

BLOMIDON
NATURALISTS
SOCIETY



SUMMER & FALL 2016 NEWSLETTER
Volume 43 · Numbers 2 & 3



ANDREW STEEVES

Hurricane-tossed wasp's nest in leaves

❧ 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.

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BNS EXECUTIVE

Past president

John Owen 902-678-0004

President

Kent Williams 902-719-5323

Vice-president

Jean Gibson Collins 902-678-4725

Treasurer

Ed Sulis 902-678-4609

Secretary

Patrick Kelly 902-472-2322

DIRECTORS

George Alliston 902-542-3651

James Churchill 902-681-2374

Kody Crowell 902-402-7520

Ken Harrison 902-678-1424

Ian Manning 902-300-4328

Marina Myra 902-538-1654

Shelley Porter 902-577-4145

Jean Timpa 902-542-5678

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EDITORIAL BOARD

Chair: Shelley Porter (902-577-4145)

Committee: George Alliston,

Rachel Cooper, Stan Moeller

Production: Doug Linzey, Gary

Dunfield, Andrew Steeves

Distribution: Ed Sulis, Mary Anne Sulis

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BLOMIDON NATURALISTS SOCIETY
members are encouraged to share unusu-
al 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 Shelley Porter at
blomidonrose17@gmail.com

Digital photographs should
be submitted to
doug@fundymud.com

Next submission deadline:
November 24, 2016

EDITORIAL: TRANSITIONS

BY SHELLEY PORTER

"Times of transition are strenuous, but I love them. They are an opportunity to purge, rethink priorities, and be intentional about new habits. We can make our new normal any way we want." —KRISTIN ARMSTRONG

Over the past eight months or so, I have been making the transition back to being a resident of the Annapolis Valley. Transition is an active word – it describes a process. When I left the Valley, things were different. The economy was struggling. Apple orchards were being cut down, no longer able to compete with cheaper imports and new fruit varieties from Washington, Chile, and China. The industrial farm model still ruled, despite several decades of efforts to revive old ways of cultivation and a move to organic growing methods. There were lovely and barely formalized farm markets in Annapolis Royal, Wolfville, and Halifax. Government and industry cut jobs. My three sisters and I all pulled ourselves up by our deep roots and left Nova Scotia. I was the first back on provincial soil, but far away from the Valley, in northern Cape Breton. The other sister who returned settled in HRM. Two of them will likely never return, having established homes, careers, and families in other provinces.

No matter where I have lived, the Valley was always a touchstone, and it was a relief to find so many things had not changed: EOS Fine Foods, Blomidon Provincial Park, grand old trees lining country roads ... country. The lushness of the land in spring and summer, the smell of things growing, the sensual summer heat – features of this region that restored my soul.

Other things have changed dramatically. At times, reacquainting myself with my home has been like moving through a dreamscape where everything is the same, yet everything is different. Landmarks are gone, or changed so much they are unrecognizable. Orchards and pastures have been replaced by vineyards and housing developments.

And it's not only infrastructure change that is happening here in the Valley: our natural world is changing, too. When I left there were no Northern Cardinals or Grey Squirrels here. Now they are common. I have failed so far to attract any cardinals to my back yard bird feeders, but I was thrilled and horrified a few days ago to glance out the back window and see a Grey Squirrel dashing past the tomato plant containers on the deck.

Why are transitions important? In equestrian sports, transitions are about changes in direction, in speed, or in stride length. The definition may be simple, but riding smooth transitions is not. Teaching your horse to make smooth transitions is rarely ... well, smooth. You need skill and awareness and intention. I loved the long, hot summer, and I appreciate the beauty of the cardinal, but I am aware they are signs of a larger transition: the advance of the Anthropocene. How we approach this transition as a species – as societies and cultures – will influence whether our ride is like that on a green-broke mule or a Rolex-level dressage horse. You can never control everything, but you can train, you can adapt, you can accumulate information. I have no doubt that it will be strenuous; yet if we approach it with intention, rethink our priorities, and be open to opportunities, our new normal will find us relaxed and centred in the saddle enjoying a deep understanding of, and bond with, our environment.

— *Club Notes* —

BNS SOCIAL MEDIA

BY IAN MANNING

A quick note from the BNS social media/communications side of things. The BNS Facebook/Twitter following continues to grow. If you or your families use social media, be sure to follow and contribute to our pages:

- <https://www.facebook.com/Blomidon-Naturalists-Society-478173379028398/>

- <https://www.facebook.com/groups/blomidonNaturalistsSociety/>
- <https://twitter.com/bns1974>

There are different ways to measure the success of an organization's social media reach. The easiest and most effective is a count of how many people participate. The terminology changes depending on the medium, but the numbers of Twitter followers or Facebook members (or likes) can be viewed as equivalents. As of June 8, BNS was counting

- Twitter (followers): 315
- Facebook Group (members): 192
- Facebook Page (likes): 152

The more content shared from our social media, the greater our reach. If you are a photographer and willing to share your photos for use in promotional materials, I'd greatly appreciate an e-mail (Ian Manning <ianmanning4@gmail.com>).

Thanks to everyone who takes the time to post photos, share events, and contribute to the online conversation.

— Club Notes —

BOARD OF DIRECTORS REPORT

BY KENT WILLIAMS, BNS PRESIDENT

Summer

*To see a World in a Grain of Sand
And a Heaven in a Wild flower,
Hold Infinity in the palm of your hand,
And Eternity in an hour.*

William Blake, the English poet, wrote these famous lines over 200 years ago, and even today they grasp the luminosity and wondrous

enchantment that nature brings into our lives. Today's world is so full with commercial and virtual activities that we do not always take time to be present to what seems invisible to us. In moments when we explore our natural world, stop and fully connect, the invisible becomes visible, and we enter new worlds where time can stand still through the sentinel wonder we experience. As the weather warms we tend to start to explore the outdoors more and experience these moments of joy more often.

As we are into the full swing of summer my president's report is mainly a wish for members and readers alike to enjoy exploring the "invisible" in nature. Recently, we had the great opportunity to hear valuable presentations that can help us in our adventures, such as Frances Anderson on lichens. She shared that Nova Scotia is a rich and diverse world of these living symbiotic species – and how they are being used to detect ecosystem pollution. So next time out, check out those lichens; they're everywhere when you start looking for them.

Another note: I was in attendance at the recent Nature Nova Scotia conference that BNS hosted at the KC Irving Centre with great success. I want to congratulate Jeannie Gibson Collins and Patrick Kelly on behalf of our society for a brilliant job of organizing the event, with amazing speakers and field trips. The appreciation was shared by all those in attendance. We will try to utilize some of the valuable talks from this conference and hopefully welcome the speakers to share with our membership later in the year.

I want to inform our membership that we have accepted two student candidates from Acadia to accept our BNS Scholarship Award. We will be introducing the awarded students in the fall meetings. Moreover, we are pleased that the BNS-sponsored children's nature camps facilitated by Marina Myra will be continuing again this summer and that many kids are getting the opportunity to discover that sense of wonder, connecting with our roots of nature.

I wish you all a wondrous summer, full of nature adventures – making the invisible become visible.

Fall

I love this time of year in the Annapolis Valley, where it's harvest time and there seems to be a renewed bustle as urban dwellers come to get their fresh-grown produce or sample our local wine or cider and craft beer. Also, Acadia students fill the town up with millennial youth, lowering the average age in Wolfville. This all brings an air of hope through being attached to the promise that youth brings and the feeling of a locally grown community – even as we are surrounded by the complexity of a rapidly growing world. We are blessed to live in such a special place with such natural beauty.

I'm happy to say that the fall BNS programming looks valuable. Dr. Rob Raeside of Acadia, Donna Crossland from Kejimikujik National Park, the BNS Student Award winners, and our very own Marina Myra are presenting to the membership their stories that relate to the natural history of the area. I had the opportunity to hear Dr Raeside and Ms Crossland talk at the Nature Nova Scotia annual conference, so I feel you will enjoy the value of these talks, as they touch on important ecological challenges of our times. Moreover, over the last two years we have awarded BNS scholarships to three outstanding students at Acadia, and we will have an opportunity to hear about their contributions to research from their studies. We can be proud that BNS money is being used to support emerging research with bright students.

I feel that we are in an ecological crisis, with development of land for commercial use and natural resource extraction. One concern that the board feels is a significant threat to our area is the ecological impoverishment of the local sand barrens in the Annapolis Valley. Commercial enterprises have been exploiting the relaxed regulations and extracting valuable sand through open sand-pit mining, which is causing significant damage and depletion to the natural habitat, home of many local other-than-human species. As our mandate is to educate, we will be using our resources and influence to coherently bring together thought leaders on this natural habitat to educate the public and bring awareness to this plight and ecological

impoverishment. This is just one of the issues we are keeping abreast of, and we will continue to keep the membership updated.

In the end, our very existence is an inherently interrelated partnership with the diversity of other species. What good is economical development if it sells out our land and destroys local habitat?

