

Blomidon Naturalists Society



WINTER 2012 NEWSLETTER

Volume 39 · Number 4



Mud Lake Bog in winter - RICK WHITMAN



❖ 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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THE BLOMIDON NATURALISTS SOCIETY

P.O. BOX 2350

WOLFVILLE, NS B4P 2N5

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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Digital photographs should be submitted to
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**Submission deadline for Spring:
February 28, 2013**

Out & About

by Jean Timpa, editor

ANOTHER year has slipped by in our own lives and in the collective life of the Blomidon Naturalists Society. Fun and informative year-round field trips and 10 months of intriguing talks, four issues of the BNS Newsletter, and our annual calendar (with its daily tides and local historical and natural history facts) have kept us in a busy cohesive mood. Best of all though is the Green Dragon program to help educate young people about the great outdoors. Another very special announcement will be made in 2013 which will establish another very appropriate legacy in this area in the name of the Blomidon Naturalists Society.

The BNS board wishes to thank all of you for even the littlest of things you have done to make this all possible. You know who you are – everybody – so lots of pats on all the backs for work well done. We will especially miss John Belbin and Patrick Kelly, who have decided to retire this year and leave big boots to fill. However, at least one young brave soul has volunteered to stand as a member of the board, a great addition to the grey-haired elders who need modernizing once in awhile.

New ideas for programs, field trips, types of articles, issues that should be addressed (we have a special committee just for such things) can be forwarded to any of our board members as listed here in the front of the Newsletter. Various committees can always use assistance; there are jobs for the asking. Remuneration is BNS friendship.

Natural History Calendars Archived

by Roy Bishop

Two complete sets of the Blomidon Naturalists Society annual Natural History Calendar, each consisting of 16 editions covering the years 1998 through 2013, have been deposited in the Acadia University Archives in Wolfville and in the Nova Scotia Archives in Halifax. An explanatory sheet accompanies the sets, three paragraphs from which follow:

The primary purpose of the calendars is to raise funds to support the educational activities of the society. Also, the calendars themselves help to promote knowledge of natural history in Nova Scotia. Local photographers donate their images for use in the calendar, and the calendar committee that creates the annual calendar is composed of volunteers. Special acknowledgement is due to the late Dr. Merritt Gibson, who chaired the calendar committee during the first 14 editions. The society is also indebted to a few sponsors (listed in the calendars) whose support enhances the financial success of the calendar.

Nearly all the photographs (208 in these 16 editions) were taken in Nova Scotia. In addition to being a record of local scenes, the monthly calendar pages contain descriptive paragraphs about each photograph, many historical notes of local and scientific interest, suggestions for field trips, astronomical highlights for the year, daily high-tide times and tide ranges for Minas Basin, and brief biographical information on some Nova Scotia naturalists, with an emphasis on the eastern Annapolis Valley area.

These first 16 editions provide a unique and valuable record of natural history in Nova Scotia around the beginning of the 21st century, and they merit preservation.

Board of Directors Report

By John Owen, BNS president

YOUR board had a regular meeting on November 22, 2012. The following is a summary of the meeting and discussions.

Annual General Meeting – The AGM will occur this year during the December 10, 2012, meeting. Changing the AGM from November to December fits with the bylaws, and the new board will function essentially throughout the calendar year. Two former board members are not re-offering. The slate is ready for presentation and includes one new member. Nominations will also be accepted from the floor.

Expansion of Green Dragon Program – At a special board meeting on Oct 22, the consensus was that BNS should proceed with the expanded program for next year. This will result in employing two students from May to August with an employment contract of at least 14 weeks, increasing the Green Dragon Program duration from the current 8 weeks to 10 weeks, with 2 weeks for local schools and the normal 8-week program for the remainder of the summer. The extra time this year will be to communicate with the schools to determine program requirements. Our initial contact with the school board resulted in a level of interest in a combined project. It is hoped that in the future the entire program could potentially be extended to 14 weeks.

BNS Stewardship Committee – There continue to be specific issues at various sites, and individual members are trying to deal with these. There is now a simple sign at the top of the steps going down to the

beach: three brief, bulleted items about why the beachgoers (including pets) need to be careful. The stewardship group is basically “taking the winter off.” All committee members have been active in somewhat different ways and have agreed to work together again, beginning next spring.

Combined meeting with Valley Gardeners – The Valley Gardeners are interested in invasive species, and they wondered whether BNS would be interested in holding a combined meeting during the third Monday in October, a date when the two monthly meetings overlap. Such a combined meeting might take the form of a panel discussion (held either at the Kingstec campus or in a suitable auditorium-type setting at Acadia), and there could be a follow-up field trip the following weekend (a good time of year for Glossy Buckthorn). Board members agreed that this was a good idea and will follow up with the Valley Gardeners.

The next BNS board meeting is scheduled Thursday, February 21, 2013.

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, December 10, 2012 – *Tracking Nova Scotia's Most Elusive Shrews*, by Dr. Donald Stewart. I will talk a bit about the diversity and natural history of shrews in the province – what species we have, where they live, and some (hopefully) interesting aspects of their biology. I will talk a bit about how we identify and name species of mammals and how some of my molecular analyses have been used to revise the taxonomy of shrews in Atlantic Canada. I will finish off the talk by talking about a new community-based initiative to study habitat preferences of some of our rare species by collecting shrew poop and using molecular techniques to identify what species are where in the province.

Dr. Stewart did his undergraduate degree at Acadia and studied the feeding behaviour of shrews on Bon Portage Island. He then went on to study molecular systematics and molecular evolution in shrews at the University of Toronto and the Royal Ontario Museum. For his post-doctoral research, he switched to studying molecular genetics of mussels at Dalhousie University. As a professor at Acadia, he has continued to study molecular evolution and molecular systematics in shrews and mussels (and a few other species along the way).

Monday, January 21, 2013 – *The Science of Bird Migration – Uncovering New Secrets of Migration Using Radar and Telemetry*. Dr. Phil Taylor is the Bird Studies Canada chair at the Acadia University biology department.

Monday, February 18, 2013 – *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 Patrick Kelly (472-2322, patrick.kelly@dal.ca).

Monday, March 18, 2013 – *The Big Eclipse Gamble*, by Mary Lou Whitehorne. The path of a total solar eclipse is narrow and sweeps rapidly across Earth's surface. Almost three-quarters of Earth is cov-

ered with ocean and opportunity is therefore limited, so it is a rare privilege to stand in the shadow of the moon. On a scale of one to ten, most amateur astronomers will rate the majestic spectacle of a total solar eclipse at one thousand! The 2012 November eclipse made its only landfall across the tropical northeast of Australia, near the Great Barrier Reef. The appeal was impossible to resist, in spite of less than stellar weather prospects at the beginning of the local monsoon season. This is an account of the eclipse chase and all of its collateral adventures.

Mary Lou Whitehorne joined the Royal Astronomical Society of Canada in 1986 and is a life member of the Society. She served many years on the Halifax Centre executive, including three terms as president. Nationally, she has served six years on the national executive, the last two as president. She has written for, contributed to, edited, authored, or been involved in the production of all of the Society's publications. She is the recipient of the Chant Medal, Simon Newcomb Award, the Messier and Finest NGC Certificates, and the Las Cumbres Amateur Outreach Award. Minor planet 144907 Whitehorne carries her name in recognition of her contribution to educational outreach in Canada. Mary Lou has been involved in science education for 25 years. As well as working with schools, she has done space science education with the Canadian Space Agency and Canada's astronauts. She wrote *Skyways Astronomy Handbook for Teachers and Explorons l'astronomie – Guide pédeagogique*. She has recently worked on innovative educational products with Simulation Curriculum Corporation and is lead author of *Starry Night Middle School*, *Starry Night High School*, and *Starry Night Elementary*. Her most recent role has been astronomy consultant to the National Film Board for its upcoming Space School project.

Monday, April 15, 2013 – Topic to be announced.

Monday, May 20, 2013 – *Arctic Plants*, by Carolyn Mallory.

