to experts) boxes a neighbour scatters around his house. "Taint fair.

A Red-eyed Vireo after years of attendance seems to have abandoned its favourite singing perch in a tall aspen, and the Black-throated Green Warbler that nested down by our spring hasn't appeared for two years. Close by, a Ruby-crowned Kinglet used to let loose its loud song for what seemed like hours at a time, but that was years ago. Like many Nova Scotians, he might now be serenading the tar sands of Alberta. I could also count on finding a flock of Boreal Chickadees on one of my woody paths, but they too no longer appear; yet their former habitat remains unchanged.

Soon after our arrival, as we walked the property, we became aware of animal trails. The main thoroughfare runs along the precipice that drops off into the vault that contains the Hall's Harbour Brook. We think mainly deer and coyotes used it, but now that we use it as a walking trail they have no qualms about sharing it with us. We camped on the property before building the house, and for a couple of years after, we practically tripped over rabbits whenever we went outside – but no longer. They show themselves rarely though

their tracks, as do all the small critters such as mice, voles, and Red Squirrels when snow is on the ground.

One winter day an Ermine popped up from under our rear deck, and twice, the best hunter of our two cats (no longer in residence) brought us his latest kill, a Short-tailed Weasel. I had no idea a cat could go up against a weasel and survive. The Ermine hasn't been seen in years in either its winter or summer garb.

(Stop the press! This week (May 2014) a Short-tailed Weasel popped out of an opening under our greenhouse.)

Raccoons and skunks are around and pretty much keep to themselves (but I do take in the feeders at night from May until October), while a badly injured porcupine sought – and achieved – peace everlasting under a juniper hedge next to the house.

Its desiccated remains have been left to contribute to the richness of the soil.

I suppose the good news is that most of the species that were here 20 years ago remain. Hairy and Downy Woodpeckers attend the suet pie (when they can shoulder the Blue Jays aside), and Pileateds are seen and heard and have lots of feeding stations in the woods. In our early days here, we went to Sheffield Mills to see Bald Eagles, but a couple of them now regularly patrol the north end of our property (on the Hall's Harbour side). Now and then we see a Peregrine, which we think nests high on the cliffs adjacent to Square Cove. Crows and ravens live and breed in the woods; as I write this in mid-February, about 20 of them are doing a very noisy flypast in loose formation, so we have the cacophony that accompanies the birth and feeding of their young to look forward in a few months. We don't have a wide variety of warblers, but most common ones appear during summer, particularly Yellow-rumped, Magnolia, Chestnut sided, Blackburnian, and, I'm glad to say, Ovenbirds let us know where they are. Another constant is the supply of Northern Flickers, and, while the numbers are down, the Purple Finch serenade can be heard all summer; the earnest musicality of their song always makes me smile. I've only seen one Northern Parula in the area, but last fall we found a nest in a mass of lichen in the woods about 200 yards from the house.

We often hear Barred Owls; in fact a pair fledged two young from our owl box four years ago. Bernard Forsythe kindly mounted the ladder and banded the two owls only days before they left the box. And, bless them, Song Sparrows sing for us all summer, and one even bathed from a rock set in a fish pond in our main deck. A Least Flycatcher endlessly repeats and repeats and repeats its chBEK call from various high perches in the open spaces around the house.

The feeder crowd has been pretty constant: Black-capped Chickadees, Pine Siskins, Red-breasted Nuthatches, Dark-eyed Juncos, and when they deign to pay a call, Common Redpolls. At least once a year we have a shrike or Sharpie alert when we notice all feeder action has ceased and not a soul moves or even blinks, not even the Red Squirrel. We haven't seen any successful attacks, but late last summer (2013) we heard a loud thud! – which we knew from experience was a bird hitting a window. The feeder array is not far from sliding doors that lead to the rear deck, and when we got there found a just-dead Sharp-shin and blood and feathers on the window glass, and a few feet away a just-killed Junco that, barring the window contact, would have been the Sharpie's latest meal. A most unusual sight was that of 22 Snow Buntings lined up at precise intervals, all facing the same direction on the ridge of the house. And finally, I must mention our most constant and most engaging bird visitors: the Hummers, who usually arrive on May 8 but, obviously as a gift to me, have several times arrived on my birthday two days earlier.

My hope is that the next tenants of this property will enjoy the wildlife and the wooded trails that have made my stay here so rewarding and keep a record of what they see. I think I'll leave a copy of this report as a baseline.

