

Blomidon Naturalists Society



FALL 2013 NEWSLETTER

Volume 40 · Number 3

❖ 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

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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:

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WOLFVILLE, NS B4P 2C5
jtimpa@ns.sympatico.ca

Digital photographs should be submitted to
doug@fundymud.com

**Submission deadline for Fall:
November 30, 2013**

Out and About

by Jean Timpa, editor

Now that autumn is almost here as I write this on September 16, and the days and nights are getting cooler, many of us start dreading the cost, and often the inefficiency, of our heating systems. For instance, I burn oil and wood, both highly polluting; but at least it is not coal, and the wood is great back-up when the power goes out.

Does anyone remember when our energy sources were our own business, both light and heat? Various government levels have wiggled their ways into our lives and now dictate what we may use, and its price. They slap a green tag on anything they please, such as biomass and hydro. Do we really have the wood waste to fuel the biomass burners, what with the closing of our large paper mills? Or will we have to sacrifice more forest land, which could be used to purify our air and prevent erosion?

As for hydroelectricity from Labrador, we can only guess what the cost per kilowatt hour will be as the wrangling and estimates fly back and forth – but no useful figures emerge. That is just the beginning of the negative impact, as hydro is destructive to the river itself. I grew up beside the East Branch of the Bear River in Annapolis County, which now has three dams on it. The salmon fishing was spectacular, but immediately died, as fish ladders were not installed – not that they would have helped much. The Eastern Brook Trout fishing was some of the best in North America, but the rotting trees left in the artificial impoundments robbed the fish of much-needed oxygen and seriously acidified the river, and the remaining excuse of a river was too warm and shallow for many trout to survive. Anyone for Eel, Mud Puppies, and Yellow Perch instead?

The dams have also adversely affected the way of life for the

Mi'kmaq on the East Branch of the Bear River, and the dam will be a similar curse to the native people around Muskrat Falls, who are fighting for their land rights. A billion and a half dollars just to build the cable link between Newfoundland and Cape Breton, plus all the other money wasted on “studies this and studies that” could be well spent setting up new industries in Nova Scotia to build, refurbish, and maintain existing buildings and new ones with the latest in insulation and solar and geothermal heat, freeing us from the archaic and inefficient electrical power lines. Heaven forbid that governmental bodies should do something really green for a change instead of trying to delude the masses. We need a very honest, urgent about-face on energy issues!

NOTICE

2014 BNS Natural History Calendar

THIS is the 17th year of publication for this unique calendar, and as always it will contain exceptional pictures by local photographers, daily tide times, current and historical events, and lots of fascinating natural history.

Calendars will be available at the following retail locations:

- in Wolfville: Herbin Jewellers, EOS Fine Foods, Blomidon Inn, KC Irving Environmental Science Centre
- in Greenwich: Hennigar's Farm Market, Elderkin's Farm Market, Noggins Corner Farm
- in Port Williams: Shur Gain Feeds & Needs
- in Hants Border: R&G Family Restaurant

These fine establishments sell the calendar for our benefit at no profit for themselves, and we thank them for that and encourage you to patronize them.

Calendars will also be available at BNS monthly meetings, our booth at the Acadia Christmas Craft Fair, and from Ed Sulis (edmasulis@ns.sympatico.ca).

The calendar is our biggest fund raiser of the year; profits go to support our Green Dragon Young Naturalists Program. Don't forget – calendars make an excellent Christmas gift, especially for those from away.

CLUB NOTES

Board of Directors Report

By John Owen, BNS president

YOUR board had a regular meeting on Aug 15, 2013. The following is a summary.

BNS BURSARY – \$2,000 will be awarded each year to a student entering third year in any of the natural sciences, has financial need, and is involved in the community. BNS will have the opportunity to meet the recipient and take part in the presentation. Acadia is presently reviewing candidates.

BNS 40TH ANNIVERSARY – In 2014 BNS will celebrate its 40th anniversary – specifically March 24, the date of its inaugural meeting. Discussion on how to best celebrate the event included newspaper articles over the year highlighting the society, a sale of 40th anniversary crests and hats, a write-up of the history of the society, and a banquet. As plans evolve, your board will keep you informed.

NEXT AGM – The next annual general meeting will be at the November monthly meeting. Nominating committee members are Jean Gibson Collins and Rick Whitman. The board feels that we require younger board members to assure continued interest in BNS.

FINANCE, MEMBERSHIP, GREEN DRAGON PROGRAM – Membership is up by 5 percent, with several memberships being processed by e-mail. Honorary memberships are at 14. Bank account is \$10,500, and investment account is \$66,000. Revenue from calendar sales is down by \$2,000. We normally receive \$9,000. Grants to Green Dragon are down by \$5,000, so our revenue is down by \$7,000. Green Dragon program will be a major drain on our resources, with transportation remaining the major cost. Although our finances have taken a hit, we are not in financial trouble. BNS received a \$50 donation to Green Dragons from Nature Nova Scotia as a thank-you for the use of BNS AV equipment.

BNS SHOREBIRDS STEWARDSHIP COMMITTEE – The Minas Basin Shorebird Day held on July 27, 2013, was successful. The day began at the Wolfville Harbour waterfront park, then moved to Evangeline Beach. The weather and shorebirds cooperated, with lots of birds present for the 40 people that attended the event. The Ecology Action Centre was also represented.

The next BNS board meeting is scheduled Thursday, November 7, 2013.

CLUB NOTES

Minas Basin Stewardship Committee

by Rick Whitman

THIS committee is active again this year. We continue with shorebird population monitoring, casual public outreach at Evangeline Beach, and, when possible, photography/reporting of birds marked by researchers. The Semipalmated Sandpipers reported to date were banded and “flagged” on January 23, 2012, at Maranhao, Brazil; on April 26, 2013, in Suriname; and on August 13, 2013, at



RICK WHITMAN

Semipalmated Sandpiper banded and flagged on January 23, 2011, in French Guiana and photographed on July 24, 2012, at East Point, North Grand Pre. Note XCY flag on right leg.

Avonport. We have expanded our population monitoring a bit to Kingsport-Medford and Summerville-Cheverie. On different dates, Richard Stern and I both found more Black-bellied Plovers passing the high tide at Summerville than anywhere else. About 19 species of shorebirds can be seen in a typical year within this Important Bird Area (IBA). Some, of course, are very difficult to find.

We have been more active with formal events. On July 17, I gave a photo presentation on shorebirds to the North Grand Pre Community Association, assisted by committee member and association chair Roy Bishop. I showed 14 species and emphasized that every photo was taken locally. I also showed nine banded and flagged Semipalmated Sandpipers and discussed what is known about the travels of each individual.

I had agreed earlier to lead a BNS field trip on July 27, and we decided to build a significant public outreach event around that, at Evangeline Beach. About 40 people attended the combined event, as reported by Jim Wolford in his report in this issue. All committee members plus Bernard Forsythe were present and helped host this event.

Green Dragon 2013 Summer Camp

by Harold Forsyth

THIS year's young naturalist summer camp proved once again to be very successful, with 140 children enjoying over 500 kid days in nature. A special thank-you goes out to our naturalist leaders, Naomi and Sarah, for doing a wonderful job organizing and implementing the program. Thank you also to our sponsors – TD Friends of the Environment, Eastern Kings Memorial Health Foundation, Kings County Municipal Council, Canada Summer Jobs, Michelin – and you, the members of the Blomidon Naturalists Society.

REPORT

This summer, we had the privilege again of organizing and running the Green Dragon Nature Camp. This job truly is an experience like no other –working outdoors in the unique landscape of the Annapolis Valley with a different group of interested, eager children every week. Our camp consisted of our going to four different locations: Kentville Ravine, Noggins Corner Farm, the KC Irving Environmental Science Centre and Harriet Irving Botanical Gardens, and Blomidon Provincial Park. We began each day with an introduction of the site and said our pledge, to “protect and respect nature and be a good explorer.”

For six weeks in July and August, we took six different summer camps from around the Valley on these adventures: New Minas Children's Centre, Wolfville Recreation, Kentville Recreation, Aldershot Recreation, Apple Tree Landing Daycare, and our newest addition, Gaspereau Recreation.

Noggins Corner Farm provided us with a scenic walk through

the woodland trails. We explored the woods and its history with the children, learning more about the wildlife that lives there. The kids were fascinated by the animals and insects we managed to find in the woods, and how our landscape has been formed over the years. We spent our afternoons enjoying the play structures on the farm and visiting the calves and mini-horses on site. Using Kings Transit, the camps were able to easily get to and from the site.

Kentville Ravine was another beautiful site we were able to explore with the help of Kings Transit. Our morning consisted of plummeting into the wonders of the ravine hidden so close to town. The kids enjoyed spotting different wild creatures and listening to the cries of the newly born eagles. On the way back, after taking our well-deserved break at the waterfall, the kids loved splashing in the stream alongside the trail. We spent the afternoon catching and learning about different insects in the field by the picnic area. We also had the pleasure of introducing the Blair House Museum to the children. This was a wonderful experience that got them interested in the history of a prominent agricultural resource here in the Annapolis Valley.

At the KC Irving Centre, we split into three groups and rotated stations throughout the day. One was a tour with the gardeners of the Centre to learn about the native plants of the Acadian Forest region and the different habitats within it. Another station was the geology floor in Huggins Science Hall, where the kids could see firsthand some of the oldest rocks in the world, a meteorite, and many stunning rocks from Nova Scotia. We were helped out tremendously by the professors as they captivated the children's attention and formed a new interest in geology. At the third station, the kids explored the biology teaching museum at Acadia University. This gave the children hands-on experience with animals they might not normally encounter, as well as the process of taxidermy.