Monday, June 17, 2013 – *Is It Hot Enough for You? Facts and Lore*

about Weather in Canada, by Dr. Rob Raeside. Dr. Raeside is the head of the Department of Earth and Environmental Science at Acadia University. He has a BSc, University of Aberdeen (1976); MSc, Queens University (1978); and PhD, University of Calgary (1982). One of the courses he teaches at Acadia – Atmosphere, Weather, and Climate – investigates the composition, structure, and dynamics of the atmosphere; weather, climate, and biogeographic patterns; microclimatology; paleoclimates, paleogeography, and extinctions; human effect on air quality; and climate change.

FIELD TRIPS AND OTHER NATURE EVENTS

Friday, December 21, 2012 – *Winter Solstice Family Frolic*. We invite everyone to welcome the winter season and continue the 5000-year tradition of celebrating the return of the Sun after the longest night of the year. We will meet around a roaring bonfire at Noggin'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.

Saturday, December 22, 2012 – *Kingston Christmas Bird Count*. Wayne Neily (765-2455, neilyornis@hotmail.com) will be compiling the count again this year. All are welcome to participate, but please contact the compiler as soon as possible so you can be included in the planning.

Sunday, December 30, 2012 – *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 con-

tact 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 Frank and Beth Woolavers' house near Brooklyn for a tally count and potluck supper.

Saturday and Sunday, January 26 and 27, 2013 – *Eagle Watch Weekend 1*. The Sheffield Mills Community Hall will host its annual pancake and sausage breakfast with naturalist displays, films, crafts, and art show. A short drive around the area in the morning will usually 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.eagles.ca or contact Richard Hennigar at (582-3044 or hennigar@xcountry.tv).

Saturday, February 2, 2013 – *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 properties 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- or three-hour, non-strenuous hike at a nearby location to be determined by weather and snow conditions.

Saturday and Sunday, February 2 and 3, 2013 – *Eagle Watch Weekend 2*. A repeat at the Sheffield Mills Community Hall.

Saturday, February 23, 2013 – *Orchid Display and Sale*. The Valley Orchid Group will have its annual display of orchids in the conservatory of the KC Irving Environmental Science Centre at Acadia University from 10:30 a.m. to 4:00 p.m. There is usually a presentation in

the downstairs auditorium about orchid growing and people in the lobby selling orchids along with specialized materials and instructions on how to help them grow well. This is a sure cure for the winter blahs, with only the very best of the best orchids brought for this occasion. You will see plants that you will not believe are real – they are so beautiful, perfect, and complex in their structures. Photographers are welcome and encouraged.

Friday, February 15 to Monday, February 18, 2013 – *Great Backyard Bird Count (GBBC)*. This count is done by the National Audubon Society and the Cornell Lab of Ornithology, with Canadian partner Bird Studies Canada. The 2011 count had 60,000 participants turning in 11.4 million observations, identifying 596 species. In 2012 those numbers jumped to over 104,000 checklists submitted, over 17 million birds counted, and 623 species reported. For 2013 those numbers will really go up, as the GBBC is going to be tied in through *eBird* and will go worldwide! Instructions on how to participate, as well as access to the collected data, can be found at <http://www.bird-source.org/gbbc>.

Sunday, March 10, 2013 – *Valley Birding*. Leader: Patrick Kelly (472-2322, patrick.kelly@dal.ca). This will be a joint trip with the Nova Scotia Bird Society. Meet at 9 a.m. at the Wolfville waterfront. We will be looking for raptors, lingering winter visitors, and rarities in and around Canning and Grand Pre. Dress warmly and bring a lunch.

Saturday April 13, 2013 – *Herbert River Canoe Trip*. Leader: Patrick Kelly (472-2322, patrick.kelly@dal.ca). The Herbert River is fairly easy with lots of water at this time of year, and it covers a great variety of terrain. There may be spots where it is running a bit faster, or where there are new obstructions from the trees, etc. that have come down over the winter, so we may have to wade in a few places, or stop to scout out a bend. The trip will be four to five hours long, depending on our pace. Bring life jackets, canoe or kayak, and paddles. If you have access to a life jacket but not a canoe, there will

likely be extra room in one of the canoes. Check with the leader to be sure. Meet at the Newport rink parking lot at 9 a.m. Take Exit 5 from Highway 101 and follow Highway 14 east for about 10 km to the village of Brooklyn. At the cenotaph, keep left and follow Highway 14 north for just under 1 km. At the intersection (Petro-Canada station), Highway 14 turns right. Continue straight on Highway 215. (Note the YIELD sign. you do NOT have the right of way!) The rink is on the right as soon as you exit the intersection. We will be leaving some cars there as we will actually be putting into the river farther upstream. Rain date: Sunday, April 14.

Saturday, April 27, 2013 – *Birding in Kings County Forests*. Leader: Rick Whitman (542-2917, rick.whitman@ns.sympatico.ca). This joint trip with the Nova Scotia Bird Society will focus on forest species in two locations south of Wolfville. The Greenfield location is a wonderful, mature coniferous forest. The Forest Hill location is a NS Nature Trust property that is also very attractive. We'll take our time and make a day of it, but the Greenfield section may be enough for some. Meet at the Wolfville wharf parking lot off the east end of Front Street at 9 a.m. Dress warmly, wear waterproof boots, and bring a lunch. Drizzle and light showers will be tolerated. No rain date.

Friday, May 24 to Sunday, May 26, 2013 – *Nature Nova Scotia Annual General Meeting and Conference*. – This year Nature Nova Scotia will be holding its annual weekend celebrating the natural history of Nova Scotia at Milford House, near Kejimikujik National Park. Details will be available on the Nature Nova Scotia website (www.natures.ca/node/2) closer to the date of the event.

Friday, September 6 to Sunday, August 8, 2013 – *NOVA EAST 2013*. Atlantic Canada's longest-running star party will be held at Smileys Provincial Park near Brooklyn in Hants County. Some of the presentations and workshops as well as the Saturday evening observing session are open to the public. NOVA EAST is hosted jointly by the

Halifax Centre of the Royal Astronomical Society of Canada and the Minas Astronomy Group. More information can be found at <http://halifax.rasc.ca/ne>.

FIELD TRIP REPORT

Invasive Shrubs and Trees

by George Alliston

OCTOBER 13, 2012 – At 9:30 on a brisk October morning, six of us gathered at the Wolfville wharf to prepare for our outing. We discussed the differences between “alien” species (those that have been introduced since colonization) and “invasive alien species.” Most alien species are quite restricted in where they will grow and do not pose significant problems for native species or ecosystems. *Invasive* alien species (by definition) are those that compete successfully with native species in natural habitats, exclude these species, and, at worst, impede or terminate natural ecological processes. Next to habitat destruction, invasive alien species are considered to be the greatest threat to world biodiversity.

We examined a specimen of Garlic-Mustard (*Alliaria petiolata*) that I had picked up in Grand Pre. This is a herbaceous species that has been recently introduced into our area and is capable of growing in woodlands, where it can essentially eliminate native herbaceous species and form a monoculture on the forest floor. There is also some indication that it may alter the biodiversity of soil fungi, which could influence the mycorrhizal fungi upon which many native trees and shrubs are dependent for nutrient uptake.

We went to a property on Wolfville Ridge to identify some of the invasive species common to our area. While only one invasive species – Glossy Buckthorn (*Rhamnus frangula*) – was well established

on the section of the property we examined, several other potentially invasive species were also identified.

Glossy Buckthorn and Common Buckthorn (*R. cathartica*) are small trees (to 6 m) that are able to grow in varying light and soil conditions. Starting at a young age they can produce copious quantities of fruit, some of which are eaten and spread by birds. However, many of the fruit fall to the ground, and mice help spread the seeds over an extended area surrounding the tree. Over time, the area surrounding the tree becomes a thicket of seedlings that can reach densities of 50 stems/m². As these thickets grow and extend, they exclude the native herbaceous and shrub species and make regeneration of native tree species difficult or impossible. The Atlantic Canada Conservation Data Centre considers these buckthorn species to present the greatest threat to our native woodlands and some wetlands of any invasive species currently present in Nova Scotia.