Large Raptors Share Territory

by Bernard Forsythe

THE LONG 2013–14 winter delayed egg-laying dates in my Barred Owl nestboxes compared with recent more open winters. Even my backyard owls with food supplied were affected. Their first egg on March 28 was the latest first egg date in 22 years. Several other boxes were visited by owls but no eggs were produced. An exception was the 1.08 km stretch on the south bank of White Rock Pond, where for the third consecutive year three Barred Owl pairs plus a Goshawk couple started family life. Obviously, a large food supply is still available to keep eight raptors of this size, plus their young, happy with smaller-than-usual territories.

In April of 2013 the owls using the old Goshawk nest (see BNS Newsletter, summer 2012) moved to a new box I had erected 36 m south of the hawk nest, while the Goshawks reclaimed their old nest. On April 9, 2014, the first Barred Owl egg was laid in the box close to the old hawk nest, where during March the Goshawks had started repair work. However, no Goshawks were present at the old nest during an April 23 visit. Goshawks regularly build alternate nests in their territories. Taking only a few steps, I spied the new nest in a hemlock tree about 30 m northwest of the old nest. In a flash, both irate adult Goshawks attacked, setting me on my backside before I could back away. This new nest, being only about 50 m from the occupied owl nestbox, was very close quarters indeed.

The Barred Owls at the east end of the 1.08 km line laid their egg on April 10 this year. During a March and early April visit to the owl box at the west end of the line, it was found to contain a sleeping raccoon. How would the third pair of Barred Owls solve the raccoon problem?

Down the bank toward the river, I have a duck nestbox that has been occupied by Common Mergansers in the past. Once, I found a Barred Owl feather on the box entrance. The box floor is only about eight inches square with a four inch square entrance, way too small for large Barred Owls. Having lost their nest to raccoons, the owls would be desperate and investigate any nearby cavities. As I approached the duck box on April 23, a female Barred Owl head filled the small entrance. With great difficulty she struggled several times before squirming through the too-small-for-her box opening. Inside, the box contained three owl eggs. If all the eggs hatch, this alternate home will be very crowded. It shows how cavity nesting birds sometimes resort to inadequate quarters because of the scarcity of suitable cavities.

It has been suggested that Barred Owls and Goshawks cannot breed close to each other. This is certainly not the case along White Rock Pond. Even a tough winter or loss of a nest could not deter four raptor families from living as close neighbours three years in a row.

UNNATURAL HISTORY

Scots Bay Tidal Power Proposal

by George Alliston

INTRODUCTION

THE potential for electrical generation from the Bay of Fundy tides has been recognized for many decades, and many proposals for tidal development have been put forward. To date the only functional tidal project in the Bay of Fundy (and indeed in the Americas) is the 20 MW generating system at Annapolis Royal commissioned by Nova Scotia Power in 1984. Few projects have made it past

the drawing-board phase, although experimentation with hydrokinetic stream-flow turbines (essentially underwater “windmills”) anchored to the bottom of the Minas Channel is currently being conducted. To date one experimental turbine has been installed – its design proven to be woefully inadequate; within a very short time tidal forces ripped off all the turbine blades, bringing this experiment to a premature and minimally informative end. Other, hopefully more-robust tidal-flow turbines are planned to be installed in the near future. (We will attempt to keep BNS members informed about local developments in tidal-flow power.)

In November 2013 the public became aware of a new 1,100 MW tidal power proposal for Scots Bay. This proposal, put forward by Halcyon Tidal Power, claims to cut construction costs by as much as 50 percent compared to previous construction methods. The Halcyon proposal also addresses some environmental problems associated with previous designs. This report attempts to summarize available information (from the Halcyon website and a public meeting held on February 4, 2014) concerning the proposed construction and operation of this facility. For a much more detailed description of Halcyon and its tidal power designs and projects, see the company website: www.halcyontidalpower.com.