At Blomidon Provincial Park we started at the picnic grounds at the top of the park. Along the way down we looked at different tree formations and the difference between deciduous and coniferous trees. At the end of the trail we would enjoy eating lunch on the grass

with a view of the ocean. The rest of the afternoon was on the beach, where the kids waded in the ocean searching for shells and crabs or enjoyed the waterfall's chilly stream. Here, they loved building dams and investigating the brook's course.

Overall, it has been an amazing summer, and we are grateful for the experience. It was a great opportunity for the kids to take a step back and see the world they live in through new eyes. We know that this opportunity is not unnoticed by the parents, as we hear comments about how early the children go to bed after our trips. One of the most rewarding aspects of the job is hearing the kids' excitement as they yell, "This is the best day ever!" This whole experience wouldn't be possible without support and commitment from the Blomidon Naturalists Society as well as the bus companies, staff of Acadia University, Blair House Museum, and Noggins Corner Farm. We hope the children have gained a higher appreciation for their surroundings and will continue to explore, protect, and respect nature.

Thank you,

Naomi Crisp and Sara Boyd

CLUB NOTES

Upcoming Events

MEETINGS

Unless otherwise noted, all meetings are held at 7:30 p.m., usually on the third Monday of each month (note exception for December), 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.

Monday, October 21, 2013 – *The Reality of Invasives*. This is the first

– and a momentous – joint meeting between the Blomidon Naturalists Society and the Valley Gardeners Club. George Alliston (Biologist, PhD Cornell, extensive experience in invasive plant research), Graham Daborn (Research Associate, Acadia Centre for Estuarine Research), and Mark Elderkin (Species at Risk Biologist, Nova Scotia Department of Natural Resources) will engage in a panel discussion on invasive species in Nova Scotia (with an emphasis on plants). The event will comprise wide-ranging discussion on many aspects of the problem and promises to provide a fascinating evening full of new information. Note: this event takes place in BAC 244.

Monday, November 18, 2013 – *Acoustic Monitoring of Nocturnal Migrant Songbirds*, by John Kearney. This talk will cover acoustic migration monitoring, an analysis of its advantages and disadvantages relative to other methods of migration study, results obtained so far, and some suggestions anyone can use to set up a backyard microphone to start listening to migration.

John Kearney is an environmental anthropologist with 40 years of experience working in diverse community, academic, and industry settings worldwide. His publications include reports, journal articles, book chapters, and a book in the field of natural resource management. He has been a leader in implementing community-based management in Canada.

John F. Kearney & Associates specializes in the environmental assessment of the impact of wind energy facilities on birds in Nova Scotia. The company has deployed acoustic monitoring to study the vast numbers of birds passing unseen over wind farms during their nocturnal migrations in the spring and autumn.

Monday, December 9, 2013 – *Rocks from the Sky: Small, Large – Good, Bad*, by Roy Bishop. Earth itself is composed of rocks from the sky. Millions of such bodies are still in the sky, several tonnes of which land on Earth every day. Occasionally, one of them is large enough to make headlines, such as the Chelyabinsk meteor last February. Large visitors to the inner Solar System that reach naked-eye

visibility, such as Comet PanSTARRS last spring, also make the news every few years. The geologic record makes it virtually certain that some of the large objects still out there have Earth's name on them. Whether or not we can prevent them from impacting Earth . . . well, it depends.

A native of Wolfville and Professor Emeritus of Physics at Acadia, Roy is a founding member, a past-president, and an honorary life member of the Blomidon Naturalists Society. He is a past-president of the Royal Astronomical Society of Canada. Last year, he was inducted into Nova Scotia's Science Hall of Fame. Following his sojourn on the third planet, Roy intends to visit asteroid 6901, which the International Astronomical Union has named Roybishop.

Monday, January 20, 2014 – TBA

Monday, February 17, 2014 – *Annual Show and Tell Night*. Open to all. Come to view or bring along slides, pictures, specimens, collections, fossils, videos, computer stuff, favourite books and magazines, or anything that might be of interest to fellow naturalists. If you have digital images and would like to submit them in advance, contact James Churchill (681-2374, jamesLchurchill@gmail.com).

FIELD TRIPS & OTHER NATURE EVENTS

Saturday, September 28, 2013 – *Shell Camp Lake Canoe/Kayak Trip*. Leader: Larry Bogan (larry@bogan.ca). This trip begins at Peter Lake and involves a paddle across a marsh into Shell Camp Lake. Paddlers will explore the marshy outlet into Mistake Lake and an interesting, large rock island that used to be a nesting site for Great Black-backed Gulls. The paddle starts in the morning and extends into the afternoon, with lunch at a rest stop on the lake. The group will meet at the parking lot to Avery's Farm Market in South Berwick (on Highway 1) at 8:30 a.m. and drive to the Peter Lake access point 45 minutes away.

Saturday, October 19, 2013 – *Big Trees In Nova Scotia*. Leaders: Ed Sulis (678-4609 or edmasulis@ns.sympatico.ca), with Larry Bogan and Doug Twohig. Enjoy the experience of measuring a big tree in Ed's back yard. The property extends down into the ravine to Mill Brook. A large Red Oak close to the bottom of the ravine will be examined and measured using the criteria outlined on the big tree website. Several years ago the details of this tree were submitted; at that time it was the largest Red Oak, but since then it has been relegated to second place. It is time to check again, as big trees can get bigger. The trip will also include observation of a number of other mature Red Oaks, Eastern Hemlock, White Ash, and lumber-grade beech (without the canker, but not to be touched). The group will also see some woodworking projects resulting from Red Oak boards milled (at Forsyth's in Coldbrook) from a storm-downed stem in 2010 and discuss what should be done with Norway Maple. Meet at Ed's at 1 p.m.: 107 Canaan Ave, Kentville.

Tuesday, October 22, 2013 – *Switch*. The Eco-Kings Action Team presents a free screening of this film on our energy future, focusing on all major energy forms and energy efficiency. This film is being shown in connection with the inaugural conference of the Atlantic Youth Environmental Council. Following the screening, the Eco-Kings Action Team will lead a discussion about the concepts in the film. Location: Al Whittle Theatre, Wolfville. Time: 7 p.m.

Friday, October 25, to Sunday, October 27, 2013 – *Atlantic Youth Environmental Council Conference*. This inaugural conference is hosted by Acadia University, with the theme, "Speak Up: Engaging and Empowering Students in Government." The keynote speaker is Elizabeth May, who will be giving a public lecture in Room 10 of Huggins Science Hall, Acadia University, at 7 p.m. on Saturday, October 26. For more information, see <http://ayecouncil.wordpress.com/conference-2013/>

Saturday, October 26, 2013 – *Little Split Cove and Beach Rockhounding*. Leaders: David Sheppard and Chris Sheppard. Little Split Cove is a virtual storehouse of tumbled agates. This day trip follows the Cape Split trail nearly to Cape Split Meadow. A tangential climb down to the shoreline is not difficult. Chris will take more adventurous and able folks right to the split on the shore, through the Wind Tunnel, and even out past the split. David will remain behind at Little Split Beach with those feeling less adventurous and able. This trek is no more dangerous than any other hike with a small climb (ropes are already attached), or a walk on a boulder-strewn Fundy shore. Meet at the Cape Split trail parking lot at 9 a.m. Rain date is Sunday, October 27.

Saturday, November 2, 2013 – *Blomidon Park Hike*. Join the Chebucto Hiking Club for a moderate 13 km hike at Blomidon Provincial Park. This hike is suitable for all ages and is rated 4C – a good deal of significant hill climbing, and a significant part of the walk takes place on somewhat difficult terrain (rocky, rooted paths). We will meet at the Blomidon Provincial Park lower parking lot at 11 a.m. Take Exit 11 off Hwy 101, follow Route 358 to Canning and Blomidon Park. Dress for weather conditions and wear hiking shoes or boots. Please bring water, snacks, and a lunch. Contact Blain at 405-6365, chebuctohiking@hotmail.com, or visit www.chc.chebucto.org.

Saturday, November 16, 2013 – *Blomidon Park Hike*. Join the Valley Trekkers Volkssport Club and follow forest trails along the bluff to view the Cumberland Shore across the Minas Basin of the Bay of Fundy – 10 and 13 km guided hikes are available. Dress for weather conditions and wear sturdy hiking boots or shoes. Bring sunscreen, snacks, and water. Please note the fee is \$2 for members, free for new walkers. Meet at the lower parking lot, Blomidon Provincial Park at 10 a.m. Contact Bert Currie (765-4051).

Saturday, December 14, 2013 – *Wolfville Christmas Bird Count* – The CBC has been an annual tradition since 1900, now with over 50,000

participants from all across North America, creating a vast pool of data on the status and distribution of early-winter bird populations. The count area is a circle 2.4 km in diameter, where volunteers count all the birds they see on the count day. All levels of birders are invited to participate in the Wolfville count. You may be assigned your own area within the circle or join with others who may be more experienced. To participate, contact the compiler, Alison Bogan (678-0446, alison@bogan.ca) or see her at a BNS meeting before the count. There is no fee for participants, but free-will donations can be made to Birds Studies Canada.