The BNS board looks forward to serving the membership through the rest of 2016. We have our AGM coming up in November, and we are always looking for new nominations to participate in building an even brighter future for BNS and our local natural community. I look forward to seeing members at our upcoming educational evenings.

I leave you with a quote from David Abram's *The Spell of the Sensuous* (1996):

Humans are tuned for relationship. The eyes, the skin, the tongue, ears, and nostrils – all are gates where our body receives the nourishment of otherness ... [E]very aspect of the earthly sensuous could draw us into relationship ... Every sound was a voice, every scrape or blunder was a meeting – with Thunder, with Oak, with Dragonfly ... We are human only in contact, and conviviality, with what is not human. (p. ix).

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 Beverage 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. For more information on any events contact us at info@blomidonnaturalists.ca.

NOVEMBER 21, 2016 – BNS Annual general meeting and student research reports. The three Acadia students – Kody Crowell, Tyler d’Entremont, and Sarah Fancy – recently awarded \$2,000 BNS bur-saries will speak on their research projects.

DECEMBER 12, 2016 – *Sky Perspectives: Notes from a 77-orbit Visit to the Third Planet*, by Roy Bishop. Canada’s pre-eminent popularizer of astronomy, Terence Dickinson, refers to amateur astronomers as the “naturalists of the night.” I count myself among them. One of the reasons the Blomidon Naturalists Society is now in its fifth decade is that its founders cast a wide net when they wrote, “For the purpose of the Society, the word ‘nature’ will be interpreted broadly and shall include the rocks, plants, animals, water, air, and stars.” Addressing stars, I shall describe some of my own encounters with the mystery and beauty of the sky, followed by a summary of some of the unprecedented advances that have occurred in astronomy within my own lifetime.

Field Trips and Other Nature Events

Visit the BNS website for upcoming events and field trip maps and directions.

— *Field Trip* —

KINGSTON SAND BARRENS

BY RUTH E. NEWELL

JULY 11, 2015 – We had a wonderful turnout for our field trip to a remnant sand barren (also called heathland) in the Kingston area. The actual site we visited was in Green Acres, just off of Hwy 1 on Hwy 201, beside the rail trail.

It is believed that at one time (pre-settlement), undisturbed sand barren or heathland in the Annapolis Valley covered an area of roughly 200 km². Today, it is estimated that less than 3 percent of the

original heathland remains (see P.M. Catling et al., "Saving Annapolis Heathlands," *Canadian Botanical Association Bulletin* 37(1), 2004).

Reasons for the significant decline of this habitat include extensive conversion to farmland and road, commercial and residential development, and the loss of natural ecological processes such as wildfires, which are essential for the maintenance of open habitat typical of sand plains and required by the unique plant species assemblage found there. A more recent concern has been the establishment of the invasive Scots Pine (*Pinus sylvestris*). This tree rapidly establishes in dense stands on the sand barrens, resulting in the loss of most of the native sand barren vegetation in these heavily shaded areas.

Plant species encountered during our field trip include the provincially endangered Rockrose (*Helianthemum canadense*). This herbaceous, yellow-flowered species occurs in Nova Scotia only on the Kingston sand barrens (where it is declining due to loss of habitat) and in the vicinity of Ponhook Lake in Queens County. Another provincially sensitive species we encountered is the beautiful Golden Heather (*Hudsonia ericoides*).

Two dominant low, woody, evergreen ground covers occurring in sand barren habitat are Broom Crowberry (*Corema conradii*) and Bearberry (*Arctostaphylos uva-ursi*). Fire is known to be an important stimulus for seed germination in the former species (Martine et al. 2005).

Other species observed during our walk include Sweet Fern (*Comptonia peregrina*), Hairgrass (*Deschampsia flexuosa*), Blueberry (*Vaccinium angustifolium*), Huckleberry (*Gaylussacia baccata*), the colonial Dwarf Shadbush (*Amelanchier spicata*), Sheep Laurel (*Kalmia angustifolia*), Cow Wheat (*Melampyrum lineare*), and Starved Panicgrass (*Dichanthelium depauperatum*).

[NOTE: This report from last year was not published earlier for lack of space. Our apologies to Ruth – ED.]

AVON RIVER CANOE TRIP

BY PATRICK KELLY

APRIL 9, 2016 – Unlike last year, the river was not frozen solid on the chosen date. We had six vessels, with people coming from as far away as Dartmouth and Clare. We put in at the Sangster Road Bridge, where it crosses the Avon River, and were delighted to find that as part of the bridge replacement, there was now a dry hydrant there so that one could drive to the shore and drop off the boats at the riverside.

The paddle upstream went well, and we heard Killdeer calling from the fields on either side. Farther upstream, we also had a great view of a side channel with an active aboiteau. We noticed exposed mudflats on either side of the river and quite a few empty shells of freshwater clams/mussels. I was asked about their edibility and admitted that I had no idea if they were safe to eat. Later that day I sent out an update to the participants that there are quite a few species in Canada, some in decline due to habitat loss, pollution, and fish declines. (The larval form lives in the gills of specific fish species, without harming the fish, and then drop off to start life as an adult, so it is more of a dispersal method.) As filter feeders they tend to accumulate metals and other toxins. They are considered “survival food,” as you can eat them but apparently they take on the taste of their surroundings – so, if you like the taste of Fundy mud they are likely not too bad. Clearly, something (likely Muskrat or Raccoon) finds them quite tasty, judging by the number of shells.

As we neared the T-intersection where the river branches, we got a good view of an eagle nest that was in a row of trees north of the junction. It was here that the exposed banks became a problem as we turned to the right to continue toward the bridge on Castle Frederic Road. This area is normally a flatwater, but we had quite a bit of current as well as very little clearance and had to stop just before the bridge. Once a year the causeway is opened up to drain

the lake so that annual maintenance can be done on the causeway gates. The lake level had already dropped enough to cause problems in the upper reaches.

We turned around and stopped at the junction for lunch, as it was relatively flat and we could get up above the mud. One enterprising duo took a quick trip up the other branch (which eventually leads to the power dams on Highway 14) and surprised more than 100 ducks that were too far away to identify. On the return trip we got a great view of a Muskrat, which came out of the water and spent some time on the mudflat. This was a great trip, and hopefully next year I'll check in advance and try to do it when the water level is more normal.

— *Field Trip* —

HERBERT RIVER TRAIL

BY PATRICK KELLY

JUNE 4, 2016 – This trip always seems to have great weather, and this year was no exception. There were 11 of us on this trip, and that seemed to be just the right size. Richard Stern noted at one point that each year we always seem to find a new species, and this year we had three: there was a pair of Ospreys circling over the river; at the wetland/pond we all got great views of an Olive-sided Flycatcher that put on quite a display as it foraged from the top of a dead tree; and a Northern Waterthrush was heard but not seen.

We had great views of a Chestnut-sided Warbler and a Blue-headed Vireo, as well as a Ruby-throated Hummingbird that was also perched on a branch and darting out to catch insects. While they were not seen, we did hear several Veerys, and we had a brief look at a Spotted Sandpiper. Also heard, but not seen, was an Eastern Wood-Pewee. One bird that seems to be doing well this year is Yellow Warbler. There were lots of them everywhere along the trail, and they are also abundant in many other locations.

There were also a number of plants worth observing. Bernard

Forsythe pointed out Feverwort (*Triosteum perfoliatum*), which was in bloom. He noted that it's common in that area but rare elsewhere. Other notable observations included Painted Turtle and hundreds of tadpoles clustered on the bottom of the river.

— Field Trip —

NEW BIRDERS' WALK, WINDSOR

BY PATRICK KELLY

JUNE 5, 2016 – Half a dozen people showed up to learn about birding, although there were a few who were also looking for a few new birding spots. We started at the parking area by Exit 6 on Highway 101. The trees and shrubs there contained lots of Yellow Warblers, which is a great species to start learning how to identify birds by song. A hole in a dead tree, which I noted had likely been made by a Northern Flicker, gave us quite a surprise when several minutes later a flicker stuck its head out of the hole, glanced around, and then flew away, displaying its distinctive white tail patch. It later returned, giving us a quick view of its bright-yellow underwing before it popped back in while its mate came out to trade duties. From the top of the dyke we watched an Osprey that was walking on the exposed mud before it finally took to the air.

Our next stop was the Windsor Sewage Lagoon, where there were Black Ducks and even more Yellow Warblers, and with some patience we also got to see about half a dozen Tree Swallows and a few Barn Swallows. The last stop was the Shell Environmental Park, which was full of ... that's right ... Yellow Warblers. At last we finally found something else there that was relatively abundant as well: Common Yellowthroats. While we were not able to see one, one of the group managed to get a picture of a Yellowthroat by going off on a short trail where one was singing. We were also pleasantly surprised when four or five Cedar Waxwings flew into some nearby trees. Windsor does not seem to have kept up the pathway that circled through the area, so we called it a day.