THE PROPONENT

Halcyon Tidal Power, a small company based in Maine, has used information obtained from the construction of offshore oil and gas platforms to design and patent (pending) a new approach to marine enclosure construction, integrated this with new turbine technology, and addressed some of the environmental problems experienced by earlier tidal power projects. Halcyon has formed partnerships with large companies to implement projects; Alstom, the largest hydroelectric generator manufacturer in the world, is its largest partner. To date, no Halcyon projects are in operation or under construction. Halcyon’s most advanced project is in the Bay of Fundy at the mouth of the Pennamaquan River near Pembroke, Maine. This project is

in the design and environmental assessment stage. If it goes ahead a 25.6 MW tidal-range facility with a 1,500 ft. “Halcyon Enclosure,” including up to 17 Alstom Power bulb turbines, will be built. The estimated budget for this project is US\$122 million. Scots Bay, the only other project so far initiated by Halcyon, is in the very preliminary stages of obtaining government permits to proceed.

Halcyon envisions a world in which at least 20 percent, and possibly as much as 40 percent, of world current electrical energy use could be supplied by tidal power.

SCOTS BAY TIDAL POWER PROJECT

See Figure 1 for the currently proposed location of the Scots Bay Tidal Power Project. The summary data for the Scots Bay power plant are as follows:

| | |
|--|------------------------|
| Average tidal range | 10 m |
| Turbine generator type | Horizontal fixed blade |
| Diameter of turbines | 3.2 m |
| Turbine operating frequency | 92 rpm |
| Turbine generator rating | 3.63 MW |
| Number of turbine generators | 304 |
| Total installed capacity | 1,100 MW |
| Marine enclosure type | Shoreline Lagoon |
| Approximate length of marine enclosure | 10 km |
| Number of powerhouse caissons | 38 |
| Number of turbine generators per powerhouse | 8 |
| Total length of powerhouse caissons | 1,300 m |
| Annual energy output | 3.7 Terawatt-hours |
| Capacity factor | 38.8% |
| Estimated total cost | \$3.2 billion |

By any measure the proposed Scots Bay Tidal Power Project is large! The installed capacity (1,100 MW) is almost half that of the current installed capacity of NS Power (2,368 MW). The potential energy output is almost 30 percent of that currently delivered by NS Power.