On this property we also identified other potentially invasive species:

- **Norway Maple** (*Acer platanoides*) – This tree species and its many multicoloured cultivars have been, and continue to be, widely planted as ornamentals. They can produce large quantities of viable seeds. The trees produce toxins that inhibit the regeneration of native plants and, over time, can exclude native species. On slopes, the lack of herbaceous growth under these trees can also lead to erosion.
- **Scotch Pine, aka Scots Pine** (*Pinus sylvestris*) – This tree can be problematic in ecosystems such as those found on the Kingston Sand Barrens. It can form thickets that are not habitable by the species native to these rare ecosystems (including some species at risk).
- **Multiflora Rose** (*Rosa multiflora*) – This shrub can become a problem in open habitats where its long arching limbs can overgrow herbs, shrubs, and sapling trees. Where the tips of the arching limbs touch the ground they take root and produce new plants that expand outward, creating a dense mat. At the edge of forests

and in forest openings they can become established and climb as high as 12 m into the canopy. They produce copious quantities of fruits, which are eaten and distributed by birds.

The last part of the trip was to a property on Gaspereau Mountain where efforts had been made over the past 12 years to control an infestation of Glossy Buckthorn. The strategy had been (1) to first remove all seed-bearing specimens, (2) to revisit the sites where seed-bearing specimens had been removed, at least every two years to remove seedlings until the seed banks were exhausted, and (3) to make a complete sweep of the property once every three to four years to remove newly established plants (presumably the result of bird droppings) before they could bear fruit. Item 2 was time consuming, since the seed banks could produce many hundreds of seedlings over a period of years. As we found out, it took about seven years of removing seedlings to exhaust a seed bank. The purpose of this portion of the trip was to embark upon item 3, since it had been three years since the property had been completely searched for buckthorn reintroductions.

At this point in the trip we experienced a mass desertion; however, two of us proceeded on to the property and visited an area that had been heavily infested with Glossy Buckthorn. We found and removed numbers of seedlings and young sapling buckthorns but found no seed-producing plants or concentrations of seedlings that occur where seed banks have not been depleted. I returned to the property at a later date to complete the search and was pleased to confirm what we had observed during the field trip – that our previous efforts had been successful in eliminating from the property both the seed-bearing buckthorns and the seed banks they had created. It would seem that buckthorn on this property is currently under control. Reintroductions will occur, however, but a search-and-destroy mission (requiring about one person-day) every three years should be sufficient to keep these plants under control.

In the 12 years that this program has been conducted on this 9 ha property, we have spent about 19 person-days of effort to control this

buckthorn infestation. Control is quite possible if the infestation is recognized and addressed during its early stages of establishment. Once control is established, monitoring for reintroductions (much less work intensive) should continue until a more mature forest is established. Mixed forests consisting of late successional and climax species appear to be quite resistant to the establishment of buckthorn.

Despite the mass desertion, I would like to thank those who came on this field trip; they were a very knowledgeable group from whom I learned a lot.

FIELD TRIP REPORT

Tannery Hollow & Hennigar's Farm Trail

by George E. Forsyth

OCTOBER 21, 2012 – An enjoyable afternoon field trip to the Tannery Hollow and Hennigar's Farm Trail was very well attended by 27 participants. This very diverse group was able to enjoy a beautiful late fall afternoon in sun and warm temperature. A number of our group were on their own at Hennigar's and joined us when they learned that we were hosting a walk through the nature trail.

The theme of the walk was tree and shrub identification without the clues of leaves and blossoms, but as all field trip leaders know, each group will develop its own agenda and conversation, as questions lead to more questions and the expertise of the group's members becomes evident. As we began our walk we were looking at the large wellhead that the Hennigars had drilled, and I commented on the pressure and quality of the water. Joining our group on the trail



PAULINE MELDRUM

Participants in a field trip to the Tannery Hollow and Hennigar's Farm Trail

on a Sunday stroll with his wife was Terry Hennigar, a hydrologist. He was able to expand on my comments, telling us about the aquifer that lies beneath this area of eastern Kings County. This water is a valuable resource that is being tapped for present use and is one of the best-quality aquifers in the Maritimes.

The Tannery Pond is named for a leather tannery that operated here in the latter part of the 19th century. Ice was also cut from the pond and stored for sale in Wolfville to businesses and for domestic ice boxes. We watched the 100 very tame ducks that were resting on the pond. This pond is where Mallards were first regularly observed in Kings County, and but for five Black Ducks, all we saw this day were Mallards.

As we hiked, the distinctive bark and twig clues for various trees were described. White Birch is one of the easiest to identify by bark, but Grey Birch (also called Wire Birch) can be confused until twig characteristics are observed. Grey Birch has a wiry characteristic, and White Birch has stouter and fewer twigs. With each tree species we encountered, we tried to identify the species without using the leaves. The bark, twigs, branch structure, and sometimes the fallen

leaves beneath were all used as clues to identify a number of native and introduced* tree and shrub species:

- *Abies balsamea*, Balsam Fir
- *Acer saccharum*, Sugar Maple
- *Acer platanoides*, Norway Maple*
- *Amelanchier* species, serviceberry, shadbush, Indian pear, shad-wood, shadblow, bilberry, juneberry, saskatoon, (too many species and natural hybrids to be certain as to species without leaves, blossoms, and fruit)
- *Betula papyrifera*, White or Paper Birch
- *Betula populifolia*, Grey Birch
- *Fraxinus americana*, White Ash
- *Picea glauca*, White Spruce
- *Pinus strobus*, Eastern White Pine
- *Pinus sylvestris*, Scotch or Scots Pine*
- *Populus tremuloides*, Trembling or Quaking Aspen, popple
- *Populus grandidentata*, Large-toothed or Bigtoothed Aspen
- *Prunus serotina*, Black Cherry
- *Prunus avium*, Sweet Cherry (bird or domestic cherry)*
- *Prunus pensylvanica*, Pin Cherry
- *Prunus virginiana*, Chokecherry
- *Quercus rubra*, Red Oak
- *Quercus robur*, European White Oak, English Oak*
- *Quercus bicolor*, Swamp White Oak*

A week before this field trip was a BNS field trip on invasive shrubs (see previous report). In Greenwich, including Hennigar’s Farm Trail, there is an invasion of both Multiflora Rose (*Rosa multiflora*) and Common or European Buckthorn (*Rhamnus cathartica*). We were, without any effort, able to see both shrubs in abundance. The rose grows along the field edges and in the ravine along the brook. The buckthorn grows in the shade of the woods in the ravine and throughout the woodlots of the farms in this area. It is interesting that the rose had been advertised by nurseries as the “living fence”

because of the thorns and impenetrable growth. In the Tannery Hollow there are Multiflora Roses with no thorns, some with thorns only on two-year wood, and shrubs that are “armed and dangerous”!

The view from the top of the trail, at the south end of a large farm field, is well worth the hike. This is the view that tells me that I am “home,” the view that most represents my growing up, the view that traces my family’s history, and the view that I enjoy sharing with people who understand and appreciate nature, broadly interpreted, to include the rocks, plants, animals, water, air, and stars.

NATURAL HISTORY

2012 Nest Report

by Bernard Forsythe

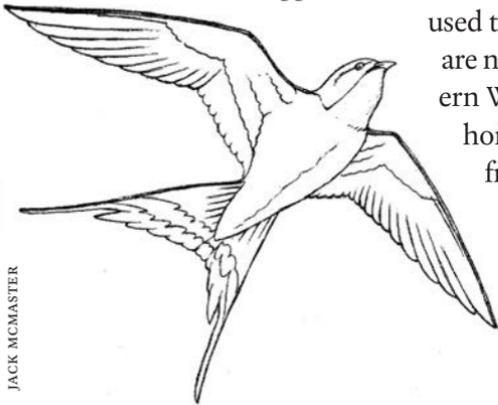
THIS year’s nesting season began on February 23, when our backyard Barred Owl first visited her nestbox, and ended September 12 with five young goldfinches fledging from a nest on Nature Trust property in Gaspereau. The article in the summer 2012 BNS Newsletter regarding Barred Owls taking over a Goshawk nest between two other active Barred Owls needs updating. On June 4 I located the missing Goshawks with young in a new nest less than 200 metres from their hijacked nest. The new total was now three Barred Owl nests plus a Goshawk nest in an almost straight line within a distance of one kilometre. All proved successful. The eight adult raptors in four nests fledged ten young: eight owls plus two hawks. Their prey species of small mammals, birds, fish, etc. must have really taken a beating. Five of the duck nestboxes that Arnold Forsythe and I monitor on Black River Lake were occupied by Hooded Mergansers, with four boxes fledging young. Two Red-tailed Hawk nests plus five of six Bald Eagle nests recorded were also successful.