MISSION MONARCH AND CITIZEN SCIENCE

BY LARRY BOGAN

Monarch butterfly caterpillars only feed on milkweed, so patches of Common Milkweed and Swamp Milkweed are the places to find the insect. The decline of the Monarch population and problems with its long-distance migration require that we understand its activity. As naturalists, we can help with this effort.

Mapping milkweed plots in the Annapolis Valley

In the fall of 2015, a group of BNS members started mapping locations of milkweed that grew in Kings County. The results of that survey are published on valleynature.ca as a Google map for use in looking for Monarchs. This year more plots were found and added to map. There are currently over 80 plots of milkweed mapped in the Annapolis Valley from Bear River to Hortonville. The plan is to have local naturalists monitor some of these plots for Monarch eggs, larvae, and butterflies. With the advent of the North American initiative of Mission Monarch, those local surveys can be put in the international database of Monarch activity.

eButterfly and Mission Monarch

Naturalists have eBird to report bird sightings and eButterfly to report butterfly sightings. These are valuable resources for keeping information on our native wildlife, but they require observers to submit sightings. During the six years from 2010 through 2015, naturalists identified, counted, and reported butterflies, and many used the website www.e-butterfly.org to report their surveys. In 2016, several institutions in Quebec and across Canada partnered to create Mission Monarch and to use the database and reporting capabilities of eButterfly to report Monarch activity. The effort fol-



ED SULIS

lows the initiative of the Monarch Larva Monitoring Project at the University of Minnesota and is co-operating with that project.

Mission Monarch is a citizen science project to survey and collect information at milkweed plots across North America to monitor the health and success of breeding Monarch butterflies. The survey is ongoing during the breeding season, from July through September. To encourage participation, a Mission Monarch Blitz was announced for August 13–14. Several of us spent part of that weekend looking at hundreds of milkweed plants.

Survey results

Sixteen plots were examined during the blitz. Most were negative for the presence of Monarchs, but four plots had larvae (2, 4, 2, and 17 larvae), and two plots had butterflies present. Surveys outside the blitz weekend found one larva in Port Williams, but there were many more in my field in Cambridge.

Since our milkweed field is behind the house, it gets surveyed nearly every day. Our main purpose, however, is to bring in eggs and larvae to protect them from predators. We will have raised well over

100 Monarchs by the end of the season and have already released over 60 butterflies as of September 1. Some Monarchs do survive in and emerge from the field, and we saw them emerging in late August. On one day there were 6 to 8 fresh new Monarch butterflies flitting about the field.

Lisa Proulx, living near Annapolis Royal, is finding many Monarch larvae in fields near her. She is also raising over 100 butterflies away from field predators.

Not many Monarch butterflies were seen across Nova Scotia in early summer, so I am not surprised that few larvae were found in our Mission Monarch searches. More Monarchs will be seen this fall as the Monarch offspring emerge and head for Mexico.

Websites referred to in the text

valleynature.ca (website maintained by Larry Bogan for presenting natural history results)

mission-monarch.ca (reporting site and data presentation of milkweed plot surveys across North America)

www.e-butterfly.org (reporting and data presentation site for all North American butterfly observations)

ebird.org (reporting and data presentation for North American bird observations)

— *Natural History* —

A MONARCH COUP

BY LARRY BOGAN

On July 12, 2016, Larry posted a message to the NatureNS e-mail forum. The following is adapted from Larry's message.

I finally got around to checking the Monarch Watch list of tags found in Mexico for the 2015 season (monarchwatch.org/tagmig/recoveries.htm). We have been tagging for several years and have

Certificate of Appreciation

Congratulations! A monarch butterfly tagged by

Alison and Larry Bogan

as a part of Monarch Watch's large-scale mark and recapture study of the monarch's migration was recovered/sighted after its release.

Tag Code: **UGL-881**

Tag Date: **29 August 2015**

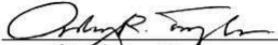
Tag Location: **Brooklyn Corner, Nova Scotia, Canada**

Report Date: **06 March 2016**

Report Location: **El Rosario Butterfly Preserve, Michoacán, Mexico**

Distance Traveled: **Great Circle Distance = 4330 km**

Your cooperation helps to further our knowledge of monarch butterflies!


Chip Taylor, Director
Monarch Watch



*Certificate of Appreciation issued to Alison and Larry Bogan by Monarch Watch
(monarchwatch.org)*

never had a return, but this year one of our tags was retrieved in El Rosario, Mexico. (The El Rosario Butterfly Preserve is 110 km north-west of Mexico City.)

Monarch UGL-881 was released on August 29, 2015, from our home at Brooklyn Corners, Kings County, Nova Scotia, along with four other Monarchs. It was a female. Her tag was recovered on March 6, 2016. In total, we tagged 50 of the 75 Monarchs raised last year. UGL-881 was the ninth Monarch we released last year and the seventh one tagged. The distance between our home and the El Rosario Reserve is a great circle distance of 4330 km.

This answers some questions that we have had. Do our Monarchs go all the way to Mexico or head for Florida? Can they make it all the way to Mexico from Nova Scotia? Are we really contributing to the maintenance of the migration of Monarch butterflies?

This has encouraged us to continue our yearly efforts in raising Monarchs above and beyond what can survive in the wild.

BIRDING ON THE FLY: RUNNING A BREEDING BIRD SURVEY ROUTE

BY PATRICK KELLY

Breeding bird surveys are fixed routes, surveyed annually, that were designed to monitor long-term changes in bird populations in Canada, the United States, and now, northern Mexico. The methodology is similar to that of the recent breeding bird atlas in the sense that the counts are done as point counts (i.e., at each stop you have to identify all the birds seen or heard within a set distance). There are some major differences, though. Each route is 24.5 miles (39.4 km) long, with a total of 50 stops, 0.5 mi. (800 m) apart. At each stop a three-minute point count is taken. You can only count the birds within the three-minute interval. Birds seen outside that time, including while travelling between stops, no matter how interesting, are not recorded. Unlike the atlas, where the point counts could be done over five years, a breeding bird survey must be done in five hours! There is also a range of dates, matched up to the main breeding season for the area, during which the route has to be done. In my case, the dates are May 28–July 7. Ideally, it should be run as close as possible to the same date each year.

The protocol also calls for recording the temperature, sky cover, and wind speed at every fifth stop. The route cannot be completed if the weather or wind do not co-operate, so keeping an eye on the weather forecast for a good morning is critical. The start time is 30 minutes before sunrise. One also needs to keep track of the number of vehicles that pass at each stop (as the noise would temporarily make birds harder to hear) as well as if any stop has excessive noise (industrial activity, lawnmowers, etc.). The provided tally sheets contain the 65 species most common in the area. There is also room for write-ins that are not in the regular list.

The route that I do is called Dean Chapter, done previously by Richard Stern. It starts just east of New Ross and runs east toward

Vaughan. It turns left onto Hingley Road, a woods road heading north through an area of mostly hardwoods, before making a right turn onto Mines Road and ending in Upper Falmouth at the intersection of Mines Road and Falmouth Back Road. A quick look on Google Maps will show that this area is heavily clearcut. The stops have to be done at the same location each year. While the list I inherited from Richard had descriptions for some stops (generally those at the start and end where there are houses, etc. to use as landmarks), the rest are in the woods, identified only by coordinates. As the atlas used UTM, I converted from decimal degrees to easting and northing; much of the route ran roughly east-west or north-south, so counting metres on a GPS meant that I only had to worry about watching the northing figure on the E-W sections and the easting figure on the N-S sections. Besides, I have a much better feel for metres than decimal fractions of a degree.

Even with a list of coordinates, you can waste a lot of time driving slowly waiting for the numbers to match on a GPS. To avoid this, I do a test run about a week before I plan to do the route. At the woods stops I tie a piece of bright-yellow ribbon to a bush at the side of the road. Each year, about half of the marks from the previous year are still there; the others need to be redone. I also made a mash-up CD of the bird songs from my Stokes CD set and listen to it in the car for a few weeks, just to get practice with the species I don't come across that often. The last step is to print off my own tally sheets. I find it easier to take notes and transcribe them to the official forms later. Once the weather forecast looks good, I'm ready to roll. My start time is 5:02 a.m. Sadly, the route starts in New Ross; that means waking at 4:00 a.m. Sunday makes the best day, if possible, as there are not a lot of people on the road that early on a Sunday morning.

This year is the fourth time I have done this route, but there is always a thrill each time I start. What was noteworthy this year? Stop 2: A bat is fluttering over the meadow. Not a bird, but still worth noting to report on later. Stop 4: A loon calls from the nearby lake. It is on the *normal* list, but still nice to hear. (The roosters for the first five stops do not count, the Red-eyed Vireos at each stop do!) Stop

9: An American Black Duck glides over me heading to the lake just beyond the trees. Stop 13: I hear a distinct “Quick, three beers” off in the distance. Olive-sided Flycatcher is also “normal,” but given the recent decline of aerial insectivores, I am comforted to hear this one. Stop 15: My first write-in – Common Merganser. Stop 20: Three redstarts, chasing each other around the top of a tree. I’m not sure if both males are chasing the female, or if one male is chasing the other.