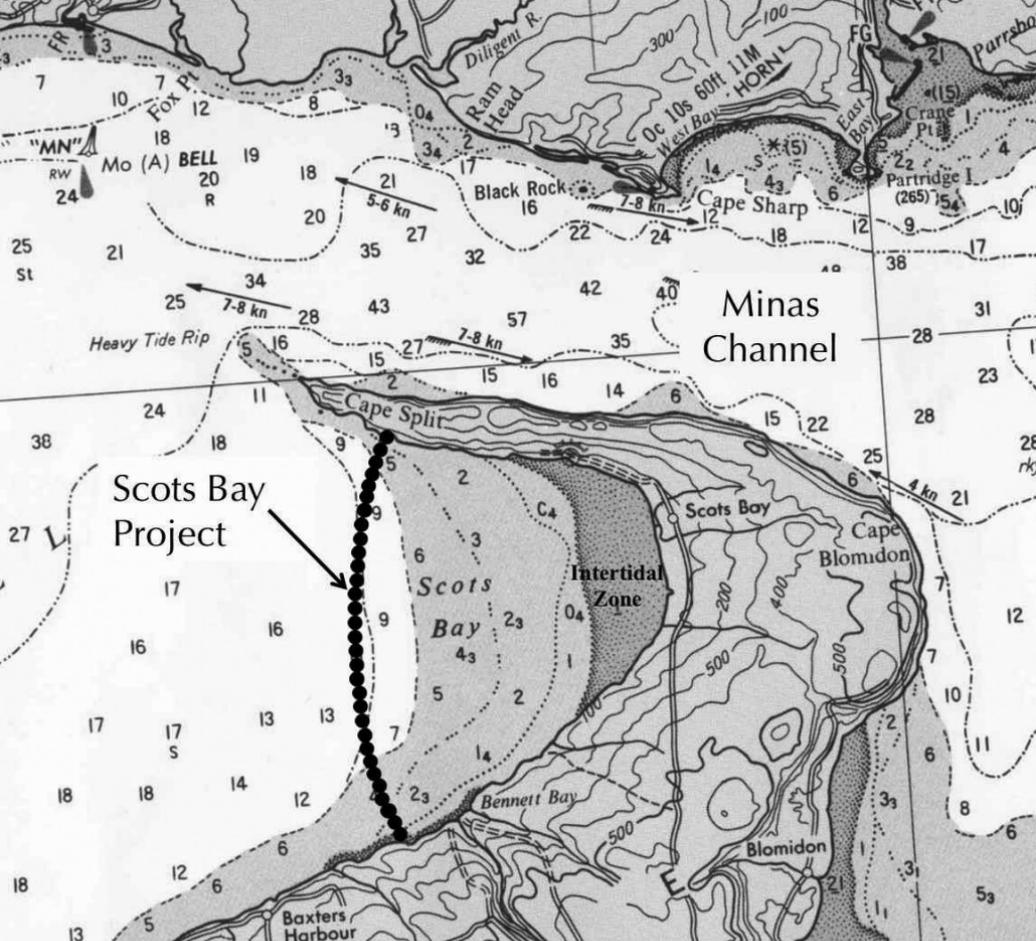


Figure 1. Proposed location of Scots Bay Tidal Power Project (modified from Halcyon Tidal Power website).

A sketch of the proposed marine enclosure and powerhouse caissons is shown in Figure 2.

ECONOMICS

The proposed construction methods for the marine enclosure are expected to reduce costs and construction time each by up to 50 percent compared to “standard” methods (caisson, embankment, “construction in the dry”). Briefly, construction would consist of a pile-supported enclosure using large-diameter piling technology and

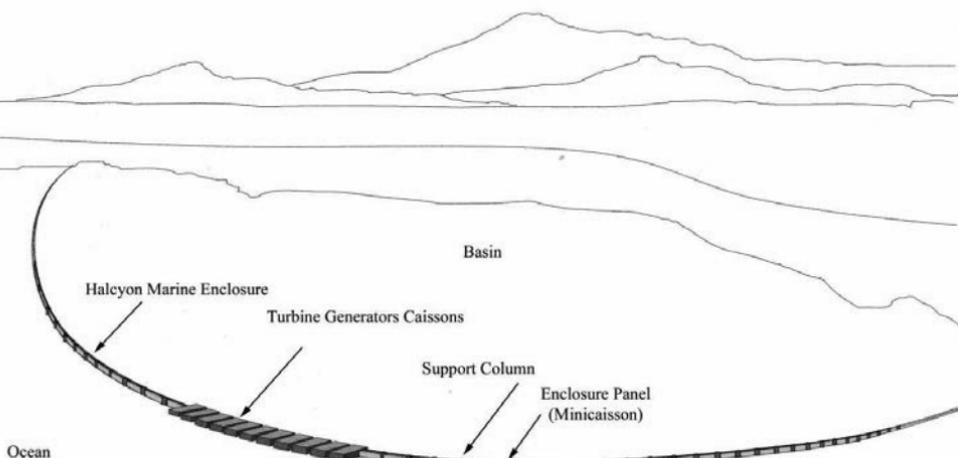


Figure 2. Proposed lagoon marine enclosure and turbine generators at Scots Bay (conceptual – from Halcyon Tidal Power website).

“minicaisson” modules, about 15 m long and 3 to 4 m wide, made of pre-stressed reinforced concrete. The modules would be constructed off-site (probably Halifax) and installed between support columns sunk into pre-drilled sockets in the ocean floor. The larger turbine generator caissons would be constructed in a dry-dock and floated into position.

The lifespan of this construction is expected to be 80–120 years, with a one-time refurbishment of the generators required after 45–60 years of operation. Halcyon estimates that during the first 20–25 years of operation, while debt is being retired, costs of electrical generation would be comparable to costs for electricity generated from most fossil fuels, only the most-efficient natural gas generators being less costly. After debt has been retired (for up to 95 years) costs could drop by about 50 percent, since the only costs would be operation and maintenance.

Halcyon indicates that its tidal power projects will be considerably more economical than other “emission-free” forms of electrical generation, and, as suggested above, COMFIT (subsidized by NSP) power rates are not required for their operations to be economical.

Like all hydroelectric power generation involving barriers, generation depends on the *head* created by the differences in water level on the two sides of the barrier, driving water through the turbines to generate electricity. With tidal barriers there is the potential to generate power on both the ebb and flow of the tide. Some tidal power plant designs generate only on the ebb (e.g., Annapolis Royal), some only on the flow, and some (using modern bulb turbines) during both cycles. The Scots Bay turbines will generate electricity during both ebb and flow. However, all of these designs affect intertidal zones within the enclosure. Within the enclosure, high tides are lower and low tides are higher than they would be without the barrier; therefore, intertidal habitat is reduced. To eliminate the loss of intertidal habitat, Halcyon proposes to use the generators as pumps during the slack tide periods to raise the water within the enclosure to “normal” (no barrier) levels at high tide and at low tide pump water from the enclosure into the ocean to obtain “normal” low-tide levels. Interestingly, although this process draws electricity from the grid during the pumping phase, a net increase in power output is achieved by using the pumping process.