Nest hunting becomes more interesting when a nest is located out of the usual habitat for a species. Blue Jays will sometimes nest near houses. I once saw a nest on wires entering a house, but never in a building. Harold Forsyth had a pair of Blue Jays fledged young from a nest on a ceiling beam inside his large empty barn in Greenwich. Phoebes raised two broods in the same nest under the White Rock bridge. Before the early 1960s, many buildings in our area had gourd-shaped nests of Cliff Swallows up under their eaves. In 2012, after an absence of many years, three pairs of these now uncommon swallows nested on a barn near Greenfield and fledged at least eight young. The outcome from five occupied Black-capped Chickadee nestboxes was not as pleasing. Raccoons reached into four of the box entrances and hauled out any contents they could grab.

Predation was also high among Cedar Waxwing and Goldfinch nests this year. While I was making my rounds, crows or Blue Jays always seemed to be nearby, and I expect some nests were lost to these clever birds always on the lookout for an easy meal. In the fall of 2011 the Department of Highways mowed down most of the bushes along Highway 101 where I have found many nests. A few patches of bushes remained where in early August I spotted several Cedar Waxwing and Goldfinch nests. However, these nests were lost when on August 15 the remaining bushes were cut down.

One highlight occurred on May 23 when I banded a nest of Barred Owls on Ross Creek Road and also found a Kestrel incubating five eggs in a nestbox high in a White Spruce. Kestrels

used to nest in the Wolfville area but are now seldom seen. A pair of Eastern Wood-Pewees built a nest on a horizontal branch 2.4 metres out from the trunk 7.9 metres up in a Red Maple in our backyard. The adults spent many hours chasing Blue Jays from the nest area but were successful in fledging two young pewees



JACK MCMASTER

from the three eggs laid. Alder Flycatchers have always been a favourite of mine, and three nests were recorded this year. They nest low in bushes, usually less than one metre from the ground. The nest cup is neatly woven with fine grasses, but long coarse grass stems will be hanging below the nest. Thus the nest can be identified even without seeing the shy adults skulking nearby giving pip, pip calls.

Several other recorded nests included Wood Duck, Ring-necked Pheasant, one Red-eyed Vireo nest only one metre from the ground, raven, seven Yellow Warbler nests, Ovenbird, Song Sparrow, junco, Red-winged Blackbird, and grackle. Although a Savanna Sparrow nest in a mowed hay field was totally exposed, three young fledged from a four-egg clutch. A total of 127 nest cards representing 32 bird species were submitted to the Maritime Nest Records scheme.

NATURAL HISTORY

Uncommon Shoreline Shrubs of NS

by Martin L.H. Thomas

NOVA Scotia is the home of a wide variety of native shoreline shrubs, some of which are uncommon or rare. Many of them have very attractive flowers and are well worth seeking out in the flowering season. Most of them are found in the southwest of Nova Scotia and are members of the Atlantic Coastal Plain Flora (ACPF). For most, Nova Scotia is at, or close to, their northern limit.

Most of these southern shrubs are found in freshwater habitats, but two are typical of estuarine shorelines where salt water is measurably diluted with fresh. These are Marsh-elder (*Iva frutescens*) and the Groundseltree (*Baccharis halimifolia*).

Fortunately, Marsh-elder is very common around Wolfville. As is often the case with common names, the name Marsh-elder is quite



LEFT: *Marsh-elder* (*Iva frutescens*), *Wolfville dyke*

RIGHT: *Groundsel tree* (*Baccharis halimifolia*) *male flowers*, *Egypt Road*

confusing, since the plant is found in drier locations than the salt marsh proper, and it is not closely related to the elders but is a member of the aster family, whereas the elders are in the honeysuckle family. Another intriguing but confusing name for this plant is Jesuit's Bark, which also refers to a South American tree whose bark yields quinine. Marsh-elder roots were used in the past to make a demulcent, or soothing balm.

Here it can be found on the seaward side of dykes and is very common near the Wolfville Waterfront Park. Elsewhere in Nova Scotia it is found in a few scattered locations as far north as Cape Breton. Compared to plants growing further south, Canadian specimens are much shorter, rarely exceeding 1.5 m (4.5 ft.). In the southeastern USA this shrub may reach 3 m (about 9 ft.). Here, they are often damaged by severe freezing, which kills stems, and they have to regrow from lower portions every spring. In Nova Scotia, Marsh-elder is ranked as sensitive. In Maine it is classified as endangered, and in New Hampshire as threatened.

Groundsel tree, like the Marsh-elder, is a member of the aster family. It is found only in Yarmouth County, mostly on the banks of the Tusket River estuary. In Nova Scotia it is classed at-risk, but it is common from Massachusetts south to Northern Mexico. Curi-



Groundseltree (Baccharis halimifolia) female flowers, Egypt Road

ously, although it occurs in Nova Scotia it has not been recorded from Maine, New Hampshire, or Rhode Island. Here in our province it is found only along estuarine shores, but further south it has spread inland along highways that are treated with salt in the winter. Introduced into Australia, it has become harmfully invasive in both Queensland and New South Wales.

Here, this species is a many-stemmed shrub 1–2 m (3–6 ft.) high, but further south it sometimes develops as a typical tree with a single trunk, which may reach at least 4 m (13 ft.) high. One interesting feature of this shrub is that it is dioecious, meaning that a bush can be either male or female. The female flowers produce many single seeds, each of which is crowned with a long feathery hair that aids in wind dispersal. The leaves have been used to make an aromatic, green brew that is said to help treat fever, congestion, and the common cold. The seeds are toxic.

Another of these southern shrubs is Poison Sumac (*Toxicodendron vernix*), which is in the poison-ivy family rather than a true sumac. It is extremely poisonous; contact with its leaves or bark can cause severe dermatitis, and the berries are very toxic. It is said that this is probably the most poisonous plant in North America. If parts of the shrub are burned, inhaling the smoke can cause intense inflam-



LEFT: *Sweet Pepperbush* (*Clethra alnifolia*), *Mudflat Lake*

RIGHT: *Buttonbush* (*Cephalanthus occidentalis*), *Molega Lake narrows*

mation of the lungs, which often results in death. Fortunately, from a safety point of view, this shrub is found in only one quite isolated place in the province. In Nova Scotia it is ranked at-risk.

One of my favourites of this group of shrubs is the Sweet Pepperbush (*Clethra alnifolia*), ranked as sensitive, and found on only six lakeshores in Queens, Digby, and Yarmouth counties of southwestern Nova Scotia. It is absent from the rest of Canada. Sweet Pepperbush is found wild along the east coast of the USA from Maine to Mississippi. This shrub can reach 2.5 m (8 ft.) high and has a dense growth pattern. The numerous, attractive five-petaled flowers are white and appear in dense upright spikes in late summer. The flowers emit a very intense, pleasant scent, which can often be detected at a considerable distance. Its characteristics of late flowering, very attractive appearance, and strong scent are attractive to gardeners, and it has been used as an ornamental shrub for over 250 years. Both white and pink cultivars are sold in milder locations.

Another very lovely shrub with unique flowers is the Buttonbush (*Cephalanthus occidentalis*). Other common names are Button Willow and Honeybells. This shrub can grow up to 3 m (10 ft.) tall, but is usually about 2 m (6.5 ft.). This is a widespread shrub found at scattered locations in all Maritime provinces, but absent from New-



LEFT: *Red Chokeberry* (*Aronia arbutifolia*) fruit, *Kingston sand barrens*

RIGHT: *Water Willow* (*Decodon verticillatus*), *Moosebone wetland edge, Kejimikujik*

foundland. It is found in the eastern half of the continent as far south as Mexico. The most attractive feature of this shrub is the flowers. Unopened buds appear as a spherical cluster that resembles a round button; hence the common name. When the plant is in full bloom the small flowers are closely arranged to form a large white sphere from which project numerous yellow-tipped stigmas, giving it a fuzzy appearance. The flowers attract butterflies and other insects, as they produce plenty of nectar. Buttonbush is ranked as sensitive.