For those with bird feeders in the count area (within 12 km of Hen-nigar's Farm Market) who prefer to count from home, you are invited to keep track of the birds at your feeders for all or any part of the count day and get that information to Jim Wolford (542-9204, jim-wolford@eastlink.ca). Following the count, around 5 p.m., all participants are invited to Richard and Liz Stern's (rbstern@ns.sympatico.ca, 678-1975) for a tally count and chowder/chili supper. The address is 317 Middle Dyke Road, north from the lights at the intersection of Belcher Street and the dyke road from New Minas, just before Chipmans Corner. There is lots of room for parking and everyone is welcome.

Saturday, December 21, 2013 – *46th annual Kingston Christmas Bird Count*. Wayne Neily (765-2455, neilyornis@hotmail.com) will be compiling the count again this year. It is a circle with a 12 km radius centred at the intersection of Main and Bridge Streets in Kingston. All are welcome to participate as field observers or, if you live within the circle, as feeder observers, but you must contact the compiler in advance to be included in the planning. (Note: date preliminary, to be confirmed with participants.)

Saturday, December 21, 2013 – *Winter Solstice Family Frolic*. We invite everyone to welcome the winter season and continue the 5,000-year tradition of celebrating the return of the Sun after the longest night of the year. We will meet around a roaring bonfire at Nog-

gin's Corner Farm and set off for a hike through the centuries-old pine and hemlock forest. We will pass an 18th century Acadian cellar, Poor House graveyard, and a huge Bald Eagle nest. We will look for tracks and signs of wildlife, call for owls in the deep woods, and view the stars from the dykes (weather permitting). We will make our way back to the bonfire for hot apple cider and share a toast to a winter season full of light and good cheer to all. Charlane Bishop (542-2217) and Harold Forsyth (542-5983) will be the leaders. Meet at Noggin's Corner Farm in Greenwich at 6:30 p.m.

Sunday, December 29, 2013 – *West Hants Christmas Bird Count*. Patrick Kelly (472-2322, patrick.kelly@dal.ca) will be compiling the count again this year. All are welcome to participate, but please contact the compiler as soon as possible so that you can be included in the planning. Following the count, around 5 p.m., all participants are invited to a tally count and potluck supper, location to be determined.

Saturday and Sunday, January 25 and 26, 2014 – *Eagle Watch Weekend 1*. The Sheffield Mills Community Hall will host its annual pancake and sausage breakfast with naturalist displays, videos, crafts, and art show. A short drive around the area in the morning will possibly offer a sight of more than 100 Bald Eagles and many hawks. Maps and directions can be obtained at the hall or any time at the information post on Middle Dyke Road. For more information, check the website (www.eaglen.ca) or contact Richard Hennigar at (582-3044, hennigar@xcountry.tv).

Saturday, January 25, 2014 – *Winter on Snowshoes*. Snow transforms the landscape into stories that unfold as we follow tracks of foxes, mice, and other mammals. A Snowshoe Hare hops along and is pounced on by a Great Horned Owl. Without snow to show us the tracks, wing marks, and perhaps a drop of blood, we would not have known the drama took place. Soren Bondrup-Nielsen (582-3971) will lead this hike on snowshoes or skis, and we will explore the proper-

ties of snow (its insulative value, for example). By studying the characteristic imprints made by different organisms we will interpret the various stories that have unfolded. Meet at the Wolfville waterfront at 10 a.m. for a two-hour, non-strenuous hike at a nearby location to be determined by weather and snow conditions.

Saturday and Sunday, February 1 and 2, 2014 – *Eagle Watch Weekend 2*. A repeat at the Sheffield Mills Community Hall.

ENVIRONMENT

Switch (*changing the way we use energy*)

by Janet Whitman, member, Eco-Kings Action Team

THE Eco-Kings Action Team is currently working on several projects. One long-ongoing project is obtaining funding for a rapid transit feasibility study to look at the possibility of a high-quality commuter bus service between the Valley and Metro.

A second project involves completing an application to hire a co-op university student to serve as a sustainability coordinator in Kings County. The concept is that by having a student in this role for the summer, the local councils will realize that it would be worthwhile to hire a full-time regional sustainability coordinator.

A third project is planning for the screening of *Switch*, a film on our energy future that focuses on all major energy forms and energy efficiency. It will be shown at the Al Whittle Theatre at 7 p.m. on October 22, in connection with the inaugural conference of the Atlantic Youth Environmental Council. A public discussion on the topic of energy will follow the film screening.

For more information on the film, see www.switchenergyproject.com. For more information on the conference, see <http://ayecouncil.com>.

wordpress.com/conference-2013/. Elizabeth May's lecture is scheduled for 7 p.m. on Saturday, October 26, in Room 10 of the Huggins Science Centre. The conference theme is Speak Up: Engaging and Empowering Students in Government. The film and the lecture are free and open to the public.

AWARDS

Bernard Forsythe: Outdoorsperson of the Year

The Canadian Wildlife Federation annually presents the Stan Hodgkiss Canadian Outdoorsperson of the Year award to a person outstanding in the field of conservation. The 2013 award went to long-time BNS member Bernard Forsythe. The Blomidon Naturalists Society congratulates Bernard and thanks him for his extensive and ongoing contributions to the field of conservation.

The following is adapted from a BNS letter of support prepared by Rick Whitman as part of the Nova Scotia Nature Trust nomination of Bernard for the award:

BERNARD represents the finest example of the self-taught citizen naturalist. Aside from his family, Bernard's life is virtually dedicated to natural history.

Bernard has been an avid searcher and recorder of bird nests since 1975. To date he has submitted over 3,000 nest record cards to the Maritimes Nest Record Scheme run by the Canadian Wildlife Service. He continues to submit more than 100 cards per year. No other volunteer has reached this level. Bernard's prodigious documentation of his observations has earned the respect of the scientific community.



RICK WHITMAN

Bernard checking one of his duck nestboxes on Black River Lake, May 19, 2011

Bernard has long been fascinated by owls. For at least 30 years, he has maintained some 20 Barred Owl nestboxes throughout Kings County. He maintains nest material; repairs, replaces, and relocates boxes as necessary; and keeps detailed records on nesting activities at each box (including approximate date of first egg, clutch size, and number of young that successfully fledge). He has also banded most of the young owls, an activity not without hazard, which involves climbing trees and defending himself from aggressive females. Bernard's efforts have no doubt contributed to increasing the population of Barred Owls in this area.

Bernard also maintains a number of Saw-whet Owl nestboxes but has never recorded a nesting attempt.

Bernard's second great fascination is orchids. As a self-taught specialist he has had great success finding the smallest and rarest species that occur in Nova Scotia. He has located numerous populations of at-risk and rare species in Nova Scotia. He communicates with local botanists on this work and also informs landowners when forestry or other activity puts a population at risk.

Bernard is a keen birder and takes great pleasure in everything to do with birds. He has his life list, Nova Scotia list, yard list, and winter list. In two recent winters he added a green dimension to his winter list (December–February), restricting the entire effort to where

he can walk from, and return to, his home – a maximum daily walk about 16 km.

Bernard has always been prepared to share his knowledge and enthusiasm with youth groups, community groups, and natural history clubs. He gives talks, leads field trips, and contributes to publications such as the BNS Newsletter. A walk with Bernard will include a mix of bird watching, botany, and forest or bog ecology. His quiet but enthusiastic nature is always an inspiration for others.

CWA website: <http://cwf-fcf.org/en/explore-our-work/funding-awards/awards/2013-stan-hodgkiss-canadian.html>

AWARDS

The Stan Hodgkiss Award

by Bernard Forsythe

YEARS ago as I became interested in birds, I was encouraged to keep records of my findings by several like-minded people. My interests spread to other natural history fields. Now I record all the bird nests I locate plus many orchid finds, etc. Previous years' notes are a great help when revisiting sites to record any changes. Many of these records are now used in several research studies by others.

In late April 2013, we were visited by Mayor Bob Stead with totally unexpected news. I was to be given the 2013 Stan Hodgkiss Canadian Outdoorsperson of the Year award by the Canadian Wildlife Federation June 8 in Victoria, British Columbia, all expenses paid. This was the first time Sandra and I had been west of Ontario. Flying over the snow-covered Rocky Mountains was most impressive. We were put up in the Delta Victoria along Victoria Harbour and spent our time sightseeing and birding during our short visit.

Walking into an older area of the city we spotted a large carved

rooster on a lawn that needed investigating. Near the house (now a museum) was a statue of Emily Carr on a pony. We had found the Carr family home. Before leaving Nova Scotia we had been told that a Robert Bateman art gallery had recently opened. By chance on another street we found the Bateman Foundation and entered to admire many of the paintings. Several school projects were on display along the busy harbourfront. One that impressed us was given by a girl with a detailed model of Victoria streets, including sewer and storm drains. With coloured water she showed how the dumping of toxic materials would end up in the harbour.

In Nova Scotia we find White-crowned Sparrows only during migration. They were the most plentiful songbird in Victoria. Many adults, some with newly fledged young, plus singing males were on all sides wherever we went. A very dark reddish sparrow was puzzling until it sang. It was the dark race of Song Sparrow that breeds along the BC coast. House Finches were also common. Most warbler species breed in eastern North America, so I was pleased to find at least one, a Yellow Warbler, in Victoria. An immature Bonaparte's Gull was a good find along with Barn Swallows at several sites.