Halcyon has applied for a patent (pending) on this process called the “free flow cycle.”

While the free flow cycle will mimic the natural tidal ranges, within the enclosure high and low tides will be delayed by about one hour.

Halcyon states that, using the free flow cycle, “no net sedimentation is projected.” This claim is made on the basis that total in and out flows of the lagoon will be the same as before the enclosure is established and that powerhouses will be distributed so that “inflow closely follows the natural flow pattern.” (These claims were questioned by a sedimentologist who attended the February 4 public meeting.)

To reduce fish kill, rather than using a few large turbines, Halcyon proposes using many (304) small turbines with fewer blades (3 rather than 4 or 5) rotating at slower speeds (92 rpm); hence there will be a lower pressure gradient for fish with swim bladders and a lower prob-

ability of fish contacting the blades. Turbine runner edges will be rounded to lessen damage to fish coming in contact with them. Halcyon has also suggested that screens could be added to the turbines to prevent larger fish and marine mammals from passing through the turbines. Entry and exit of the lagoon by fish and marine mammals will be possible through three “portals”: the turbines, the sluice gates, and over the top of the enclosure. About 20 percent of tides (spring tides) will be higher than the enclosure.

Entry and exit to the lagoon by boats will be through a lock.

HALCYON ENCLOSURE

The projected cost advantages of the Halcyon enclosure construction make it possible to consider constructing economic tidal power projects in areas (like Scots Bay) other than estuaries. Since estuaries are biologically very productive and diverse and a very important component of the marine ecosystem, avoiding such areas with industrial power development would be environmentally positive.

Since the Halcyon enclosure minicaissons are proposed to be only 3 to 4 metres wide, a fraction of the width of conventional enclosures, direct impact on the ocean floor by the Scots Bay project will amount to about 20 acres.

Removal of the enclosure after it is decommissioned would require that the pilings be cut at the sea floor level and that the modular caissons be removed in a similar manner to which they were installed.

THOUGHTS

I have attempted to summarize some of the information Halcyon Tidal Power has put forward regarding their proposed Scots Bay Tidal Power Project. It is apparent that Halcyon has attempted to address some serious environmental problems associated with tidal power development. While elements of their proposed development plan have been used successfully in the construction of offshore drilling platforms, others have been tested only in models created by

Halcyon and its partners. A test project incorporating these designs has yet to be constructed. The much smaller Pennamaquan project in Maine, if it proceeds, would provide valuable insights into the true effectiveness and environmental impacts of the proposed development at Scots Bay.

Maritimes Butterfly Atlas

This is a brief e-mail report from John Klymko, director of the atlas. Note that this is the final season of the five-year project.

Hello everyone,

I hope you're all able to get out and see some butterflies these days. There's a lot of species flying now and in the coming weeks, so take advantage of good weather when you can.

The Maritimes Butterfly Atlas has an updated website. The new site is at <http://accdc.com/mba/index-mba.html> (there's also a link to the new site at the old site). On the new site you'll find the 2013 tabular results (<http://accdc.com/mba/en/result-tables.html>). There's also a survey effort map. It shows the level of coverage for each square, as measured by the number of species that have been recorded there during the atlas period. Check that out at <http://accdc.com/mba/en/survey-effort.html>.