Stop 21: The stop with the crazed deer! A young White-tailed Deer was grazing about 20 metres in front of the stop. I got out of the car and it ran, snorting, into the woods. No sooner did I start the timer than it came back out and stood in the road looking at me and lifting one of its front feet periodically and stomping it on the ground. I was glad to have the car between me and it. I got back into the car and tried to go slowly around it, but it bolted, snorting once again, into the woods.

Stop 23: Another write-in. This time it’s a Bald Eagle flying past. Stop 24: A great view of a catbird. I rarely get them in this route. Stop 27: There is still something a bit odd seeing a Mourning Dove cooing on a branch in the middle of nowhere. Stop 32: This time the write-in is a Chimney Swift, chittering overhead as it flies around in big loops. Must be something up there to feed on. Stop 33: A Yellow-bellied Sapsucker. Stop 36: A Ruffed Grouse drums nearby. Another “normal” bird, but also a treat.

Stop 38: I got out of my car to hear two angry robins and a Blue Jay in the woods close to the road. I started the timer and the “fight” continued for the better part of a minute. I had thought that the Blue Jay may have been trying to raid the robins’ nest, so you can imagine my surprise when a Red-tailed Hawk flew out into the clear-cut, pursued by both the Blue Jay and the robins. The hawk was a write-in!

Stop 43: A Ruby-throated Hummingbird is sitting on the end of a long, dead twig. It is a good thing they perch like that or they would be almost impossible to see. I always scan any power lines, as I have seen hummingbirds there in the past. Stop 47: My first Tree Swallow. Only one ... there were four here last year. Stop 48: Another Tree

Swallow, also down from four. This area is a meadow that lies next to a branch of the Avon River. I also get my second Red-tailed Hawk, perched on the branch of a dead tree.

Finished. The time is 9:49 a.m., and no surprises this year. In 2014, I had nine cars at one stop, probably workers heading for the South Canoe wind farm, and I was unable to do Stop 45 due to road resurfacing. This year there were a lot of hares in the woods; I saw about half a dozen grazing at the side of the road on both the trial and actual trip. I had rarely seen them in past years.

For anyone wishing to volunteer for a survey route, there are currently only two survey routes open in Nova Scotia (Tatamagouche and Port Maitland). For those who want a bit more adventure, there are dozens available in northern Mexico!

— *Community & Environment* —

2016 PICK-ME-UP

BY KEN HARRISON

SATURDAY, APRIL 16 – A group of intrepid volunteers braved the cold, damp morning to pick up garbage on the Kent property at Exit 12 opposite the Irving Big Stop in New Minas.

This was the second annual Pick-Me-Up. Volunteers included county councillor Pauline Raven and the Town of Kentville chief administrative officer, Mark Phillips.

We can report that most of the Kent property was cleaner than in May 2015 when we collected 20 bags of garbage. This year we collected 13 bags. The shoulders of the New Minas Connector, Prospect Road, and around Exit 12 had the usual generous assortment of discarded coffee cups, plastic, and other debris.

This year the Annapolis Valley chapter of the Young Naturalists Club did a cleanup from the trailhead at the picnic ground on the Kentville Research Centre. They reported that they collected five bags of garbage and two bags for recycling. Most of the trash was made up of discarded Tim Hortons coffee cups and their plastic lids.

JIJUKTU'KWEJK WATERSHED ALLIANCE

BY SHELLEY PORTER, ALLIANCE MEMBER

The Jijuktu'kwejk Watershed Alliance (JWA) is a partnership of citizens and communities united by a vision for the Cornwallis River as a clean, ecologically sustainable watercourse restored to its historic significance and natural integrity. This particular group held its inaugural meeting in May 2016, but efforts to improve stewardship of the Cornwallis River and its watershed go back many years and have approached the issues from many perspectives. The JWA hopes to build on past research and management, informed by the work of the Clean Annapolis River Project, the Bras d'Or Lakes Environmental Planning Initiative, the Jijuktu'kwejk Project, the Friends of the Cornwallis River Society, and others. The membership includes scientists, Mi'kmaw elders and knowledge-holders, concerned local citizens, and other stakeholders. Membership is open to anyone who is interested in being involved.

So far the group has had two meetings, developed a strategic plan, created a website and Facebook page, and held a regatta of human-powered watercraft on the river. Regular meetings will be held approximately monthly, at various venues around the watershed.

The strategic plan (still in draft format) outlines the vision, objectives, and goals of the Alliance. The vision of a fishable, swimmable, clean river will seem an ambitious one to those, like me, who are familiar with it only in the past three decades or so. This river – narrow, muddy, and inconsistent in its trajectory – has been used as a drainage ditch, a convenient place to rinse out agricultural gear, and a sewage disposal line. Paradoxically, it has also been used as a water source for irrigation of crops or hydration of cattle. Clearly, it is high time the residents of the watershed decided what they want this river to be.

The stated objectives of the JWA take into account the human (starting with using the Mi'kmaw name for the river) and natural history of the river, yet they look forward to its role in the future.



PAULINE RAVEN

Nick Hill portaging over a log

Along with improving overall watershed health, the JWA will support and create strategies that protect life and minimize property damage that result from flooding and erosion. The latter objective considers the possible effects of climate change in the watershed. The JWA also aims to connect people with the river through outdoor experiences: a clean river with intact and safe banks will support use of the waters for recreation, active transportation, and citizen science. Finally, the JWA will maintain an organization with a focus on teamwork, development, engagement, and positive change.

The JWA is in the process of growing its membership and gathering knowledge, from both scientific research and local ecological knowledge-holders. The website includes downloadable copies of a number of government reports and scientific papers related to various aspects of the biology of the river, and a link to maps of the

watershed published through the Nova Scotia Watershed Assessment Program. The Facebook page includes notices of meetings and events, and links to other related sites and organizations. Also on the page are beautiful photos taken around the watershed by various photographers. I found Marke Slipp's panoramic views of oxbows and wetlands particularly engaging.

This is just a brief and detached summary of the work of this new and important initiative, by me as a keenly interested observer and new member of the group. The Jijuktu'kwejk made our valley a valley, and I am looking forward to both watching and helping as it is stewarded back to an ecologically healthy system that is highly valued by all watershed residents.

Useful links

The Jijuktu'kwejk Project: www.facebook.com/Jijuktukwejk/

The Jijuktu'kwejk Watershed Alliance: www.facebook.com/Jijuk-tukwejkWatershed/

JWA web site: <https://cornwallisriver.wordpress.com/>

— *Community & Environment* —

A DILEMMA IN ETHICAL ENERGY

BY KODY CROWELL

How do we measure significance in the natural world? Of the few thousand and some species currently under threat from our exploits, to whom do we give our attention, our priority? My answer: save what we must, but not more. Earth has persevered without humans for eons, and it will continue to do so once we're gone, assuming we don't deliberately take out all life in our arrogant desire to plunder its natural resources. Even then, I have faith in nature's durability: many micro-organisms have survived in more hostile environments than we could ever produce. Life will always find a way.

That aside, we must do what we can to preserve what is left. This includes developing new ways of harnessing energy sustainably.

Much effort and money has already been invested on this front. Indeed, as I write this, a multi-million dollar, 2 megawatt Open-Hydro turbine (16 metres in diameter) sits at the St. John docks, to be deployed in Minas Passage. If the process is successful, Nova Scotia will reap the benefits of hundreds of jobs created, thousands of homes with access to renewable energy, and, more importantly, a reduction of our dependence on coal. The project will also have the capacity to launch Canada onto the world stage of tidal power generation, an industry that is predicted to be worth billions of dollars within the next few decades.

This is assuming that the court rejects a recent bid by Nova Scotia fishermen to overturn the turbine installation approval. The Bay of Fundy Inshore Fishermen's Association states that the development of tidal energy in the Bay of Fundy could lead to its "decimation." Whether or not you believe such claims, the truth of the matter is that we are currently in an ecological crisis – one that we have created. Because of our lack of foresight, species have been eradicated, and many more are in great danger.

For instance, consider the Bay of Fundy Striped Bass (*Morone saxatilis*). The species has been designated as endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC); it has been extirpated in two of its once three spawning grounds (the only remaining one exists in the Shubenacadie-Stewiacke system). The species is known to spend a lot of time near the site at which the turbine is to be deployed. It is natural, then, that the Cape Sharp tidal project would garner the resistance of local fishermen, who claim that the conclusions of the Department of Fisheries and Oceans (DFO) regarding environmental impacts are "junk science." (Ironically, DFO and COSEWIC have previously concluded that the largest threat to Striped Bass in the Bay is unlicensed angling.)