Of course my birding object was finding lifers. This was not a problem, as even the common birds differ from many of their related species back home. Glaucous-winged Gulls were the most numerous gull. Large, with dark eyes, they look similar to the smaller Iceland Gulls we see in Nova Scotia in winter. A couple of also-large but darker-backed Western Gulls were located. A Bewick's Wren often popped up singing around the hotel gardens along with a family of colourful Chestnut-backed Chickadees. Scanning through groups of Barn Swallows, I was rewarded with finding a couple of Violet-green Swallows. Although field guides list Northwestern Crows as a species, some consider it to be a race of the American Crow. They were conspicuous, very tame, and fun to watch giving their hoarse croaks, quite different from the caw of our crow. Six of the twenty-three bird species sighted during our busy short stay proved to be lifers.

Ian Hanomansing of CBC News was master of ceremonies at the awards banquet. I was asked to give a short summary of the work I

do with Barred Owls, in which I included the feeding of our backyard owl family. Ian's response was it must be interesting to look through our deep freezer. One award recipient, Dr. David Bird, proposed that the Gray Jay should become Canada's national bird and its name changed back to Canada Jay. It is found in all areas across Canada and nowhere else except in a small area of the US. Another highlight from the banquet was the account Olympic gold medalist Adam Kreek and his four-man team gave of their trip rowing across the Atlantic Ocean from Europe.

We admired wildflowers, trees, and shrubs. It was obvious that many were different species from similar plants we are familiar with at home. Back at the Victoria airport, a pair of Northwestern Crows were giving an entertaining show mobbing a pair of Red-tailed Hawks. Peter Kent, at that time Minister of the Environment, and I chatted about the relationship between crows and birds of prey. I also gave my vote for Gray Jay as our national bird.

This was the third year in a row that the Stan Hodgkiss award was given to someone from Nova Scotia.

FIELD TRIP

Herbert River Trail

by Patrick Kelly

SATURDAY, JUNE 15 – This annual walk is held jointly with the Nova Scotia Bird Society. While birds are the main focus of the participants, the varied terrain usually brings lots of other interesting tidbits to enjoy. A dozen seems to be the typical number of people that show up for this field trip, which works well with the width of the trail. We had 34 bird species, down slightly from the 38 of the past two years. Despite that, we had the first Black-throated Blue Warbler

that I recall from past trips. There is usually a Common Merganser on the river, and that was the case again this year. A Ruby-throated Hummingbird, perched on a dead branch, was nicely placed. Several Cedar Waxwings lingered in the area, affording great views. We had four species of flycatchers: the Alder and Least, Eastern Phoebe, and Eastern Wood-pewee. A Veery was heard calling. And a Swamp Sparrow was heard by many but seen by few.

At the riverside, we saw a few rare plants. Feverwort is seen here most years; it is rare in that it is fairly specific in its preferred habitat, as is Jack-in-the-pulpit, which we also noted. Bernard Forsythe identified two clumps of a plant that we had not seen on past trips as One-flowered Cancer-root. Unlike most parasitic plants, this one has stems with small, normal-looking flowers. On the way back out, a number of us were able to see a large, algae-covered Snapping Turtle that was moving slowly in the large pond. It was not visible for long as it went down under some lily pads.

When we returned to the start, one of the participants was going to bicycle back in and follow the rail bed out to Scotch Village Station Road and return via Scotch Village. The rest of us went across the road and visited the old St. James Cemetery to look at the large trees as well as the unusual headstones. It's always nice to be able to extend a field trip into other interests.

WEATHER

Is It Hot Enough for You?

with Rob Raeside

MONDAY, JUNE 17 – Dr. Rob Raeside, from Acadia's Department of Earth and Environmental Science, treated us to a good wallow in weather facts and lore about record-setting weather.

Rob reviewed the extremes of heat, cold, rain, and snow before going on to speculate about recent trends in our weather.

Nova Scotia's hottest day occurred in August 1935 in Antigonish County, when the temperature hit 38.3°C. It seems that no place in the Maritime provinces has ever (since records began) exceeded 40°C; all the Canadian higher-than-40 temperatures come from beyond the St. Lawrence, the highest being from two communities in southern Saskatchewan that reached 45°C in 1937. Of 17 temperatures of 40°C and above, all but 6 occurred in the 1930s – the fringe of the Great Dust Bowl of America.

These temperatures are positively mild compared to the +50°C values reported from Death Valley, California, and the Sahara Desert of Libya. Recent re-analysis of a 58°C temperature from El Azizia, Libya, has now discredited that record, putting it down to a combination of poor location of the weather station, inexperienced soldiers taking the recordings, and a local war going on. Even the 56.7°C record from the most inappropriately named Greenland Ranch, Death Valley, in 1934 seems suspect, based on photographs of the location of the Stevenson Screen. The best highest temperature seems to be 53.9°C, recorded 100 years ago on July 10 at Furnace Creek Ranch, Death Valley, California, and will no doubt be the subject of some media coverage this summer.

At the other end of the scale, the coldest temperatures on record are -41.1°C for Nova Scotia (Upper Stewiacke), -63°C for Canada (and North America) at Snag, Yukon, and -68°C for the Northern Hemisphere (Verkhoyansk and Oymyakon, Siberia). Again, these records come from over half a century (and in some cases over a century) ago. The world record low temperature belongs to a Russian research station in the Australian Antarctic Territory, -89.2°C, in July 1983. Many of the coldest cold temperatures are associated with clear skies, long polar nights, Arctic high pressure systems, and cold downslope air drainage under windless conditions. The extreme Antarctic values are augmented by the high elevation, 3500 m, of the weather station (thereby guaranteeing a further 35 degrees of cooling just from altitude) and its location on the ice cap.

Rob reviewed a truly extreme event, the “Summer in March 2012” heat wave we experienced last year, starting with warming in the Prairies that gradually worked its way east (all the way to western Europe, in the end). It resulted in more than 7,000 high-temperature records and many notable values: Chicago bested its highest March temperature seven times in seven days, several stations in New Brunswick and Nova Scotia exceeded their April record temperatures, and Kejimikujik Park set a maximum overnight low temperature that was higher than the March daily high-temperature record. Perhaps the most extreme temperature was 29.2°C, from Western Head, a place not known for high 20s temperatures even in mid-summer. Of course, all good things come to an end, and the Summer in March 2012 was followed across much of the Northeast by an April frost, which did billion-dollar damage to the fruit crops of New York, Pennsylvania, Ohio, Michigan, and the Niagara Peninsula.

Rob then went on to look at precipitation records, where Greenwood shows a modest 1060 mm annually – paltry compared to the north slopes of Kauai, at 12,000 mm annually (or 33 mm a day every day of the year). For sheer wetness, however, it’s tough to beat Cherrapunjee, Bangladesh, where orographic lifting of the Indian Monsoon has resulted in a record value of 26,470 mm of rain, equivalent to over 250 mm a day every day for the three-month peak of the monsoon season.

Not many places outside of ski resorts report snowfall totals, most preferring to melt it and call it “precipitation.” Where it is measured, though, some impressive totals include the winter of 2000–01 in St. John’s (648 cm), or the phenomenal totals of 30–40 m of snow in some of the western mountains of Washington and BC. Images of trucks and buses parked between towering walls of snow from Newfoundland and Japan left the audience gasping.

Finally, Rob reviewed some recent record-setting events, like the 1 in 100+ year floods from 2002 and 2013 in Germany. The occurrence of two such statistically rare events seems almost impossible, until we recall that the statistics are based on Earth’s former climate. As we move into a warmer world, we expect more extreme events, sim-

ply because there is more energy in the atmosphere. Furthermore, the greater warming of the Arctic results in a lessening of the temperature gradient between the Equator and the Poles, with a resulting weakening of the polar front jet stream. The jet stream has been demonstrating much more meridional behaviour since 2000 – is this a result of this change in the driving forces? The physics and mathematics behind that change have not yet been worked out, but it seems to be too much of a coincidence that the increased loopiness of the jet stream since 2000 has happened only as global (and especially polar) temperatures have begun to warm. More north-south waves in the jet stream, the establishment of “blocking highs” and “cut-off lows,” and even the massive cold waves recorded recently in Europe and Alaska can best be explained by such jet stream behaviour.

Based on what we have seen over the past century or two, and with a warming planet, Rob left us with the forecast to expect “variable conditions” – sure to be plenty to talk about, for we all love to talk about the weather.

UPDATE, SUMMER 2013

The world record temperature still seems to belong to Death Valley, California, from 1913, at 134°F / 56.7°C. The early summer 2013 heat wave reached temperatures of 129.2°F / 54.0°C on 30 June. This is definitely a world record temperature for the month of June, and the only temperatures ever recorded that are higher were all from Death Valley on July 10, 12, and 13, 1913, when readings of 134°F, 130°F, and 131°F were recorded.

In his Wunderground blog, Jeff Masters reports the observations of climatologist Chris Burt:

This 100 year-old record heat wave has many doubters, though, including Mr. Burt, who noted in a 2010 blog post that “The record has been scrutinized perhaps more than any other in the United States. I don’t have much more to add to the debate aside from my belief it is most likely not a valid reading when one looks at all the

evidence. Normally when Death Valley records its hottest temperatures they occur during region-wide heat waves. On July 10, 1913, the next highest temperatures recorded in southern California (aside from Greenland Ranch) were just 119° at Heber and 118° at Mammoth Tank.” If Mr. Burt is correct, then this Sunday’s temperature of 129.2°F in Death Valley was the hottest temperature in recorded history on Earth.” (<http://www.wunderground.com/blog/JeffMasters/archive.html?year=2013&month=07>)

In summary, the highest temperature is still from 1913, if you believe it (remember – the Stevenson Screen was not at the standard height). It’s just so difficult to substantiate these really old temperatures. The 129.2°F / 54.0°C on June 30 is definitely the highest *undisputed* air temperature ever recorded.