Good butterflying,
John Klymko

Spring Weather 2013, Eastern Annapolis Valley

Larry Bogan, Cambridge Station

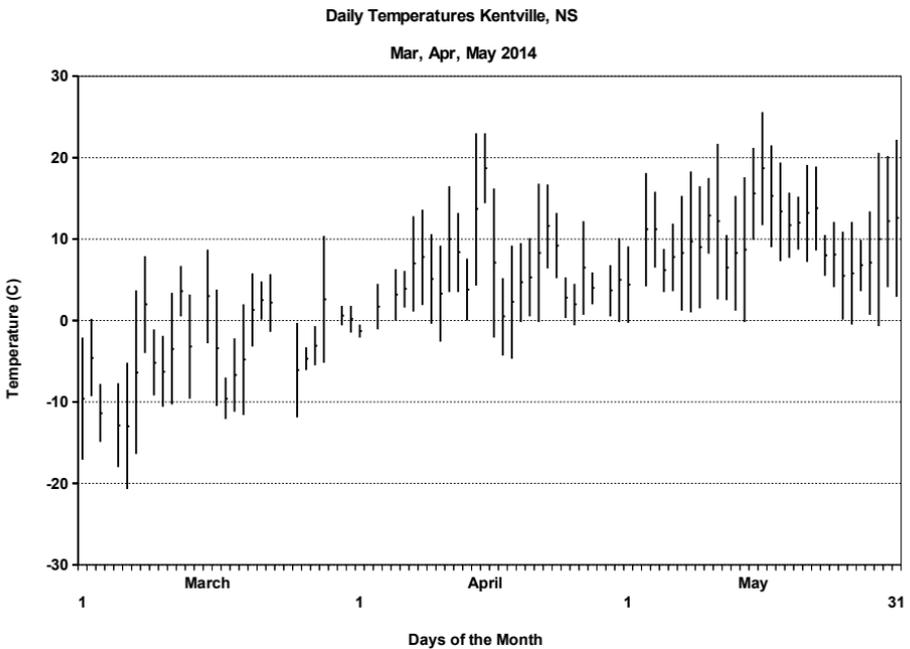
ARE we heading into summer finally? That is what most people ask after a long winter and cool spring. We have just finished May, and it was a cool month with a very late frost on the 26th and 29th. Although Kentville recorded a temperature minimum of only -0.5°C those days, I had -3.0°C at my weather station in Brooklyn Corner.

| | Temperature | | | Precipitation |
|-------------------|-------------------------------|-------------------------------|--------------------------------|---------------|
| | Max ($^{\circ}\text{C}$) | Min ($^{\circ}\text{C}$) | Mean ($^{\circ}\text{C}$) | (mm) |
| March 2014 | 1.2 | -8.6 | -3.7 | 149.0 |
| (30 yr. average) | (3.4) | (-5.3) | (-1.0) | (110.0) |
| April 2014 | 10.7 | 0.9 | 5.9 | 83.0 |
| (30 yr. average) | (9.9) | (0.6) | (5.3) | (93.0) |
| May 2014 | 16.2 | 4.2 | 10.2 | 30.0 |
| (30 yr. average) | (16.4) | (5.6) | (11.0) | (102.0) |
| Season | 9.5 | -1.1 | 4.2 | 262.0 |
| (30 yr. average) | (10.0) | (0.4) | (5.2) | (305.0) |

Source: Environment Canada data for Kentville, NS (<http://weatheroffice.gc.ca>) and Canadian Climate Normals and Averages (Kentville).

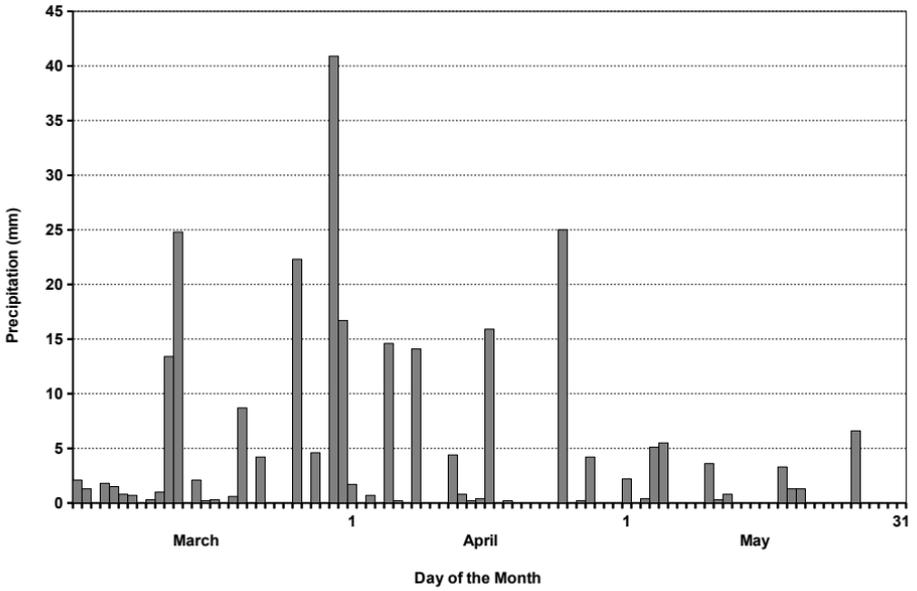
TEMPERATURES

The monthly summary shows the data from the Kentville agricultural research station. The 30-year average values are for the period 1981–2010. Both March and May were below normal in mean temperatures, with March being a large 2.7°C below normal. May's average maximum temperature was about normal, but the lows overnight were lower by 1.4°C. This is a result of many dry, clear nights. Even though April was 0.6°C above normal, the whole season was 1°C below normal. The cool spring caused late leafing-out of trees. As of this writing on the first of June, the oaks, ashes, and my Black Walnut leaves are still young and not fully filled out.