If the approval is overturned, it could stunt the growth of tidal power production in Canada for decades. This would have devastating effects. We must ask ourselves why we seek tidal energy in the first place. It is not because it is currently the most economical; indeed, tidal energy is not even commercially viable. We do it because, with a bit of caution, it might help slow the damage we

have already caused to our province's ecosystem. Will tidal energy be responsible for the death of Striped Bass and other marine life in the Bay of Fundy? This is the question I have devoted my studies to. With all the tests and models, the only sure way of knowing is to put one in and watch. On the other hand, we still use coal, a dirty fuel known not only for its carbon dioxide and soot, but the harmful sulphur and nitrogen oxides, ash, and tons of waste produced that leak into our soil and water. It is responsible for many harmful environmental effects and, if we continue to rely on it, could lead to irreversible ecological damage. Surely, tidal energy can't be a worse resource than that.

So it is quite possible that we may find ourselves at an ethical crossroads in the near future: do we spare a dozen species at the cost of a few fish killed by a turbine each year? This situation is of course hypothetical, and certainly a false dichotomy. There are many options yet available to us if tidal power proves to be a failure. I don't think it will, though. To repeat my earlier sentiment: I have faith in nature's durability. Of the few tidal turbines already in the water in the UK and France, no collisions have been observed to date. Fish and other marine animals are smart. Smart enough, at least, to avoid turbines. You have to be if you are to survive the harsh and unforgiving ocean. So if we are, as a province, to be serious about our conservation efforts, let us give tidal energy a try. If it works with no damage to marine life, we'll have all kicked ourselves for not developing it earlier.

— *Natural History* —

BLOMIDON BOUND

BY ROY BISHOP

I took the photo accompanying this article from Evangeline Beach shortly after 9 a.m. on August 24, 2016. It shows two White-tailed Deer on the tidal flats north of the Guzzle at the east end of Long Island, North Grand Pré. The deer were about 2 km from my camera.



ROY BISHOP

The water in the background is the Minas Basin near the mouth of the Avon River. The headland in the distance is near Cambridge on the Walton shore, some 18 km east-northeast of my camera.

The deer, a female in the lead and a male (with antlers) following, had apparently left the end of Long Island at the Guzzle and were walking northward. Pausing occasionally to look around, the deer otherwise proceeded steadily northward toward the receding tideline. High tide was near 6 a.m., so the outgoing tidal currents were strong.

Upon reaching the tideline the deer paused a few times to smell the water, but other than that they kept to their northward journey. Over the next several minutes I watched in binoculars (15x, tripod-mounted) as the water level progressed from their feet to the top of their backs, and the deer were now obviously swimming. Still they headed northward, across Minas Basin toward Blomidon, the female

in the lead and the male nearby, with the outgoing tidal current hastening their progress out into the basin.

An hour later, in my binoculars, I began to lose sight of the two heads, now well out in Minas Basin and still on a course for Cape Blomidon. Anyone with binoculars who now happened to spot the two specks would pass them off as a couple of ducks or cormorants floating on the water.

I did not realize that White-tailed Deer are such strong swimmers, or that they would undertake such a marathon, 13-km swim. I hope they made it to Blomidon.

— *Natural History* —

**WOODS, WATER AND SKY:
WRITINGS BY ROBIE TUFTS**

BY RACHEL COOPER

Robie Wilfred Tufts (1884–1982), of Wolfville, was Chief Migratory Birds Protection Officer for the Maritime provinces from 1919 to 1947. He was also founding president of the Nova Scotia Bird Society and author of the highly regarded *Birds of Nova Scotia*, first published in 1961. He held honorary degrees from Acadia and Dalhousie universities, and his papers are housed in Acadia University’s archives.

From the early 1940s to the 1970s, Robie Tufts wrote a regular column, “Woods, Water and Sky,” for the *Chronicle Herald*. A scrapbook of those columns (undated) was put together by Lloyd Duncanson, who joined the staff of the Nova Scotia Museum of Science in 1950 and later became its curator, and by Eric Dodge of Middleton, a young amateur ornithologist who died in 1955 at the age of 25. The scrapbook – now in the care of Mark Elderkin, Species at Risk Biologist, Wildlife Division, at the Nova Scotia Department of Natural Resources – is destined for the Acadia archives, but BNS has been given the opportunity to publish a sampling of Robie’s columns.

This is the fifth in the sampling, believed to be from around 1946 (exact date unknown). It’s a small tale of a resourceful bird helping a companion:



On windy days, swallows are often hard put to find enough insects in the air for themselves and their ravenous young. At such times it is usual to see them skimming gracefully over the surface of lake or river and, with head and beak pointed downward, daintily pick from the water some half-drowned insect.

Comes to rescue

Recently Douglas Lohnes of Milton was fishing for salmon on the Lake Pool at Greenfield (Queens County). The wind was blowing hard, and a number of swallows were flying back and forth, which he noticed casually as he cast over the pool. Suddenly, one of the birds intent on seizing its prey made a serious miscalculation. As it dipped for the insect it collided full tilt with a small wavelet, with the result that its plumage – not oily like ducks – became drenched and sodden.

With wings outstretched it tried again and again to take off, but with its strength rapidly waning its efforts were in vain. About this time Mr. Lohnes was thinking about devising ways and means of rendering much needed assistance when, to his delight and amazement, he saw another swallow (its mate?) come to the rescue. For a moment or two it hovered above the stricken one, then began dipping downward as though trying to grasp it in its bill. After three attempts it was successful in seizing the bird, apparently by the head, and with its feeble efforts added was thus able to exert enough lifting power to enable the half-drowned bird to take off once more. When last seen, it was fluttering shoreward as though trying to dislodge some of the excess moisture from its feathers.

FIELD GUIDE: WILDFLOWERS OF NOVA SCOTIA

REVIEWED BY MELANIE PRIESNITZ

If you are one of those people who like to know the names of plants as you walk by them in the woods, you are well acquainted with field guides. There are a myriad of guides to choose from, but some of them require a botany degree to understand their complicated keys. My new favourite simple guide is Boulder Publications' *Wildflowers of Nova Scotia*, by Todd Boland.

The thing that really sets this book apart from other guides is the full-colour photographs. It's a resource for herbaceous plants of Nova Scotia, both native and introduced. The guide is laid out by flower colour and contains simple explanations of plant identifica-



Jasmine in the garden with Wildflowers

tion and botanical keys, so you don't need to be a botanist to navigate it. If you want to get to know the trees of the woods, Boland's *Trees & Shrubs of the Maritimes* is also a great choice. If you're travelling this season you may also be interested in Boland's *Trees and Shrubs of Newfoundland and Labrador* or his latest, *Wildflowers of New Brunswick*.

The Harriet Irving Botanical Gardens will be hosting a book signing and talk on gardening with native plants with author Todd Boland on the evening of September 19. Boland is from St. John's, where he is the research horticulturist at the Memorial University of Newfoundland Botanical Garden. We're excited to be working with Boulder Publications to bring him to Acadia.

Todd will be especially interested in signing well-loved copies of his book this fall, so grab a copy and get outside and get acquainted with the flora of the Acadian Forest. Two of the features that I enjoy most about the Boulder Publications guides is that they are printed on thick paper that doesn't mind getting dirty or wet, and they never run out of batteries while I'm in the field!

For full event details, see our website: <http://botanicalgardens.acadiau.ca/event-reader/gardening-with-native-plants.html>.

— Nature Counts —

2016 MIGRATION BIRD COUNT – EASTERN ANNAPOLIS VALLEY

BY LARRY BOGAN

MAY 14, 2016 – Every year, on the second Saturday of May, the Nova Scotia Bird Count takes place to determine the number of birds and species in Nova Scotia during the migration period. The data are compiled by the Nova Scotia Bird Society. For more information see the links below.

The day started out with low overcast and fog after rain overnight, temperature 10°C. Late in the morning there was rain, heavy for a short time. It began to clear at noon, and by mid-afternoon it was clear and 20°.

There were 19 field persons in 16 parties in the field (over the period 5:30 a.m. to 8:00 p.m.). They spent 56 hours walking and biking over 107 km, 16.4 hours driving over 285 km.

There were 8 feeder watchers for 19 total hours.

In the field, the surveyors found 102 species (4,829 individual birds). Feeder watchers observed 39 species (561 individuals). In total, 104 unique species were reported.