FIELD TRIP

Miner’s Marsh

by Richard Stern

SUNDAY, JUNE 9, 2013 – George Forsyth and I led this BNS field trip around the Miner’s Marsh trail in Kentville and then along the rail trail a little way to the east. The group was small, but full of expertise – on many aspects of nature, from trees to birds to insects to fungi – making it a really interesting three hours. From a birder’s point of view, there weren’t many species, but we heard a Sora, a Common Yellowthroat, and a Baltimore Oriole. We saw a number of catbirds, three Eastern Kingbirds, Yellow Warblers and adult crows feeding begging young, and many Red-winged Blackbirds, including a nest. In particular, we saw 50+ swallows, and a further 100+ along the road at Stella’s Pond – mostly Bank, but some Tree, and a few Barn and Cliff.

Two of us went to photograph an active Bald Eagle's nest in New Minas, and we later saw the adults being dive-bombed by Red-wings as they brought food in for the young.

Jim Wolford kept notes on the non-bird species.

One Bullfrog called just a few times, but we didn't see any frogs. At least two Muskrats were seen in the marsh, and Jim saw one in the river near the bridge. Another trail user mentioned seeing a Raccoon with a baby in a cavity with a big opening near the bridge.

Bur-reeds were in bloom, beech trees showed young fruits just past flowering, and George pointed out a native Black Cherry tree in full bloom in a yard along the rail trail. George also tutored us on telling Norway Maple from Sugar Maple from Red Maple and pointed out various other trees and shrubs as we walked. We saw small to good-sized elms, most of them showing leaves that were being devoured by something.

We noted Crown Rust fungus on the leaves and stems of Glossy Buckthorn; its alternate host is oats, and the rust is an important agricultural pest. Unfortunately, buckthorn tolerates the infection well and is not badly affected. We also noted another fungus, *Taphrina* sp., on Chokecherry – it infects and deforms the flowers and fruits.

FIELD TRIP

New Birders' Delight

by Laura Thompson

SUNDAY, JUNE 16 – On a beautiful, bright sunny Father's Day morn, our young family set out to Windsor for the new birders' trip with Patrick Kelly. My husband is the birder, the rest of us birders-in-training. As members of Blomidon Naturalists Society, we

take part in the Christmas Bird Count each year. I am an active backyard birder (e.g., Project Feeder Watch). With a partner so passionate about birds, it was time for me and the kids to learn more about the art and science of birding.

Patrick warmly welcomed the families to this non-intimidating yet highly informative trip. We were quickly taken with the Red-eyed Vireo. We heard its continuous song, which gave us all a chance to spot the two songbirds (although it was trickier to

spot in a leafy treetop against the bright sun). Taking in the pleasant morning breeze, we followed other birds to trees around the Windsor Tourist Bureau: Yellow Warblers, Song Sparrows, Tree Swallows, and Alder Flycatchers. We grew excited to sight, and then recognize, a Red-winged Blackbird. It was great to have Patrick to explain what we were seeing and hearing. Within moments, we had a better understanding of the “sweet, sweet, sweet, I’m so sweet” of the Yellow Warbler. It seems that it is never too early to learn how to identify birds – their colours, plumage, and songs.

Kids and adults alike had their binoculars and checklists. My five-year-old son was particularly proud to have his own Field Checklist. As enthusiastic new birders asked questions and remarked on sightings, my son observed their behaviour attentively and was taken with the American Black Ducks, gathered at the Windsor sewer lagoon, as well as the Red-tailed Hawk we spotted there.

As a novice amateur birder, I continue to be humbled by the knowledge of those around me. I was impressed by the comments and questions of a nine-year-old boy and a teenage boy who appre-



LAURA THOMPSON

Five-year-old Kaniq Allerton writes in his field checklist

ciate birds. For me, it is hopeful and refreshing to see children and youth articulate an interest in birds and their habitat.

While our two-hour trip around the town of Windsor may seem elementary, I was pleased it was. My young family is grateful to have opportunities to get to know the other creatures in our environment with such passionate volunteers.

REVISITING THE PAST

Where Have All the Big Trees Gone?

by Larry Bogan

This article is reprinted, with minor corrections, from the September 1983 issue of the BNS Newsletter (vol. 10 no. 3). It is followed by an update by the same author.

I LOVE trees, especially big, old trees with character. Nova Scotia, being a province of trees with 80 percent of its land forested, should be an excellent place to see these trees. Unfortunately, most of the trees I walk under are smaller, less stately plants. I would like to have a place where there are groves of large, towering, impressive trees.

In my days I remember two places, maybe three, where I experienced the awe and reverence provided by large trees. The first one I'll mention is farthest from home, in New Zealand, where the residents are proud of their trees and make an effort to preserve the old large ones. In touring that country I was pleased to find large trees of several species noted on maps for people to visit. I saw Kauri "pines" up to 46 feet in girth and 160 feet tall, and 1200 years old. I saw large old Totara trees in a virgin forest; a large Matai, and the oldest Puriri (a

hardwood). In New Zealand there are abundant nature reserves set aside to preserve such trees and other native habitats.

The second spot that comes to mind was in the rain forest of Olympic National Park in the state of Washington, where magnificent Douglas Fir grow. But even closer to home I stood beneath a stand of 200-year-old pines in Northwest Connecticut and was awestruck. They towered 150 feet above me, and the forest floor was open and scattered with pine needles and a few shrubs. The quiet magnificence of this site has given the name to the trees of “Cathedral Pines.” They are near Cornwall, Connecticut, and are probably the best stand of trees in New England.

My question is: Why can’t we have something like these sites here in Nova Scotia? What happens to such trees that surely existed in the original Nova Scotia forests? Even though our forests have been cut since 1632 when the Frenchman Nicholas Denys first started fishing and lumbering here, surely something original is left or at least regrown to a respectable size.

How have our forests been treated in the past to give us what we have? Denys only lumbered on the South Shore for three years in a small way, and it wasn’t until the 1760s when the number of mills grew significantly. Earlier in 1728 the British extended the “Broad Arrow” policy of New England to Nova Scotia. All white pines two feet in diameter 12 inches above the ground were reserved for masts for the British Navy and were marked with a broad arrow slash mark. The woods also supplied other naval commodities such as rosin, pitch, tar and planks. Large oaks were eagerly sought for planks and knees. At the time there were many oaks with girths of 9–12 feet and heights to first branches of 20–30 feet. By 1767 the New England planters had 27 lumber mills in peninsular Nova Scotia and were exporting wood to England, the West Indies, and South America.

However, this was still a small industry, and it was not until the Napoleonic Wars that cutting of the forests really accelerated. The traditional source of wood for Britain was the Baltic countries, but Napoleon blockaded these, and Britain turned to North America for its supplies. Although most timber came from the Canadas and New

Brunswick, cutting in Nova Scotia increased significantly. In 1800, only 604 shiploads left Nova Scotia, whereas by 1818, 28,000 shiploads were leaving per year.

Permission to trade with other countries in 1824 further increased use of the forests. Between 1831 and 1838, Nova Scotians built hundreds of large vessels (about 100,000 tons registered gross weight in total), and this continued as a trend until the late 19th century when steam and iron replaced wind and wood on the high seas.

In about one century the forests were changed in character. The cleared land was taken over by faster growing, shorter lived trees such as fir, Red Maple, and aspen. Fire was not carefully controlled and was frequently started by operations in the woods (coal burning locomotives being the prime source). Not until the 1940s did preventive and control measures become commonplace. As a result, some areas in the dry granitic counties of western Nova Scotia have been degraded to heath land and rock barrens. To add to the destruction, white pine blister was imported accidentally in 1900 on nursery stock, and beech bark disease decimated the beeches in 1930.

Methods of harvesting did not promote a strong healthy forest. The biggest and best-shaped trees were taken while the poorly formed, short, weak trees remained to make the next generation of forest stock. The Department of Lands and Forests was enacted in 1926 to start fire control and reforestation of Crown lands. However, only 30% of the forests were in Crown hands because much had been sold or given away in the past. Regulations on forest harvesting were first attempted after World War II when lumbermen in western Nova Scotia became alarmed at the overharvesting. The result was the Small Tree Act that did more harm than good because it required a minimum cutting size. This just led to more high-grading of the forests. Finally, in 1965, the Forest Improvement Act was passed, and only recently (1977) has federal and provincial money been available to encourage private land owners to practise good forest management.