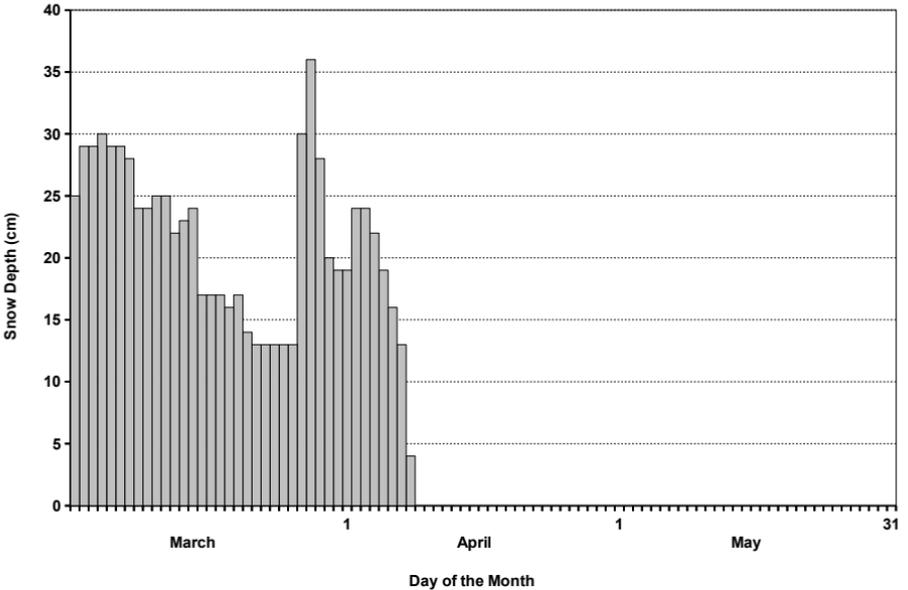
Daily Precipitation, Kentville, NS

Mar, Apr, May 2014



Depth of Snow on the Ground, Kentville, NS

March, April, May 2014



We had snow on the ground all through March and into April. The 30 cm at the beginning of March was slowly melting when on the last week of the month more snow fell, and we were back up to 30 cm again. Fortunately, the temperatures warmed and winds blew in early April and it all melted away. We also received a bit more rain in that period, and there were high waters in the rivers of the Valley. Snow and rain in March was well above average (by 35%), April was a bit below normal, but May was very dry and received only 30 percent of expected rainfall. As a result we are now in a moisture deficit, with the spring receiving only 86 percent of the average precipitation.

Usually this time of the year, we have an abundance of dog ticks on our property, but this spring we have not seen one. I wonder if the winter weather was in any way responsible.

ASTRONOMY

What's in the Sky?

by Roy Bishop

HIGHLIGHTS FOR JULY THROUGH OCTOBER OF 2014

July 3: Earth farthest from Sun (aphelion)

July 12: Full Moon

July 13–16: Large tides

July 15 (approximately): Sandpipers begin arriving in Minas Basin

July 26: New Moon

August 10: Full Moon (largest of 2014) rises at 20:11

August 11–14: Large tides

August 12: Perseid meteor shower (moonlight interferes)
August 17: A spectacle in the dawn sky tomorrow (see below)
August 23: Public sky viewing at Nova East (see below)
August 25: New Moon

September 8: Full Moon (Harvest Moon, see below)
September 9–13: Large tides
September 22: Equinox, autumn begins at 23:30 ADT
September 24: New Moon

October 8: Full Moon (eclipse, see below)
October 8–10: Large tides
October 23: New Moon