Red Chokeberry (*Aronia arbutifolia*) is another attractive shrub found on lakeshores but also inland in swamps, bogs, and damp forests. It is a little hardier than the species discussed above and is found from Nova Scotia south to Mexico. It is a member of the rose family. The flowers are quite small – about 1cm (0.4 in.) across and clustered at the tips of the branches; the fruit is about 0.5 cm (0.2 in.) in diameter. These berries stay on the plant into winter and mature to a bright red. Several cultivars for garden use have been developed. The Chokeberry name suggests that the fruit are inedible; however, they are not poisonous but very astringent, causing one to cough. After they have frozen they are said to be quite sweet and pleasant.

The last two entries in this account of fascinating southern shrubs have common names that suggest they are willows. However, com-



Silky Willow (Salix sericea) leaf underside, Wentzells Lake shore

mon names are often confusing, and in this case only the Silky Willow (*Salix sericea*) is really a willow. The other, Water Willow (*Decodon verticillatus*), is actually a loosestrife and closely related to the introduced, spreading Purple Loosestrife (*Lythrum salicaria*). What they do have in common, however, is that they live in wet or damp locations. Water Willow is most commonly found along lakeshores and river and stream banks but is uncommon and ranked as sensitive. It has attractive purple flowers in mid-summer. Silky Willow can be found in similar habitats to Water Willow but is rarer and ranked at-risk. It has the typical long leaves of willows, but the underside of the leaf is covered in short silvery hairs, giving it a silky look and feel. Silky Willows bear male and female catkins in early spring, before the leaves appear.

For further information on the ACPF, see www.speciesatrisk.ca.

The photographs for this article were taken by Martin Thomas.

A Sound & A Sight to Behold

by Ed Sulis

Location: Cape Split

Time: 1130 to 1300, September 20, 2012

A PLEASANT walk to the end, warm, some sun, light south wind, a few bugs, very few birds: just us three. The tide rip at mid-flood is spectacular, and the sound of same is as advertised. “The Voice of the Moon” is eerie and ever-present.

During lunch a Blue Jay or two start to flit about, and that number increases, as do the distinctive Blue Jay calls. Nothing unusual. Then what is this as all about – 100, 200, and more Blue Jays are rising out of the evergreen trees nearby, quite noisy, and ascending en masse to an altitude estimated at 150 to 250 metres. No formation flying for these guys and girls as this boiling gaggle grabbed height very fast. Then quiet prevailed as this still boiling mass – who taught these guys how to fly? – descend very, very quickly back into the spruce trees.

Show over, much too fast, and back to lunch. And a repeat in less than 20 minutes with the fast, noisy Blue Jays in boiling ascent followed by an even faster but less noisy descent. And a repeat, and another repeat. What this is all about I can only speculate.

Bon Portage Research

by Dave Shutler

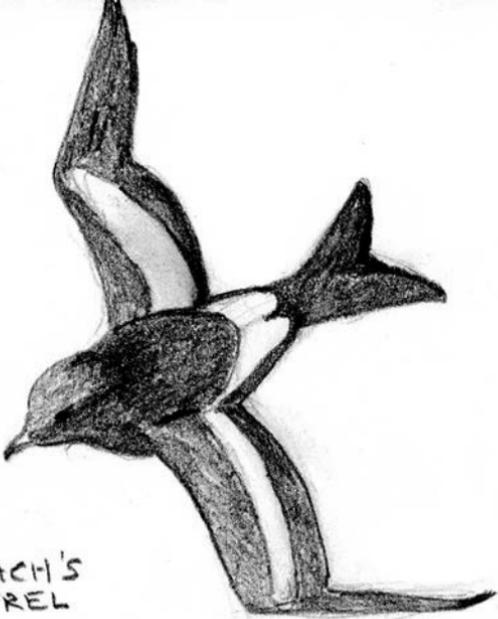
PART 1: STORM-PETREL NUMBERS

I'VE been somewhat laxative in contributing to the newsletter lately, and Jean suggested that an easy-to-write topic that might be of interest to any gathered hoards would be to tell you what's happening on Bon Portage Island (hereafter BP). My first response to this was, "Hey man, I'm happening on BP!" But I thought better of writing that. Instead, I'll reach back into my cache of memories of the island since I arrived at Acadia in 1998, where against my will, I became privileged to be appointed BP's director.

Many of you are familiar with BP, particularly if you saw Claire Diggins' recent presentation of her experiences with the island. But in case you don't know, BP is (mostly) an Acadia-owned property visible from Shag Harbour in the southerly reaches of our magnificent province. If you want to find out more about this gem, surf my name – you'll have to navigate a non-doppelganger sharing my name who is a bodybuilder – and check out my website.

Research of various kinds has been happening on BP since the late 1970s (earlier if one considers the observations of lighthouse-keeper Evelyn Richardson). Descriptions of those heady days are best left to others.

So, to my firsthand experiences: this article focuses on what many consider the centrepiece of the island. At the end of July 1998 my wife, Adele, and I drove from Saskatoon to Acadia, arriving two weeks before I was to teach my first field course on BP (there are many tales I have to skip to stay within the framework of this contribution). I learned that a big part of BP's charm and conservation



LEACH'S
PETREL

MARY PRATT

value was its population of Leach's Storm-Petrels (hereafter, storm-petrel), but that was about all I knew, and I knew very little about storm-petrels in general.

Adele and I visited BP for one night to give me a sense of how I could deliver the field course; we found the island overrun with a work crew of storm-petrel volunteers helping MSc candidate Jonathan Oxley. The context was this: in 1983, Colin MacKinnon had sampled a series of 5 m square plots on the island to figure out how many storm-petrels were on the island. His estimate for the south end of the island was about 54,000 pairs (a number I still have trouble getting my head wrapped around; if each pair had one chick, that would mean 162,000 storm-petrels associated with an island that measures just 3 km x 1 km). However, the estimate was deemed unreliable, and could have been anywhere between -92,000 (!!) and +200,000 pairs! For reasons statistical, a square plot shape was one cause of uncertainty in the estimate. Long, narrow rectangular plots (10 x 2.5 m) increase confidence in estimates, so Jonathan was redoing Colin's study (with the help of Colin and many others). Happily, Jonathan arrived at estimates very similar to Colin's: 41,680 pairs (somewhere between 30,511 and 52,849) in 1997, and 56,603 pairs

(somewhere between 45,169 and 70,037) in 1998. However, even this improved range in estimates is troubling, given the amount of effort required to obtain these data. It means that 20 percent changes in population size could have been undetected.

And then a bit of a shock occurred in 2000, when the BP committee was informed that a salmon farm opening in 2001 would be roughly 300 m from the island's dock. The farming operation would be about 3 x 1 football fields in size, with 10 separate enclosures. Because we had no jurisdiction over anything below the high-tide mark, we were powerless. Most of you are familiar with the myriad ecological consequences of fish farming, and I won't detail those. The BP committee was worried that there would be consequences for the storm-petrel colony. The scenario we envisioned went like this: Feces and excess food that fall through the netting of these huge cages end up in the local ecosystem. This pulse of nutrients leads to increased algae populations, which in turn feed microscopic animals, and they feed two more foodstuffs, and they feed two more foodstuffs, and we end up with more gulls. Both Great Black-backed and Herring Gulls breed on BP and are known predators of storm-petrels. The fish-farming operation provided some money for us to study this, and a student and I (assisted on occasion) completed another census of the petrel population in 2001. We obtained an estimate of 48,243, remarkably similar to MacKinnon and Oxley, but with the same broad range of confidence (somewhere between 37,500 and 59,000 pairs). (The fish farm is now gone; that's another story). So, that's where things have stood for a while; the estimates average to about 50,000 pairs, and we have no compelling evidence of significant changes.