What are our trees like after 200 years of exploitation? The Department of Lands and Forests does a comprehensive forest survey every

BIG TREE CONTEST

NS Forest Technicians Association

| Species | Circumference | Height | Location (County) |
|----------------|---------------|--------|-------------------------------|
| Balsam Fir | 5' 3½" | 73' | Upper Middle River (Victoria) |
| | 4' 7¼" | 58' | Kaizers Meadow (Lunenburg) |
| Red Spruce | 6' 8" | 82' | Kelly Lake, Cal. (Hants) |
| | 8' 4" | | Falmouth Mtn. (Hants) |
| | 6' 7" | 85' | Big Indian Lake (Hants) |
| White Pine | 9' 10" | 78' | Waugh's River (Colchester) |
| | 11' 6" | 116' | Watford (Lunenburg) |
| Red Pine | 6' 8" | 92' | New Minas(Kings) |
| Larch | 4' 6" | 56' | Perry Road (Yarmouth) |
| | 4' 11" | 60' | Lake Annis (Yarmouth) |
| Hemlock | 9' 7" | 74' | Panuke Lake (Hants) |
| | 10' 10" | 76' | Meteghan River (Yarmouth) |
| Yellow Birch | 7' 6" | 74' | Panuke Lake (Hants) |
| | 14' 5" | | MacNutts Island (Yarmouth) |
| Beech | 4' 8" | | Falmouth Mtn. (Hants) |
| | 4' 4" | 55' | Lake Annis (Yarmouth) |
| Elm | 17' 3" | 60–65' | Wanglis' River (Colchester) |
| | 13' 1" | 71' | Kempton Crown (Hants) |
| | 17' 8" | 70' | Brookside (–) |
| White Elm | 8' 9" | 74' | St. Croix (Hants) |
| Sugar Maple | 9' 4" | | Northfield (Queens) |
| | 11' 8" | 60' | Lays Lake Road (–) |
| Red Oak | 14' 9" | 89' | Waugh's River (Colchester) |
| | 15' 7" | | Oakdene School (Digby) |
| Ash (White?) | 9' 9" | | Caledonia (Queens) |
| | 10' 8" | 35' | Cole Harbour (Halifax?) |
| Horse Chestnut | 14' | 55' | Concession (Digby) |

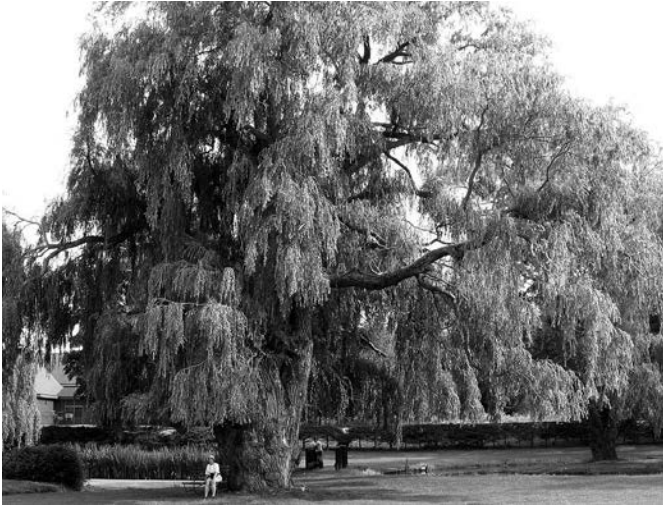
10 years that yields information on forest growth, age range of trees, species, and forest volumes. Unfortunately, the survey will not direct me to groves of stately old trees of various species. And I'm afraid that if they do exist they would be cut down because they are over-mature and are growing too slowly to justify their existence.

Nature reserves are needed to set aside unique and valuable habitats including old trees (maybe mature is a better adjective) beyond the national and provincial parks that we have. But do we know where to find the "best" trees? The American Forestry Association has a list of championship trees with locations. Do we? No, but one has been started by the Nova Scotia Forest Technicians Association, and I have included their results of their big tree contest as of 1980.

I suggest that the Blomidon Naturalists should start a similar list so that we can either add to the one above or at least locate the largest trees in our area. Note that the Red Pine listed above is in New Minas. Also note that not all the species growing in Nova Scotia are in the list. We could add largest trees of other species such as White Spruce, Jack Pine, Black Spruce, Trembling Aspen, White Birch, Blackcherry, Red Maple, Hawthorn, White oak, etc.

My property includes 22 hectares of woods which are typical cut-over forest, but here and there are some trees left because they did not size up to the standards of the time. As a result they are now the largest trees I have. My champion, of course, is a scarred, lopsided old White Pine. I've measured it to be 9'7" in circumference and 70 feet tall. Nothing else I have comes close to its size, and I love to walk around it and look up its trunk to the sky. I have a few Red Pines, the largest of which is almost as fat as the big tree in New Minas but not nearly as tall. It is 6'3" in circumference and 60 feet tall. It is nicely shaped and a handsome tree that I have nicknamed the Party Tree. The only other large trees on my property are some Bigtooth Aspens that look as if they will topple over any day, but it should be fun to measure their sizes.

To get estimates of tree sizes, a tape measure and a 45-degree tri-angle will work. Measure the circumference at breast height with the tape and estimate the height by moving away from the tree until



LARRY BOGAN

Grand Pre willow

the top and bottom of the tree are 45 degrees apart as viewed by you (sight along the triangle to judge this). The height is just then the distance you are from the tree and can be measured with the tape.

So I would like to hear from the membership on the trees we have in our area and hopefully visit them. Please send your large tree candidates to the editor of the Newsletter or to me, Larry Bogan, RR 2, Cambridge Station BOP 1G0.

If you are interested in more details on the history of our forest, the Nova Scotia Department of Lands and Forests have a few useful publications:

“Historical Highlights – N.S. Crown Lands 1603–1972,” *Bulletin 36*
“Lumbering in Nova Scotia 1632–1953,” *Bulletin 26*

BIG TREES UPDATE, 1983–2013

THE forest environment of Nova Scotia has changed significantly over the last 30 years. Forest harvesting has increased every year through 2000 and has only recently started to drop. In 2011 the

volume of wood harvest (3.4 million m³) was back down to the 1983 levels but had been twice that during 1997–2005 (about 6 million m³). The decrease in mature forest cover in the province is obvious everywhere.

Overharvesting and poor forest practices during the intervening years in Nova Scotia have destroyed our Acadian Forests along with what little we had of old-growth forests. It is estimated that less than 0.3 percent of the woods are old growth (compared to about 50 percent in the 18th century). There are two encouraging developments, though: (1) clear-cutting is somewhat more limited now with a new forest strategy, and (2) the Nova Scotia government has implemented an Old Forest Policy as of 2012.

Starting in the mid-1990s, the Nova Scotia government has been creating wilderness areas for preservation of wildlife habitat. To date, 40 such protected areas have been designated, and hopefully this will allow mature forest to grow and produce big old trees.

I still like to find old trees. Since 1983, I have been to British Columbia and stood in awe of the 400+ year-old Douglas Firs towering over me in Cathedral Grove in MacMillan Park on Vancouver Island. Many of those giants were over 2.5 m in diameter and as much as 75 m tall. To think there used to be whole forests of these trees. While there I also saw the barren, scarred hillsides created by clear-cut logging. I also visited the Olympic Peninsula in Washington State to see a championship Western Red Cedar only to experience the sad spectacle of seeing this large tree standing among small trees in woods that had been clear-cut a few years earlier.

Mankind is not the only threat to big trees. In 1989 that grove of majestic White Pine in Connecticut was hit by several tornadoes, and the trees were devastated and only remnants are left. This is what happens when tall trees are isolated without the protection of the surrounding mature forest.

The Nova Scotia Forest Technicians have continued to look for big trees for their big tree contest and have found some bigger ones. The biggest White Pine we know of is in Martock, Hants County –



LARRY BOGAN

Sue Crosby with E. White Pine

153 cm in diameter and 30 m tall. The largest Red Oak is at Paradise, Annapolis County – 168 cm in diameter and 22 m tall. The NSFT have a new way of scoring big trees: diameter in centimetres plus height in metres. The White Pine gets a score of $153 + 30 = 183$; the Red Oak $168 + 22 = 190$.

In the 2006 autumn issue of this Newsletter I announced the existence of a citizen-science big-tree project by Nature Nova Scotia. Submissions – of any species of tree at any location in the province – are listed in an online table (see <http://naturens.ca/node/12>). You can read more about the project and criteria for submissions on the Nature Nova Scotia website (<http://naturens.ca/node/10>), and I encourage you to measure and submit information on any big tree you find. Many species and counties have yet to be entered into the project. Most of the big trees listed are in urban settings, but I have heard of large trees in forested areas, and we need some documentation from those.

REFERENCE

Old Forest policy: <http://novascotia.ca/natr/library/forestry/reports/Old-Forest-Policy-2012.pdf>

Protected areas map: <http://www.gov.ns.ca/nse/protectedareas/map.asp>



BRIAN MCKIBBIN

Shorebirds and Swifts

by Jim Wolford

SHOREBIRDS AT EVANGELINE BEACH

JULY 27, 2013 – Mud Creek Days in Wolfville (annual weekend of activities) and some naturalist/conservation groups combined to offer two nature outreach programs today: Shorebirds in the afternoon and Chimney Swifts in the evening.

At Evangeline Beach, North Grand Pre, shorebird numbers are gradually building up toward a peak sometime in early to mid-August. The daytime high tide was 5:25 p.m., and the event began there at 1 p.m., when the tide was still well out. Thus the sandpipers and plovers were barely visible near the water's edge but in noticeable flocks on the mudflats, as revealed by spotting scope.

Sue Abbott of Bird Studies Canada (BSC) and Jennifer Graham and others from the Ecology Action Centre were on hand with some displays and books by the viewing platform at the parking lot. Sue is the coordinator of the Piping Plover Guardians for BSC and works on other shorebirds plus Important Bird Areas (like the local part of the Minas Basin). Jen is the coordinator for coastal issues for EAC; she was there to discuss the need for a coastal act for Nova Scotia and various issues like ongoing erosion, sea-level rise, and climate change.

At one point, I did a very quick and crude estimate of the total numbers of small shorebirds, collectively called “peeps” by most of us. They were all in a narrow band along the water edge and were easy to scan and count (approximately) by hundreds. I got a total of 4,000 in that small area of beach in front of us to the north, toward Cape Blomidon.