AN AUGUST DAWN SPECTACLE

If the sky is clear in the early hours of Monday, August 18, and you have a very low eastern horizon, locate your binoculars the evening before, go to bed early, and plan to be awake by 4:40 a.m. A few minutes later an unusual sight will appear above the ENE horizon: Venus and Jupiter, side-by-side, barely a quarter of a degree apart. Venus is the brighter, on the left. Also, the star cluster M44 (Praesepe or Beehive) lies immediately left of the two planets. The only negative aspect of the spectacle (other than occurring before dawn!) is that morning twilight will have begun. Thus the best view will be before the sky gets too bright, within the first half hour after the two bright planets come into view. Although Venus and Jupiter appear side-by-side that morning, Jupiter will be almost four times farther away than Venus. The two planets will be there in the morning sky for several days both before and after August 18, but only on that one morning will they be so close together. Expect UFO reports in the news media that morning!

How uncommon is such a sight? Given the chances of cloudy weather, you might see Venus and Jupiter so close together about

once or twice a decade, provided you know beforehand when and where to look.

NOVA EAST

Nova East is Atlantic Canada's largest annual star party. Hosted by the Halifax Centre of the Royal Astronomical Society of Canada (RASC) and by Minas Astronomy Group (MAG) of the Wolfville area, Nova East is held in late summer about the time of the new Moon at Smileys Provincial Park near Windsor. This year Nova East occurs on the weekend of August 22, 23. The public is invited to attend talks and view the Sun and the nighttime sky through telescopes on Saturday. If you wish to attend all events, check the website <http://halifax.rasc.ca/ne/> for more information, registration, and reserving a campsite at the park. Families with children are especially welcome.

THE PERSISTENT SEPTEMBER MOON

The cool, pleasant evenings during the second week of September this year will be decorated with the Harvest Moon in the eastern sky. At our latitude, the full Moon that occurs nearest in time to the autumn equinox rises only a little later on several successive evenings. Consequently the light of the full, or nearly full, Moon is available on several early evenings to aid farmers in their harvest. With the autumn equinox occurring on September 22 or 23, it is possible for the full Moon nearest the equinox, the Harvest Moon, to occur in early October. That last happened in 2009, and will occur again in 2017, and again in 2020.

THE VANISHING OCTOBER MOON

The full Moon will light the night of October 7. However, as dawn twilight begins the next morning, October 8, the bright Moon, lying low in the western sky, will fade as it begins to enter Earth's shadow. The upper left side of the Moon will vanish first. As the dawn sky

brightens, and the Moon slips further into Earth's shadow, more and more of the Moon will disappear from view. Moonset occurs at 07:25, but that event will not be visible because by then the Moon will be entirely within Earth's dark umbral shadow. On the opposite side of the sky, in the east, the Sun will be rising. From Nova Scotia, the bright morning sky will hide the setting, totally-eclipsed Moon. From British Columbia, the dim, red, eclipsed Moon, still high in a dark sky, will be a beautiful sight.



RICK WHITMAN

American Golden Plover

BLOMIDON NATURALISTS SOCIETY

2014 Membership Fees & Order Form

Members 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.

(Neither BNS nor NNS membership is tax deductible.)

NAME

ADDRESS

POSTAL CODE

E-MAIL

TEL

In signing this membership application, I/we hereby waive & release the Blomidon Naturalists Society, its executive committee and members, from all claims for injury and/or damage suffered at any function or field trip organized by the Blomidon Naturalists Society.

SIGNATURE

DATE

| No. | Description | Price | Total |
|-------|--|---------|----------|
| _____ | Individual/ Family Membership | \$20.00 | \$ _____ |
| _____ | Junior (under 16 years) Membership | \$1.00 | \$ _____ |
| _____ | Nature Nova Scotia Membership | \$5.00 | \$ _____ |
| _____ | 2014 BNS Calendar | \$15.00 | \$ _____ |
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| _____ | Blomidon Naturalist crest | \$5.00 | \$ _____ |
| _____ | Blomidon Naturalist hat | \$15.00 | \$ _____ |
| _____ | BNS Calendar Photos (Screensaver) | \$10.00 | \$ _____ |
| | Postage: (calendar \$2) (parcel \$6) | | \$ _____ |
| | Tax-deductible Donation | | \$ _____ |
| | (Registration number: 118811686RR0001) | | |

TOTAL \$ _____

Address cheques or money orders to Blomidon Naturalists Society for membership and other purchases to: **Ed Sulis, 107 Canaan Avenue, Kentville, NS B4N 2A7.** Due date is January 1 of current year.



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 |