In 2005 a BSc honours student shifted my research program to include Leach's Storm-Petrels, and it has since become a study system for about a dozen students. Now, my students are monitoring about 250 nests, and we plan to continue this monitoring work. Monitoring has become more important since another recent speaker at one of your meetings, Mark Mallory (I have stories about him, too!), who is well connected with federal biologists in Atlantic Canada, alerted me

last year to evidence, particularly from Newfoundland, suggesting significant declines in storm-petrel numbers. Apparently, the same has been happening in northern Europe. But what isn't clear is the cause, or, more likely, causes.

We know that a huge colony on Seal Island was wiped out decades ago by rats, and there are unconfirmed reports of them on BP but no convincing evidence. Another possibility is heavy-metal exposure, particularly mercury and cadmium, which we are just beginning to investigate. On BP, mustelid (either otter or mink) predation has been documented; if it's mink, one concern is that this represents escapes from fur-farming operations in southern Nova Scotia, which means that many other petrel colonies are vulnerable. Yet another possibility is climate change that is affecting food availability. Or some combination of factors.

In November 2012, I was part of a meeting of 30+ people that included representatives from government, academia, and NGOs from Newfoundland to Maine to Quebec. We have initiated collaborative efforts to try to quantify the relative contributions of each of these potential variables to storm-petrel declines. Maybe a future article will provide insight into the plight of these fascinating birds.

FORESTS & WILDLIFE

Nova Scotia's Forests: Over Cut

by Bob Bancroft

SOME of you might remember the Kingston Trio's thoughtful song "Where Have All the Flowers Gone?" Lyrics to mirror the current times might sound like this: Where has all the wildlife gone? Short time passin' / Where has all the habitat gone? Used for commodities every one. / When will we ever learn? . . . and so on.

In the 1980s I was asked to participate in an Atlantic Teacher's Tour – a series of summer forestry field trips to broaden teacher experience and understanding. I was instructed to speak as a biologist about an actual wildlife conundrum, unfettered by my Department of Natural Resources regional job. A request had come the previous year from the Wildlife Division to locate dense populations of moose associating with White-tailed Deer in the same habitat. A provincial study was conducted by an Acadia student. The area near Webster's Corner, Pictou County, held the highest deer/moose population found through the duration of the research. I took a busload of teachers out to show them why.

Off the bus and with teachers strewn around me perched on stumps, I pointed to square miles of clearcuts surrounding one remaining block of forest. I explained the concept of wildlife displacement (in this case from clearcuts), which accounted for the extremely dense concentration of deer, moose, and many other species in the only remaining forest block. There was a thoughtful silence. Then I informed them that the last forest block, covering roughly one square mile, was scheduled to be cut in the coming months. Where would the wildlife go?

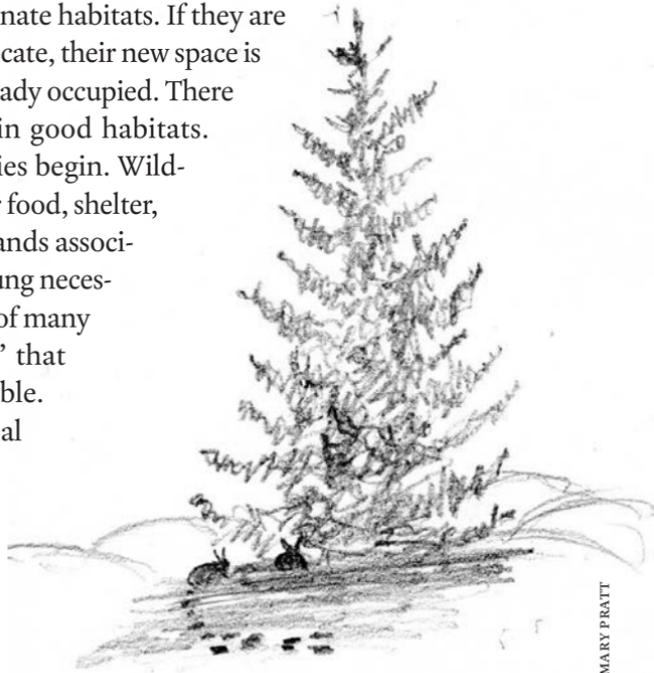
One of the teachers was married to a senior research scientist in the Department of Natural Resources. She called her husband, who called me. I was hauled in to the Natural Resources head office in Halifax to explain myself. The problem was me. They ignored the issue. The last block of forest was cut.

During the late 1990s my parents lived on the South Mountain side of the Annapolis Valley, beside Black River Lake. A foreign-owned pulp company based in Abercrombie, Pictou County, decided to liquidate its forest holdings along the South Mountain. The results were astonishing moonscapes, erosion into waterways, and a lasting legacy of disruption. Truckloads of trees rumbled by my folks' place for years. Alas, my parents are gone and so too are the once continuous, diverse forest lands that they enjoyed. Today, Black River Lake is an island with a thin veil of mature trees around the lake, but to every point on the horizon beyond, the forests are only a memory, and the

land echoes only with ghosts of the rich diversity of wild species that abounded therein. Deep wounds scar the land and soils in the wake of feller-bunchers that ran around the clock. Where do wild species like bobcats, fox, fishers, and birds find winter shelter when the land is uninhabitable for 40 square kilometres?

In May 2004 I travelled with Chief Frank Meuse of Bear River First Nation to see a splinter of untouched wild habitat – an island on Sporting Lake. We drove through kilometre after kilometre of Irving clearcuts before launching our canoes. Not surprisingly, around that time the Bear River First Nation Reserve inherited an unusually high population of Black Bears. Displaced bears wander to locate intact, large-tree forests with den sites, nearby food, and places to hibernate. One winter a forest technician working there for a private company called me by cell phone. He had just found a young Black Bear hibernating – in an open clearcut. It couldn't find a proper den site.

Forests harvested at unsustainable levels leave woodland birds, mammals, amphibians – and down the food chain to fish and bugs – searching for alternate habitats. If they are lucky enough to relocate, their new space is almost certainly already occupied. There are no empty lots in good habitats. Fights over territories begin. Wildlife requirements for food, shelter, water, and the demands associated with raising young necessitate their own use of many natural “resources” that are no longer available. Successive provincial governments and the Department of Natural Resources have steadfastly paid token attention to these issues



MARY PRATT

but have been unrelenting in their blind commitments to maintain a steady supply of wood fibre to industry. These commitments have no basis in a natural world. Instead, they strive to turn Nova Scotia into a fibre farm.

Whole groups of forest birds have declined exponentially between 1992 and the present, as recent results of the Maritimes Breeding Bird Atlas clearly show. For naturalists and many dedicated bird watchers, this is not surprising. Many forest bird species had nearly vanished from vast expanses of landscape geography they had occupied decades before. Forest insect communities that support wetland birds and other insect-eating creatures have severely declined. Intact bird communities remain only in isolated islands or pockets of habitat. With small population sizes, fractured by ever-expanding gaps in the landscape mosaic, mating systems break down, healthy gene pools languish, and species disappear. Problems in the tropical wintering grounds used by many migratory species only further accelerate bird declines.

Ousted, many wild animals resort to marginal habitats, or move nearer to humans. Bears, fishers, and bobcats are showing up in settled areas like the Annapolis Valley. Too much forest flattening, too fast, and for too long. In the 1700s, loggers picked tall, straight White Pines as masts for ships. Now they are back on the same site grinding up whatever is left – paying a pittance per tonne, while calling it sustainable.

Some wildlife species adjust. Most quietly dwindle and die. Nova Scotia's plundered forests need and deserve a better vision than wordplay and cheap, thinly veiled definitions designed to disguise clearcut conditions and confuse the public. The forestry bus, long driven by industry, with governments along for jobs, has left a trail of lasting environmental destruction. The land is destabilized and nature's ability to heal crushed. The bus driver needs a new map, and a new direction.