Species	Regular	Feeder	Total
Canada Goose	120	0	120
Wood Duck	4	0	4
American Black Duck	72	0	72
Mallard	194	0	194
Northern Shoveler	18	0	18
Green-winged Teal	2	0	2
Ring-necked Duck	9	0	9
Common Eider	4	0	4
Black Scoter	12	0	12
Red-breasted Merganser	1	0	1
Ring-necked Pheasant	116	13	129
Ruffed Grouse	7	0	7
Common Loon	1	0	1
Double-crested Cormorant	3	0	3
Great Blue Heron	2	0	2
Bald Eagle	34	0	34
Northern Harrier	2	0	2
Sharp-shinned Hawk	0	1	1
Red-tailed Hawk	13	0	13
Merlin	4	0	4
Peregrine Falcon	1	0	1
Sandhill Crane	3	0	3
Killdeer	8	0	8
Spotted Sandpiper	1	0	1
Willet	4	0	4

Species	Regular	Feeder	Total
Wilson's Snipe	2	0	2
Herring Gull	153	0	153
Great Black-backed Gull	76	0	76
Black-legged Kittiwake	3	0	3
Black Guillemot	2	0	2
Rock Pigeon	52	0	52
Mourning Dove	111	25	136
Barred Owl	8	1	9
Chimney Swift	18	8	26
Ruby-throated Hummingbird	2	3	5
Belted Kingfisher	9	0	9
Yellow-bellied Sapsucker	33	0	33
Downy Woodpecker	44	27	71
Hairy Woodpecker	15	9	24
Northern Flicker	73	11	84
Pileated Woodpecker	11	0	11
Eastern Wood-Pewee	1	0	1
Least Flycatcher	11	0	11
Eastern Pheobe	4	0	4
Eastern Kingbird	4	0	4
Northern Shrike	1	0	1
Blue-headed Vireo	50	2	52
Red-eyed Vireo	1	0	1
Blue Jay	136	25	161
American Crow	299	26	325
Common Raven	72	2	74
Tree Swallow	52	2	54
Northern Rough-winged Swallow	11	0	11
Bank Swallow	14	0	14
Barn Swallow	28	0	28
Black-capped Chickadee	190	44	234
Boreal Chickadee	7	0	7
Red-breasted Nuthatch	21	4	25

Species	Regular	Feeder	Total
White-breasted Nuthatch	6	13	19
Winter Wren	2	0	2
Golden-crowned Kinglet	3	0	3
Ruby-crowned Kinglet	4	0	4
Hermit Thrush	13	0	13
American Robin	279	12	291
Grey Catbird	4	0	4
European Starling	387	34	421
Cedar Waxwing	51	0	51
Nashville Warbler	1	0	1
Northern Parula	53	0	53
Yellow Warbler	87	1	88
Chestnut-sided Warbler	21	0	21
Magnolia Warbler	14	0	14
Black-throated Blue Warbler	6	0	6
Yellow-rumped Warbler	112	1	113
Black-throated Green Warbler	56	1	57
Blackburnian Warbler	1	0	1
Palm Warbler	4	0	4
Blackpoll Warbler	1	0	1
Black-and-White Warbler	37	2	39
American Redstart	12	0	12
Ovenbird	171	2	173
Northern Waterthrush	2	0	2
Common Yellowthroat	4	0	4
Wilson's Warbler	1	0	1
Chipping Sparrow	43	10	53
Savannah Sparrow	28	1	29
Song Sparrow	302	17	319
Swamp Sparrow	3	0	3
White-throated Sparrow	46	5	51
Dark-eyed Junco	20	3	23
Northern Cardinal	30	21	51

Species	Regular	Feeder	Total
Rose-breasted Grosbeak	20	7	27
Bobolink	2	0	2
Red-winged Blackbird	245	16	261
Rusty Blackbird	3	0	3
Common Grackle	168	19	187
Brown-headed Cowbird	0	4	4
Baltimore Oriole	1	0	1
Purple Finch	46	27	73
White-winged Crossbill	5	0	5
Pine Siskin	16	13	29
American Goldfinch	359	139	498
Evening Grosbeak	5	2	7
House Sparrow	6	8	14
Total birds	4,829	561	5,390
Number of species	102	39	104

Links to more information on the NSMC

blomidonnaturalists.ca/christmas-bird-counts-and-migratory-counts/nova-scotia-migration-count-kings-county-n-s/
www.nsbirdsociety.ca/index.php/volunteer/ns-migration-count

— *Club Notes & Notices* —

2016 NATURE NOVA SCOTIA AGM AND CONFERENCE

BY PATRICK KELLY

WOLFVILLE, MAY 27–29, 2016 – Each year, the Federation of Nova Scotia Naturalists (Nature Nova Scotia) holds its annual general meeting. In the past, when there were more naturalist groups in the

province, the AGM would be hosted by one of these groups. As the number declined, the organization of the AGM was left to several members of the Nature Nova Scotia board. For 2016, I thought it would be good to give them a break and proposed that the Blomidon Naturalists Society host the event and that we hold it at Acadia University.

The theme was Biodiversity and the Anthropocene. While we were a bit late getting going, the results were definitely worth the effort. As has also been the custom for the last number of years, the Young Naturalists Clubs have met with us and joined us for some events while also having events on their own. One was a Saturday morning trip to the Wolfville harbour to explore the mud flats, and they must have had fun, as when we arrived at Wheelock Hall for lunch there was a row of children's rain boots, covered in mud, lined up outside the building.

Counting the young naturalists, we had just over 60 registrants. The first chance to meet was Friday night for a wine and cheese event in the Garden Room at the KC Irving Environmental Science Centre. Winning entries from the recent Nova Scotia Youth Nature Art and Writing Contest were on display. People signed up for the Saturday and Sunday field trips, many finding it hard to decide which to attend. There was no stargazing that night, as it was overcast.

Saturday began with an early bird walk in Acadia Woodland trails above the Centre. Highlights were a Pileated Woodpecker and a great view of a singing Ovenbird. After breakfast we had two talks in the auditorium of the Centre: "Is the History of Humankind Climate-Controlled?" by Dr Rob Raeside of Acadia, and "Nova Scotia Forests of the Anthropocene," by Donna Crossland of Parks Canada. Both were well attended and well received.

After lunch it was time for the field trips:

- Fairy Shrimp and Pond Life (Jim Wolford): This is an annual trip to Blomidon Provincial Park to look for fairy shrimp in one of the ponds.

- Wolfville Watershed (Rick Whitman): The watershed's natural features include undisturbed wetlands containing rare orchids and an old-growth hemlock stand.
- Lichens (Frances Anderson): As a follow up to her BNS talk on lichens, this trip went to Lumsden Pond Provincial Park to look for lichens.

Rather than having our own banquet on Saturday we piggybacked on Farmworks' May Flavours event that was being held in Wheelock Dining Hall. There were several hundred people there, and it included both a silent auction and a short auction with a real auctioneer (I still don't know how they learn to speak so quickly).

At dusk we went down to the Robie Tufts Nature Centre, where Ally Manthorne, who coordinates the Maritimes SwiftWatch program, was set up with information about Chimney Swifts. For many, it was their first time to see swifts entering a chimney. The total was about 100 birds, most of which dived in over a five-minute period.

It was relatively clear that evening, but because it did not get dark until late, there were only a few people for stargazing. Sherman Williams, Larry Bogan, and I were able to show them Jupiter, Mars, and Saturn through telescopes and point out constellations. And we watched a pass of the International Space Station that took it almost directly overhead.

The Sunday morning bird walk had a lot fewer birds than the previous morning, despite the nice weather, although it did allow at least one person their first chance to see a cardinal. Hearing Northern Cardinals is never an issue, but spotting them is something else.

Our morning presentation was "Animal Health and Wildlife Conservation in the 21st Century," by Dr. Ted Leighton, who is professor emeritus at the University of Saskatchewan and is involved with the Canadian Wildlife Health Cooperative. Again, the presentation was enjoyed by those in attendance. The latter part of the morning was spent on the AGM itself. Reports were received from all of the member clubs.

The last events for the conference were the Sunday afternoon field trips:

- Miner's Marsh (Patrick Kelly): A chance for many to discover this hidden jewel to discover it.
- Old-Growth Forest (George Forsyth): A visit to the Neary Pines, next to Noggins Corner Farm.
- Restoring Agricultural Land to Acadian Forest – An Experiment? (George Alliston): A visit to a property in the Gaspereau Valley that has had 15 years of Acadian Forest restoration.
- Environmental Science Centre Labs, Greenhouses and Gardens (Jean Timpa and Dr. David N. Kristie): A chance to learn about what goes on in the Centre.