RICK WHITMAN

Black-bellied Plover

And who knows how many other similar flocks of feeding peeps were out on the huge mudflats of the mouth of the Cornwallis River, just to the west of us (not to mention also the mudflats from the Windsor Causeway north along the Noel Shore)? Obviously, counting shorebirds is difficult and tricky, and most decent estimates come from aerial views/photos of dense roosts of them. But such activities are very expensive, and funding for them is very limited, especially in recent years).

It was nice to be out there for the long partial cycle and watch the incoming tide approach very slowly at first, and then seemingly much more quickly, with the shorebirds becoming more and more obvious and flying about in flocks, especially when much of the mudflats got covered up by the incoming tide.

An important point in mudflat ecology is that the incoming tide brings in a different suite of predators (e.g., fishes, shrimps) upon the diatoms and critters of the intertidal flats, so that something is trying to eat them all the time!

About 40 people showed up for this event; by 2:30 p.m. there was an accumulation of birders present with scopes and binoculars. Taking a walk east along the beach for perhaps 10 minutes, I was disappointed at not finding any “sea mops” (egg-cases of long-finned squids), which were common last year, and some were present about

a week before. But we did get nice close views of dozens of Semipalmated Sandpipers and Semipalmated Plovers. Richard Stern and one other birder mentioned seeing single White-rumped Sandpipers as well, plus Willets and yellowlegs in Wolfville Harbour earlier.

I advised one family to please get off the narrowing beach and leave it for the shorebirds, and this information was apparently received positively.

A couple of immature Bald Eagles were seen, but no falcons (Merlins or Peregrines) were reported.

SWIFT NIGHT OUT

This second outreach event, on Chimney Swifts, started at 7 p.m. in Acadia's Beveridge Arts Centre. Participants totalled perhaps 65, plus host James Churchill and the two speakers, Ally Manthorne of Maritime SwiftWatch and Bird Studies Canada, and Jim Wolford of BNS. And in the background was Dave Currie of the Nova Scotia Bird Society, another sponsor of both activities today.

Ally delivered an excellent illustrated presentation on the natural history and endangerment of Chimney Swifts in the Maritimes and elsewhere, plus the threats to their habitats and their foods. Then Jim gave a short talk on the Wolfville history of roosting Chimney Swifts, noting that very little is known of their local nesting numbers and whereabouts.

Ally brought some brochures on Maritime SwiftWatch and some sheets about how to be a steward for Chimney Swifts, etc. For more information on swifts, see the website chimneyswifts.org, a project of the Driftwood Wildlife Association in Austin, Texas, where Paul and Georgean Kyle have oodles of info, including newsletters and books that can be read online or ordered. Find out, for example, all about how to build many kinds of artificial towers for roosting or nesting swifts.

After 8 p.m. we all migrated to the Robie Tufts Nature Centre for the "show" of roosting swifts, which turned out to be extremely memorable for all. Mud Creekers were also there in numbers; Ally

guessed 90 people of all ages stood for a long time and waited and watched.

The weather cooperated quite well, with adequate visibility. And we were all fortunate to be the beneficiaries of catered coffee and juice and cookies from JustUs!.

Sunset time was about 8:49 p.m.

There was little to watch until a single swift dropped suddenly into the chimney at 8:23 p.m., followed by another five minutes later, then three more, followed by a single bird making an exit from the chimney. We thought the end was near when, at about 8:50, a total of 80+ swifts dropped in vertically over a couple of minutes.

But then, not much later (and inexplicably), 35 or so swifts suddenly burst out and off in all directions (just like their morning exits, which few see). There was no apparent stimulus for this, and mass exits are unusual in evening. Then at about 9:15, happily, we saw the same swifts (hopefully) that disappeared all drop back down into the chimney.

Shortly thereafter, we disbanded, and poor James Churchill and a few others were left to clean up in the near-darkness.

Double thanks go to James for taking care of the bookings and technological stuff on campus, and BNS for providing the audio system for the speakers.

NATURAL HISTORY

Meconopsis Madness

by Barry Yoell

HORTICULTURISTS, and plant enthusiasts, recognize the Himalayan Blue Poppy (*Meconopsis*) as one of the supreme challenges of the flower world. We are all familiar with the poppy fam-

ily – the cheerful reds, pinks, yellows of the Opium Poppy (*Papaver somniferum*), Iceland Poppy (*P. nudicaule*), California Poppy (*Eschscholzia californica*) – and there are myriad others. The Himalayan Blue Poppies, however, are different and seem to be in a class by themselves. They were discovered in the early 1900s by some of the intrepid plant explorers (Ernest Wilson, George Forrest, Frank Kingdon-Ward) and brought back from the foothills of the Himalayas to England and France, where they were an immediate hit with the cognoscenti, the wealthy, and the botanical gardens. A dozen or more varieties are now recognized, mostly in shades of vivid blue, a few yellows, whites, and purples, but blue is king. Apart from the obvious beauty and rarity, the plantsmen’s fascination with these plants centres on the difficulty in cultivating them. They are devils to grow.

I have had nearly a decade of planting their seed, had great success with germination, shared the seedlings with many fellow gardeners – and so far all of the plants have died, long before blooming! Part of the reason for my failure lies in the difference between our Nova Scotia climate and that of their native domain. They grow naturally



BRIAN MCKIBBIN

in the steep, rocky foothills of the Himalayas, up to about 4000 m. They thrive in cold, snow-covered but dry winters and cool, damp summers – the reverse of much of our Nova Scotia climate. And slugs seem to find them delicious. Considering all that, my failure is somewhat understandable. Still, I persevere. A few of our local nurseries are now successfully propagating them, and they are available, at some expense. This, however, fails to satisfy the need to start from seed.

There is an interesting side issue concerning *Meconopsis*. This starts with Linnaeus and his binomial classification system established in the 1700s. All life is catalogued and differentiated by his system, and the poppies are no exception. The very first *Meconopsis* described and catalogued was *M. cambrica* – the yellow-flowered Welsh Poppy, native to northern Europe. All the other *Meconopsis* species discovered (*M. betonicifolia*, *M. lancifolia*, etc.) were added later. Recently, taxonomists have decided that *M. cambrica* is, in fact, not related to the Himalayan group, and cannot, therefore, share the same, *Meconopsis*, name.

Evidently, tradition demands that the first plant named in a group retains that name if taxonomists separate it from subsequent members of the group. In other words, *M. cambrica* retains the *Meconopsis* generic, and all the others will have to relinquish it and have another name established. This is much to the annoyance of the aficionados. This is more upsetting that it may appear, as the aficionados despise *M. cambrica* – it is common and easily grown, in fact almost a weed! Such a contrast to the exotic, much-sought-after Himalayan Blue.

If you are interested in seeing these beauties in bloom, whether or not they are still named *Meconopsis*, the Reford Gardens in Grand-Métis, Quebec, The Butchart Gardens near Victoria, BC, and the VanDusen Botanical Garden in Vancouver all have well-established plantings. They are not only beautiful, but help to maintain my optimism that we too can have them bloom in Nova Scotia.

Summer Weather 2013, Eastern Annapolis Valley

Larry Bogan, Cambridge Station

| | Temperature | | | Precipitation |
|--------------------|-------------|-------------|--------------|---------------|
| | Max (°C) | Min (°C) | Mean (°C) | (mm) |
| June 2013 | 21.6 | 11.6 | 16.6 | 124.0 |
| (30 yr. average) | (21.5) | (10.5) | (16.1) | (81.0) |
| July 2013 | 26.0 | 15.7 | 21.1 | 90.0 |
| (30 yr. average) | (24.8) | (14.0) | (19.4) | (88.0) |
| August 2013 | 24.8 | 12.7 | 18.8 | 39.0 |
| (30 yr. average) | (24.2) | (13.5) | (18.9) | (85.0) |
| Season | 24.2 | 13.4 | 18.9 | 253.0 |
| (30 yr. average) | (23.5) | (12.7) | (18.2) | (254.0) |

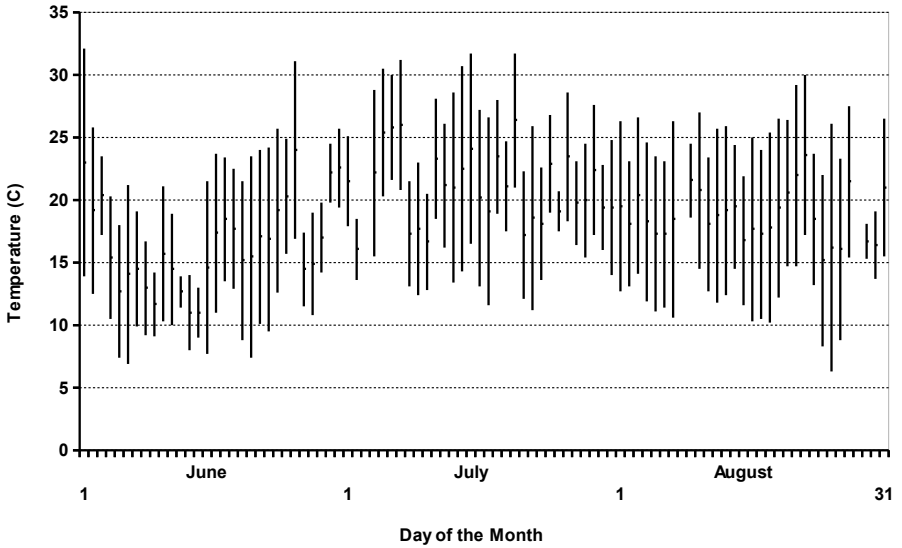
Source: Environment Canada data for Kentville, NS (<http://weatheroffice.gc.ca>) and Canadian Climate Normals and Averages (Kentville).