Two Rare Birds in Wolfville, Late Summer 2012

by Richard Stern

JUST before dusk on August 23, 2012, I was cycling back from a short trip on the dykes when I looked over the bank onto the mud flats near the gazebo in Wolfville's Waterfront Park and spotted an odd-looking bird. Through the binoculars (don't leave home without them!) it was obviously a juvenile-plumaged Yellow-crowned Night-Heron (*Nyctanassa violacea*). The two night-herons are small, squat members of the heron/egret family, and although the adults look very different, they are rather similar in juvenile plumage. The Yellow-crowned has a larger, darker bill, different spots, and a less squat, bull-necked appearance than the Black-crowned.

Although occasionally breeding on coastal islands, this species most often inhabits forested wetlands, swamps, and bayous of the deep south, where poor lighting seems to be the most reliable characteristic of its breeding sites. The Yellow-crowned is partly migratory, but juveniles, more than adults, frequently disperse from their normal breeding areas and are seen as vagrants (in Nova Scotia, for example). The overall range is expanding northward.

It specializes in taking crustaceans, especially crabs, which it hunts using slow stalking movements. When it catches a large crab, the bird methodically dismembers and eats it, body first. Indeed, that's what this bird was doing, and it seemed quite happy to continue, with an apparent good food supply, till it got too dark to see. I called other local birders, some of whom also saw the bird. It stayed around for a few more days, generally visible just before dusk, as befits its



RICHARD STERN

Marbled Godwit, Wolfville Harbour



RICHARD STERN

Yellow-crowned Night-Heron, Wolfville Harbour

name. After it had disappeared, there were a few isolated reports of a bird that was probably it flying around downtown Wolfville!

This species is regularly seen around coastal Nova Scotia, but there are few reports from Kings County. Oddly, it is more often seen as

a vagrant than the more abundant and widespread Black-crowned, which breeds in small numbers in southwestern Nova Scotia.

Then on September 11, Bernard Forsythe reported to the local birding community that he had found a Marbled Godwit (*Limosa fedoa*), a large shorebird, on the mud flats in Wolfville Harbour at low tide. This is a rare bird for Nova Scotia, and this individual stayed around in more or less the same spot for almost two weeks, to the delight of birders both local and from farther afield. Most of the time it was very cooperative, and nearly everybody that travelled to see it was successful. Also, it was often in the company of other shorebirds, particularly Greater Yellowlegs, which are regular in the same area in fall, allowing nice size and plumage comparisons.

Unlike many shorebirds whose different plumages (juvenile, adult breeding, and adult non-breeding) are relatively easy to distinguish between, the Marbled Godwit exhibits rather similar plumages at all ages, but *our* bird was probably in juvenile plumage. This fits with the tendency of juvenile birds in general to wander away from their usual destinations more than adults.

The species breeds only in the Prairies, in southern Canada and the northern US, in a small area in Alaska, and in a small area along the southwestern rim of James Bay. It undergoes relatively short migrations, unlike some other godwit species that breed in the Arctic and are among the world's longest-distance migrants. Its normal wintering areas include the mid- to southwest and east coasts of the USA (on the east coast from the Carolinas to southern Florida) and coastal Central America and parts of coastal South America. So, looking at a map, it's not hard to imagine that being off course by only a few degrees to the north would cause a bird from the Prairies heading to the Carolinas to be diverted to Wolfville. As most of the thousands of migrating Semipalmated Sandpipers migrating from the Arctic to the Minas Basin and then on to Suriname and Brazil stage in James Bay, it's also possible to speculate that *our* bird was one of the James Bay breeders that got caught up in that flock.

The species has been reported in Nova Scotia about 37 times,

mostly single individuals, but on one occasion a flock of about 25 on Cape Sable Island. Most have been in the month of September.

Other recent sightings in the Valley area have included one at the Windsor Sewage Lagoon in September 2003 and one in the company of a Willet at The Guzzle, Grand Pre, in the fall of 2010.

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NATURAL HISTORY

The Mouse's Tale

by Barry Yoell

THE MOUSE'S TALE (1)

A HOT July afternoon in 2008, one of many, and the hanging flower baskets were crying out for water. Several, the fuchsias in particular, hung under the eaves of our house and were thus sheltered from the little rainfall we had had. I methodically worked my way, soaking them all. The largest of the fuchsias, just outside the kitchen window, was almost overgrown by clematis and honeysuckle and appeared to have collected a load of old leaves. I poked them away with the watering can's spout. Suddenly a mouse sprang from the leaf ball, just as the leaves, now obviously a nest, fell at my feet and opened up to reveal a clutch of baby mice. It took only seconds for



BRIAN MCKIBBIN

the mother mouse to scamper down the vines to the nest, and she ran around, extremely agitated, over my feet, around my legs, chattering incessantly.

Now, I am no great mouse enthusiast, but I felt that I had to help this little family, but at the same time remove it from the immediate proximity of our house. So I picked up the nest with the babies and carried them about 150 feet up the driveway, mother mouse running alongside, and I set the nest and babes down near the woods.

The mother immediately grasped one of the young by the scruff of its neck and ran into the woods. She rapidly returned and repeated the journey until she had taken all four into cover. I presumed that she would now remain in the woods with the babies, but she came back out onto the driveway, very agitated, and in spite of my enthusiastic cajoling her to get back into cover with her babies, she refused to leave me.

At this point, my wife, Elizabeth, shouted to me that there was another baby mouse in the remnants of the nest by the house. I ran back and brought it to where I had deposited the others. Mother mouse was still running around on the driveway, but as soon as she saw this last baby, she picked it up and disappeared into the forest, never to be seen again.

It appears that this mother mouse knew exactly how many offspring she had. She could count to five. Also, she had overcome her natural fear of humans and had bravely followed and rescued her family. She deserves a medal!

THE MOUSE'S TALE (II)

I am a young White-footed Mouse (*Peromyscus leucopus*), mother to five, my first family. Naturally, I am very proud. As you probably know, we *P. leucopus* are fastidious, and I keep our children and nest extremely clean and neat. My husband and I (and we are a true pair – a relatively rare occurrence among small mammals) found the perfect nest site in a hanging basket under the eaves of a human (*Homo sapiens*) home. It is protected from the sun and rain, well camouflaged by the vines (clematis and honeysuckle) and inaccessible to most of our potential predators. An ideal site for our newborns.

You can imagine my horror and surprise when one of the *H. sap*♂ attacked our home with a long green water-spewing device. He tore our nest out of its basket and flung it on the ground, exposing our babies.

Within a heartbeat I was down onto the ground with the babies, buzzing and squeaking and drumming the ground with my front feet. The *H. sap*♂ used his immense strength to pick up the nest and babies and rushed away from the house, with me struggling to keep pace and maintain my harangue. I think he became a little frightened by my persistence and soon put down the nest and babies. I wasted no time in carrying them into cover, taking them one at a time. Sadly, the stupid *H. sap*♂ had only brought four of the babies, so I continued to scold him.

Suddenly *H. sap*♀ called something unintelligible from their house, and the *H. sap*♂ rushed away and returned almost immediately with my darling number five. Naturally, it was only a moment before we rushed to the other four, and I was able to reassure them all. After a few minutes suckling we all felt better and set about establishing a new nest in the woods.

It will be a frosty Friday before we venture back to that human home!

And the *H. sap*♂? He deserves a kick in the pants.

Fall Weather 2012, Eastern Annapolis Valley, plus Hurricane Sandy

Larry Bogan, Cambridge Station

WE had a warm and relatively damp autumn this year. The earliest part of the season was the warmest, and as we approached winter, daily temperatures more closely matched more normal values. October and November appeared to be sunnier and drier than September.