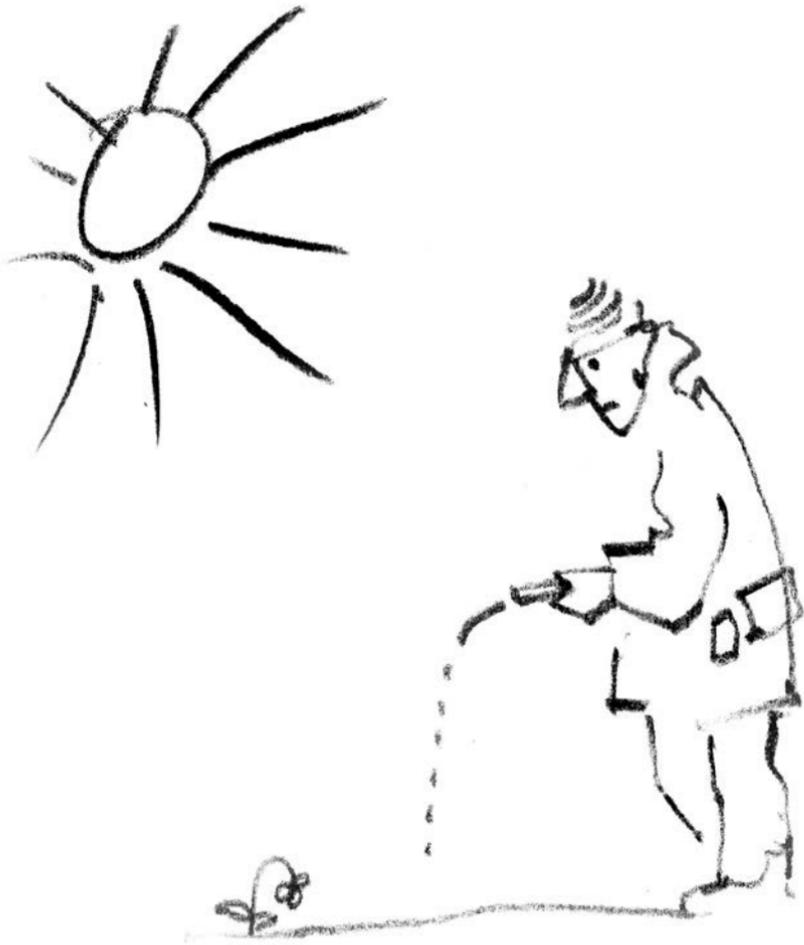
I would like to thank a few people, in addition to those already mentioned. Jeannie Gibson Collins handled the registrations, as she does every year. She was assisted on the registration desk by Jean Timpa, who also recruited two Irving Scholar students, Sarah Stewart and April Muirhead, to assist with registration. Doug Linzey put all the information on the Nature Nova Scotia website. I would also like to thank the BNS board for coming up with the theme and for sponsoring the event. It would have been far too costly to host the event at Acadia, but as it was a BNS event, facilities fees were waived.

I think the best way to know how well we did was by listening to people from outside BNS. They had a great time. A few days after the event, Nature Nova Scotia President Bob Bancroft forwarded a letter to Jeannie and me that had been sent to him by one of the participants. It reads in part:

I must say I thought that was one of the best NNS meetings I have ever been too. First class academic presentations and from my point of view the field trips were also great. The last one in particular, which only four of us attended, was very enlightening to me. It was to a piece of "new" Acadian forest planted 12 years ago under the aegis of the NS Nature Trust. The group leader was George Alliston. It is just across the road from the Gaspereau Winery. It demonstrates

how relatively easy it would have been, and I presume still could be, in lots of places in NS to get an “Acadian-style” forest thriving again, rather than the monoculture pulp wood farms we have instead.

The site for next year’s AGM is not yet known, but if you enjoy nature, you really should make plans to attend.



BRIAN MCKIBBIN

**SPRING & SUMMER WEATHER 2016,
EASTERN ANNAPOLIS VALLEY**

LARRY BOGAN, CAMBRIDGE STATION

	TEMPERATURE			PRECIPITATION
	Max (°C)	Min (°C)	Mean (°C)	Total (mm)
MARCH 2016 (30 yr. average)	4.3 (3.4)	-5.2 (-5.3)	0.5 (-1.0)	90 (67)
APRIL 2016 (30 yr. average)	10.0 (9.9)	-0.8 (0.6)	4.6 (5.3)	66 (74)
MAY 2016 (30 yr. average)	16.6 (16.4)	5.9 (5.6)	11.3 (11.0)	85 (97)
SEASON (30 yr. average)	10.3 (9.9)	0.0 (0.3)	5.1 (5.1)	241 (238)
JUNE 2016 (30 yr. average)	21.8 (21.5)	10.0 (10.4)	15.9 (16.0)	15 (82)
JULY 2016 (30 yr. average)	25.8 (24.9)	15.0 (14.0)	20.4 (19.5)	101 (84)
AUGUST 2016 (30 yr. average)	25.3 (24.3)	14.1 (13.6)	19.8 (19.0)	57 (77)
SEASON (30 yr. average)	24.3 (23.6)	13.1 (12.9)	18.7 (18.2)	187 (242)

Source: Environment Canada data for Kentville, NS (<http://weatheroffice.gc.ca>).
30-yr. averages: 1981–2011.

Spring arrived just about on time this year and was normal. Both the mean temperature and total precipitation for the period were

the same as the 30-year average. The summer was warmer and drier than average.

Temperature

Spring: Even during the season the monthly variations from an average spring were not very large. March was half a degree warmer, April was 0.7°C cooler and May was 0.3° warmer. The minimum for March was normal but the maximums averaged higher because of a wetter and cloudier month. Just the opposite occurred in April, when we had many nice sunny, clear days with clear, cold nights, and that gave an average minimum over 1° colder than the average, but the mean maximum was about normal.

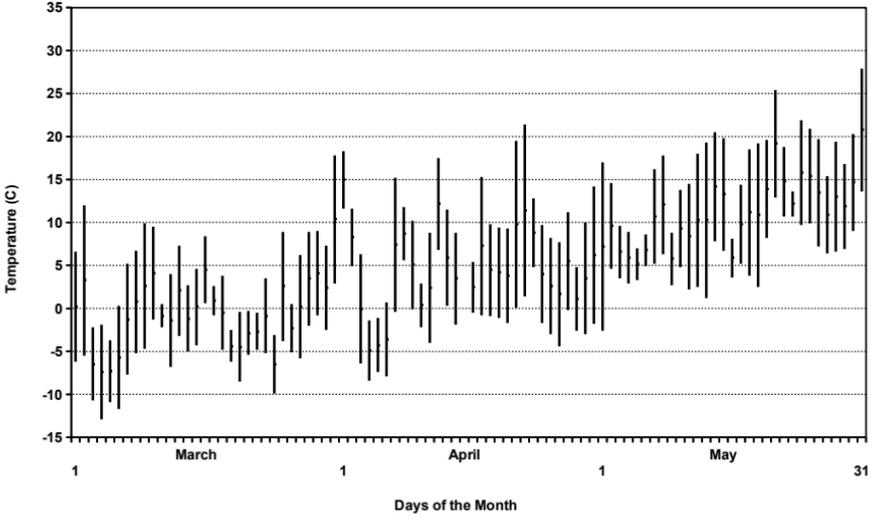
Summer: Examining the chart of daily temperatures for the summer, note how uniformly warm it was during the summer. After the first half of June the temperatures were between 15° and 30° for the rest of the summer. Early June was chilly, with an average temperature of only 13° for 18 days, but then the temperature rose quickly. The only variation was a six-day period in early July when the average temperature was in the mid-teens. June's average temperature was normal, but both July and August's were higher. The extreme maximum temperature for each month was about 30.6° . Overall, the summer season was 0.5° above the 30-year normal temperature.

Precipitation

Spring: March was the wet month of the season, with a third more rain than normal. There were only six days in March with no precipitation. Both April and May had below-normal rainfall by about 10 percent. The net result is that although the season had a near normal precipitation, it was dry for the latter two-thirds, and now entering into summer we are a bit shy of moisture. Except for the latter half of April there were many days with precipitation but none of it very heavy. All season, only four days had more than 10 mm rainfall.

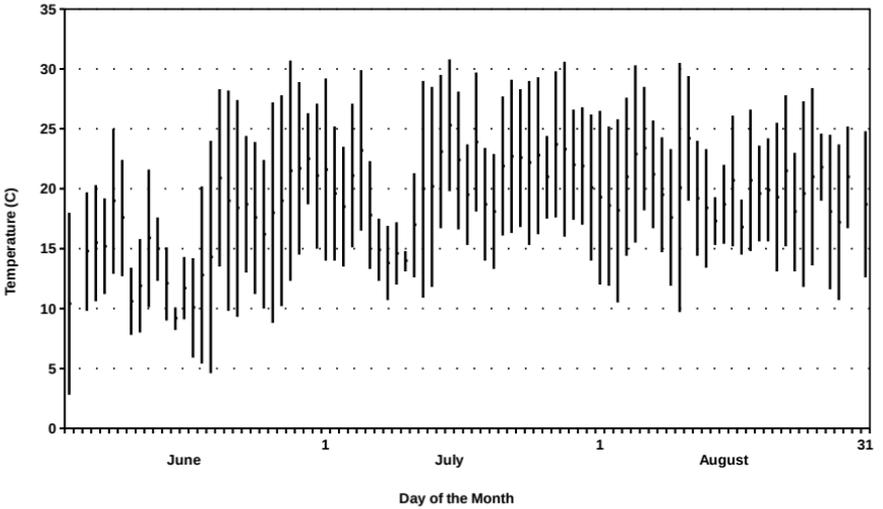
Daily Temperatures, Kentville, N.S.