TEMPERATURES

The trend continues, the summer of 2013 being warmer than the 30 years from 1970 to 2000. This summer was warmer by 0.7°C on average. June and July were above average by 0.5 and 0.7°C, respectively, but August was actually a bit cooler. I should point out that the average daily maximum temperature in August was 0.6°C higher, but the average daily minimum was 0.7°C cooler. So the days in August were

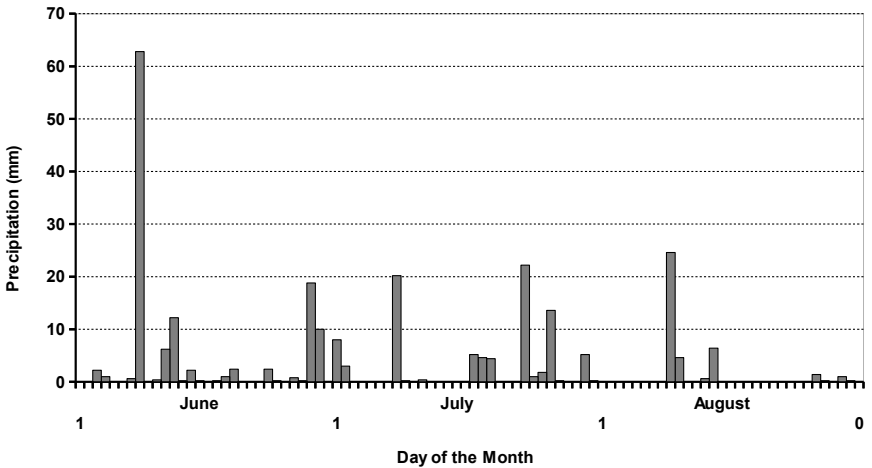
Daily Temperatures, Kentville, N.S.

June, July, August 2013



Daily Total Precipitation, Kentville, N.S.

June, July, August 2013



hotter and the nights cooler than average. All in all a nice summer, if not a bit hot and humid at the beginning.

PRECIPITATION

As always, the year-to-year rainfall is more variable than temperatures. Although the total rainfall for the season was almost exactly average, it was not distributed evenly throughout the summer. June was the wet month, with more than half again as much rain as an average June. July was normal, while August got only half the normal. The distribution of rainfall is shown in the accompanying daily precipitation chart.

ASTRONOMY

What's in the Sky?

by Roy Bishop

HIGHLIGHTS FOR OCTOBER 2013 THROUGH JANUARY 2014

October 6, 7, & 8: Largest tides of the month

October 12: Three simultaneous total solar eclipses on Jupiter (see below)

October 18: Full Moon and a lunar eclipse (see below)

November 3: Solar eclipse at sunrise (see below)

November 3: Standard Time begins

November 5 & 6: Largest tides of the month

November 17: Full Moon

November 18 to 30: Mercury well placed in dawn twilight.

December 4, 5, 6: Largest tides of the month
December 9: Earliest sunset of the year (16:35)
December 13: Geminid meteor shower
December 17: Full Moon (smallest of 2013)
December 21: Solstice, winter begins (13:11), shortest daylight of the year

January 2, 3, 4: Large tides
January 2: Latest sunrise of the year (07:56)
January 3: Quadrantid meteor shower early this evening
January 4: Earth closest to Sun in 2014
January 5: Jupiter at opposition
January 16: Full Moon (smallest of 2014)
January 31: Large tides

A TRIO OF TOTAL SOLAR ECLIPSES

In the early hours of October 12, observers favoured with a clear sky, steady seeing, and a good telescope will be able to witness a rare event: three simultaneous total solar eclipses on another planet. Starting at 01:32 and lasting for an hour, the shadows of Jupiter's satellites Callisto, Europa, and Io will fall upon the clouds covering the giant planet. Callisto's shadow begins the first total solar eclipse at 00:12, Europa's encounters Jupiter at 00:24, and Io's joins the other two at 01:32. Callisto's shadow slips off Jupiter at 02:37, Europa's at 03:01, and Io's at 03:44 (all times ADT). During these events Jupiter will be at a low altitude (18 to 28 degrees) in the eastern sky, so good seeing (steady air) will be necessary to see the eclipse shadows.

OCTOBER'S PENUMBRAL LUNAR ECLIPSE

October's full Moon occurs on the evening of Friday the 18th, when the Moon passes through the outer portion of Earth's shadow. As viewed from the central and southern portions of the Moon, Earth only partly covers the Sun, while much of the northern portions

remain in full sunlight. No part of the visible face of the Moon is totally cut off from sunlight. Thus it is a penumbral eclipse, not a partial eclipse, not a total eclipse. The eclipse begins at 18:51, an undetectable event. Mid-eclipse is at 20:51, with the southern portion of the Moon appreciably dimmed. The eclipse ends at 22:50, when the Moon will be back at full brightness (all times ADT).

SUNRISE SPECTACLE NOVEMBER 3

On Sunday, November 3, standard time returns. Also, there is an unusual sunrise. The Sun rises with its right-hand side missing! From Nova Scotia, the Sun and Moon rise together that morning (near 07:00 AST for viewing sites near Wolfville), with the Moon partly covering the Sun. Along a narrow strip of the North Atlantic Ocean and equatorial Africa there is a rare, hybrid, annular-total solar eclipse that day, but from eastern North America the eclipse is only partial. To view the eclipse safely, either a proper solar filter (for example, a #14 welder's filter) is necessary, or an image of the Sun can be projected onto a white cardboard screen by using binoculars mounted on a tripod or other steady support. **DO NOT** look directly at the Sun through the binoculars! If children are present, be especially vigilant that they do not try to look through the binoculars. Let the sunlight passing through the binoculars fall on the white viewing screen about half a metre behind the binoculars, and adjust the focus so the image of the Sun on the screen is sharp. There will be two images, one from each side of the binoculars. The contrast can be improved by blocking direct sunlight from striking the viewing screen. The partial eclipse ends at 08:15, in time for breakfast.

A DECEMBER COMET

Comet ISON, named for the International Scientific Optical Network involved in its discovery, is approaching the inner Solar System. It will pass within one diameter of the Sun on November 28 and, if it survives that roasting, may put on a memorable show for us dur-

ing the first half of December. The path of a comet is predictable to high precision, but in terms of brightness and spectacle, comets are notorious for being unpredictable. As of early September, ISON was fainter than initially predicted for that date. Even if ISON is easily visible to the unaided eye, most people likely will miss it, both because today most people live within the light pollution pall of towns and cities and because when it is at its best, ISON will be in the pre-dawn, eastern sky. Comet West was a spectacular, very bright comet 37 years ago. Although light pollution was not as bad then, hardly anyone saw comet West because it too was in the pre-dawn sky.

THE NEW YEAR'S GIANT PLANET

2014 opens with the Solar System's largest planet dominating long, cold, clear January nights. At opposition on January 5, Jupiter rises in the northeast at sunset, and is high in the sky at midnight. Not only is Jupiter the largest planet, its mass is more than twice that of all the other planets combined, 318 times the mass of Earth. It has been said that the Solar System consists of Jupiter plus debris. Binoculars will reveal one or more of Jupiter's four large Galilean satellites, three of which are larger than our Moon. Galileo's discovery of the night-to-night motion of these satellites around Jupiter was the first clear evidence that the universe is not centred on Earth but that Earth is but one of the planets orbiting the Sun.



POLYPHEMUS MOTH

MARY PRATT

A Sacred Place

by Dierdre Dwyer

She is a noble home – the Cape:
theatre of cliff,
sandstone throne:
Glooscap came in his stone canoe
to this, his chosen place.

She is a calendar of crops, milk
with more than a hint of pasture,
the first apple – superlatives
are her allies

She's a topography
of winter and spring waiting
and that first drive, too many
restless stops before Canning,
Pereau with its deltas and mudflats,
Delhaven with the fields:
rolling temples, portals.

When we swim, Fundy is our watery altar.
When we camp, wood spirits guide us.
Nancy's pet raccoon in another life
had a Wabanaki name
and washed the Great Chief's food.

Tractors and plows are part
of the portrait,
the wharf rocks like totems
and there's truth in the land.

Where we play hide and go seek,
we find more
than farmers' sons hiding in the woodpile,
behind the bunkhouse or barn.

When we toss hay bales, transcendental
farmland, we are at energy's crossroad:
sweep of wind to the cliff and beach –

After Sunday school, my sister
says, "We are lucky;
we have God and Glooscap"
though we are heathens
at Halloween under the grand elms.

Does everyone have their Glooscap's Lodge?
If they don't, how do they live?

DEIRDRE DWYER is the author of two poetry collections: *The Breath that Lightens the Body* (Beach Holme 1999) and *Going to the Eyestone* (Wolsak & Wynn 2002.) She has two manuscripts seeking publishers: *The Blomidon Logs*, based on the logbooks her parents kept and her experiences at Blomidon, and *Harbour*, nature poems set in Musquodoboit Harbour, where she lives with her golden retriever Molly, and where she built a house with her husband Hans.

BLOMIDON NATURALISTS SOCIETY

2013 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 | \$ _____ |
| _____ | 2013 BNS Calendar | \$15.00 | \$ _____ |
| _____ | Natural History of Kings County | \$14.00 | \$ _____ |
| _____ | Within the View of Blomidon | \$20.00 | \$ _____ |
| _____ | Checklist of Kings County Birds | \$5.00 | \$ _____ |
| _____ | 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 |