March, April, May, 2016



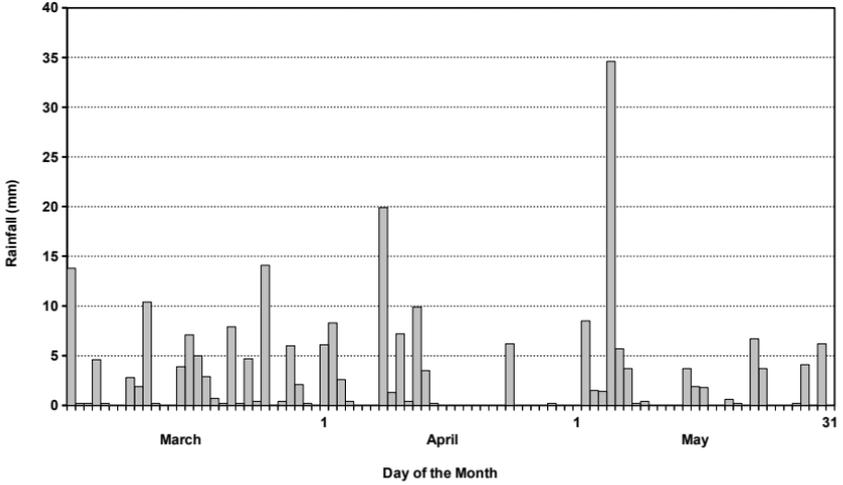
Daily Temperature - Kentville, NS

June, July, August 2016



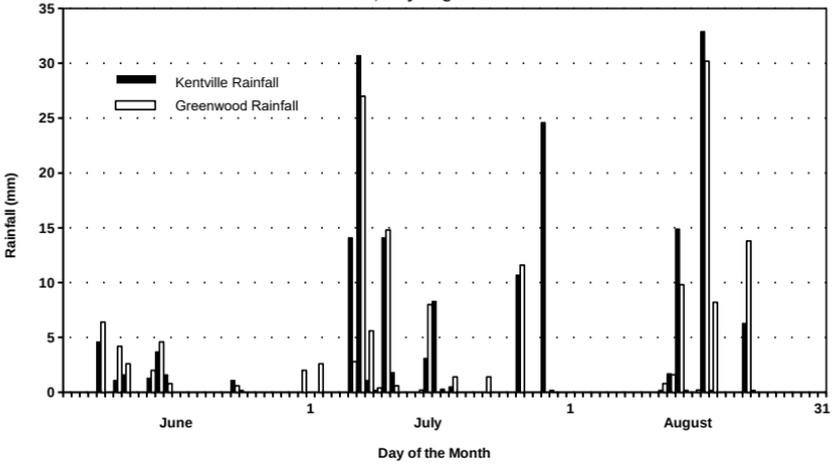
Daily Precipitation, Kentville, N.S.

March, April, May 2016



Daily Rainfall - Kentville, NS

June, July August 2016



Summer: The Valley was not as dry as I had expected. The chart of daily rainfall shows a healthy number of rain days, although more than half of them had rainfall of less than 5 mm. The rainfall was spotty geographically; a last rainfall of 25 mm in July only occurred in Kentville, but not in Greenwood, and as a result the rainfall in Greenwood for that month is noticeably smaller. June was the driest month of the summer, during which Kentville received only one-fifth of a normal June rainfall. Kentville received three-quarters of its normal rainfall for the summer, while Greenwood got only two-thirds of the average.



RICK WHITMAN

Black-backed Woodpecker female

WHAT'S IN THE SKY?

BY ROY BISHOP

Highlights for September through December 2016

SEPTEMBER 1: New Moon
SEPTEMBER 2: Neptune at opposition
SEPTEMBER 16: Full Moon
SEPTEMBER 17–20: Large tides
SEPTEMBER 22: Equinox (11:21 a.m. ADT)
SEPTEMBER 30: New Moon

OCTOBER 15: Uranus at opposition
OCTOBER 16: Full Moon at close perigee
OCTOBER 16–19: Large tides
OCTOBER 30: New Moon

NOVEMBER 6: Daylight Saving Time ends
NOVEMBER 14: Largest Full Moon in 2016, at close perigee
NOVEMBER 14–17: Large tides
NOVEMBER 29: New Moon

DECEMBER 13: Geminid Meteor Shower
DECEMBER 13: Full Moon at close perigee
DECEMBER 13–16: Large tides
DECEMBER 21: Solstice (06:44 a.m. AST)
DECEMBER 29: New Moon

Where are the planets this autumn? – Mercury is well-placed in the dawn twilight during the last ten days of September and the first half of October, becoming brighter as the days pass. It passes behind the Sun on October 27 and reappears in the evening twilight during the last half of November and the first half of December.

Venus passed behind the Sun in June and shines brightly in the southwestern evening twilight during the last four months of 2016, becoming easier to see as the weeks go by. During the last week of October, Venus, Saturn, and the star Antares form a changing pattern in the southwest evening twilight. In the evening twilight of November 2, Venus, Saturn, and the crescent Moon form an attractive group in the southwestern sky (look about 7 p.m.). In the evening twilight of December 2 and December 3, the crescent Moon is about 8 degrees from Venus (look between 5:30 and 7 p.m.).

Mars was at opposition last May and slowly fades in brightness during the rest of the year as Earth in its faster orbit leaves Mars behind. Mars is low in the southwestern early evening sky. Its eastward motion against the background stars is obvious as the days pass.

Jupiter passes behind the Sun on September 26 and reappears low in the dawn twilight late in October. By December, Jupiter is high in the southern sky near sunrise.

Saturn is low in the southwestern evening sky and vanishes into the evening twilight in November. Saturn passes behind the Sun on December 10.

Uranus and Neptune are well-placed in the night sky this autumn, although a finder chart is essential to locate them, and binoculars or a telescope is needed to see them. Neptune was at opposition on September 2, and Uranus is at opposition on October 15.

What's with all the large tides this autumn? – In the list of highlights at the beginning of this article, you will note that “large tides” are mentioned for each of the last four months of the year. Although not quite as large as the extreme tides of September 29, 2015, and April 9, 2016, the tides for a few days in each of the last four months of 2016 nevertheless deserve special mention.

The main reason for the repetitive large tides is that for each of the last four months of 2016, Full Moon and the lunar perigee occur within two days of one another. Thus, the solar tide is nearly in step with the lunar tide, resulting in “spring” tides, and the lunar tide

is larger than normal because the Moon in its elliptical orbit is at its nearest point to Earth (perigee), resulting in “perigean” tides. Hence, “perigean-spring” tides. Another influence that adds to the tide range this autumn is the 18.61-year wobble cycle of the Moon’s orbital plane. The tilt of the plane of the lunar orbit to Earth’s equatorial plane was at a minimum early in October 2015, a geometry favourable for extra-large tides. We are only a year after the peak of that long-period cycle, so it too contributes to the large tides this autumn.

November’s Full Moon – In November the time of Full Moon and the time of perigee differ by only three hours, resulting in the smallest perigee distance in more than 30 years, and hence the largest-appearing Full Moon in more than 30 years, although only by a tiny amount. That special Full Moon occurs on the night of November 13/14.

— *Poem* —

THE BUTTERFLY

BY HANNAH WILLIAMS (AGE 11)

The sweet scent of the late blossoms
And the toss and turn of waves in the salty air. The beauty of summer
is grated from the peel. Fresh, sweet and tangy.
But the most wonderful thing of all is the suns gleaming light shining
onto her fluttering wings gracefully dancing in the breeze.
White, blue, orange and yellow, her vibrant colours beaming.
Who am I, sweet mist of summer?
Nothing but the butterfly.

SOURCES OF LOCAL NATURAL HISTORY

Compiled by the Blomidon Naturalists Society

Amphibians & Reptiles	Sherman Bleakney	H: 902-542-3604	
	Jim Wolford	H: 902-542-9204	
Astronomy	Roy Bishop	H: 902-542-3992	
	Sherman Williams	H: 902-542-5104	
	Larry Bogan	H: 902-678-0446	
Birds – General	Bernard Forsythe	H: 902-542-2427	
	Richard Stern	O: 902-678-4742	H: 902-678-1975
	Gordon & Judy Tufts	H: 902-542-7800	
	Jim Wolford	H: 902-542-9204	
	Jean Timpa	H: 902-542-5678	
Butterflies & Moths	Jean Timpa	H: 902-542-5678	
Fish & Wildlife	NS Department of Natural Resources	O: 902-679-6091	
Flora	Ruth Newell	O: 902-585-1355	H: 902-542-2095
Fungi	Nancy Nickerson	H: 902-542-9332	
Hawks & Owls	Bernard Forsythe	H: 902-542-2427	
Indian Prehistory & Archeology	James Legge	H: 902-542-3530	
Mosses & Ferns	Ruth Newell	O: 902-585-1355	H: 902-542-2095
Mammals	TBA		
Rocks & Fossils	Geology Dept., Acadia University	O: 902-585-2201	
Seashore & Marine Life	Sherman Bleakney	H: 902-542-3604	
	Jim Wolford	H: 902-542-9204	

BLOMIDON NATURALISTS SOCIETY 2016 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 _____

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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	\$30.00	\$ _____
_____	Junior (under 16 years) Membership	\$1.00	\$ _____
_____	Nature Nova Scotia Membership	\$5.00	\$ _____
_____	2016 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.