	Temperature			Precipitation
	Max (°C)	Min (°C)	Mean (°C)	Kentville (mm)
September 2012	21.2	10.7	16.0	173.0
(30 yr. average)	(19.4)	(9.2)	(14.3)	(87.0)
October 2012	15.3	6.4	10.9	96.0
(30 yr. average)	(13.4)	(4.5)	(9.0)	(96.0)
November 2012	7.5	-0.3	3.6	54.0
(30 yr. average)	(7.5)	(0.1)	(3.8)	(117.0)
Season	14.7	5.6	10.2	322.0
(30 yr. average)	(13.4)	(4.6)	(9.0)	(300.0)

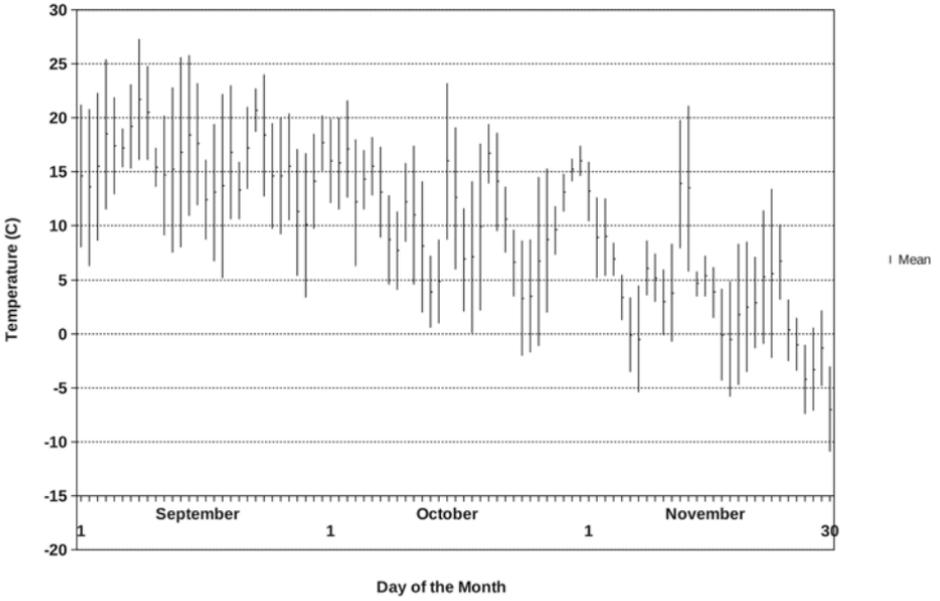
Source: Environment Canada data for Kentville, NS (<http://weatheroffice.gc.ca>) and Canadian Climate Normals and Averages (Kentville).

TEMPERATURES

September and October were 1.8°C and 1.9°C above their average temperatures, respectively, and only November was near normal.

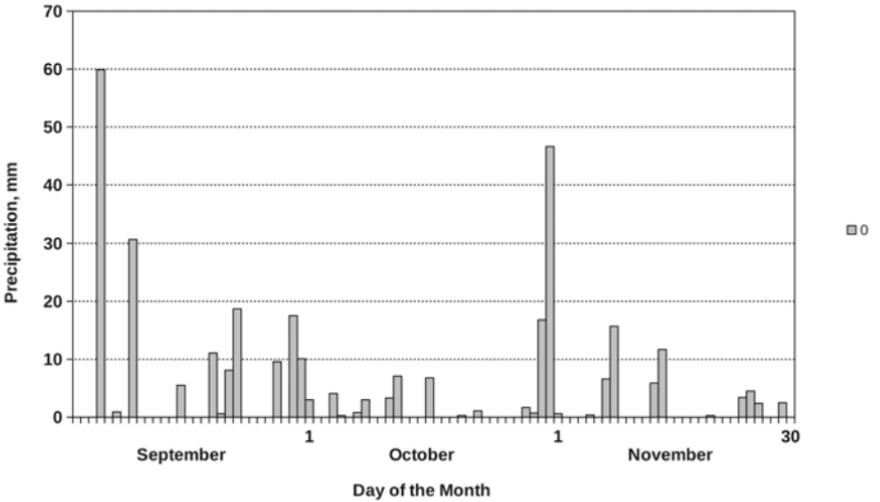
Daily Temperatures - Kentville, N.S.

Sept, Oct, Nov 2012



Daily Precipitation - Kentville, N.S.

Sept, Oct, Nov - 2012



As a result, the season was generally warmer, averaging 1.2°C above average. This downward trend made the chart of temperature versus days show a steeper decline in temperature during the autumn than we normally see. In early September we had four days above 25°C, and by the end of November we had two days never getting above freezing. The low on the last day of November reached -11°C at Kentville.

RAINFALL

We had 322 mm of rain during the season, 22 mm more than the average. September contributed 173 mm or 54 percent of the total. October had a normal rainfall amount, but November received only 46 percent of the average. Most of the rainfall in October occurred in the last few days of the month when the remnants of storm Sandy came through. The only snow fell late in November, and that was only a couple centimetres.

TROPICAL STORM SANDY

The system that gave us the nice weather in October had a role to play in the behaviour of tropical storm Sandy, which did much damage on the eastern seaboard of the USA during October 29–30. The Annapolis Valley received 64 mm of rain on the last three days of October, part of which was from the remnants of Sandy. That was two-thirds of the rainfall for that month.

As Sandy was moving north from the Caribbean where it was spawned, we were having a marvelous string of good weather: clear skies but cool temperatures. We were under the influence of a strong high-pressure system, which was one of four factors that caused the giant storm to hit the New Jersey shore with so much force:

(1) Storm formation was during the active Atlantic hurricane season, June 1 to November 30. Sandy moved north across the eastern end of Cuba as a hurricane and entered the Atlantic Ocean. (2) Temperatures of the Atlantic waters were 3°C warmer than normal, a fac-

tor that enhanced the storm strength farther north than usual. (3) A long, large low-pressure trough stretched down from central Canada, joined the storm, and fed the western side of the storm. (4) The jet stream that normally flows directly west to east was diverted by a combination of the trough, the storm, and the high-pressure system to flow south around the storm and then north and west around the storm. These forces moved Sandy onshore in New Jersey rather than allowing it to move out into the Atlantic or north to the Maritimes where Atlantic storms usually go.

The tropical storm was very damaging because of several other factors: (1) It was Full Moon (Oct 29), and the second highest tides of the month were occurring when the storm came ashore. (2) The storm accelerated when it turned west. (3) The New York City area was north of the counter-clockwise circulation of Sandy and on the windy side of the storm. (4) The shape of New York Harbor helped increase the storm surge from the southwest winds. (5) The huge size of the storm meant that it took a longer time for the storm to pass, and more damage took place. (6) The extremely low pressure over a large area contributed to a higher-than-normal storm surge.

Sandy was not the most powerful storm to hit north of Cape Hatteras. Its lowest pressure was 94.01 kPa, while Gladys in 1977 was lower, at 93.90 kPa. The 7.5 million power outages caused by the storm were about the same as Hurricane Ike (Sept 2008).

Some maximums related to Sandy:

- Integrated kinetic energy of about 140 terajoules (2nd only to Hurricane Isabel (2003); Katrina was 120 TJ)
- Snowfall of 66 cm in Redhouse, MD
- Wind gusts of 152 km/h at Eatons Neck, NY
- Rainfall of 389 mm at Andrews AFB, MD
- Wave height of 12.1 m
- Storm surge above normal of 3.8 m at Kings Point, NY
- Storm Size 1500 km across (where winds were >65 km/h); compare Katrina, at 500 km

For more information, graphics, and videos on Sandy, see the NASA website: http://www.nasa.gov/mission_pages/hurricanes/archives/2012/h2012_Sandy.html

ASTRONOMY

What's in the Sky?

by Roy Bishop

HIGHLIGHTS FOR THE FIRST FOUR MONTHS OF 2013

January 2: Latest sunrise of the year, and Earth closest to Sun in 2013

January 10: At 7 a.m., the Crescent Moon and Venus are very low in southeast dawn twilight. A lovely sight in binoculars!

January 21: Late in the evening, the Moon is near Jupiter

January 26–27: Full Moon, and the coldest part of the year for Nova Scotia

February 1–20: between 6:00 and 6:30 p.m.: If the western sky is clear, with binoculars scan low near the horizon where the Sun has set. Mercury will be the brightest star-like object in that part of the sky. Mars lies close to Mercury from the 6th to the 10th (Mars is dimmer and pale orange in colour).

February 25: Full Moon

March 10: Daylight Saving Time begins

March 17: The waxing crescent Moon joins Jupiter and the Hyades in the evening sky (use binoculars)

March 20: Equinox (at 8:02 a.m. ADT)

March 27: Full Moon

March 28: Venus passes behind Sun (In 2012, on June 5, Venus passed directly in front of the Sun.)

April 25: Full Moon

April 28: Saturn at opposition

JUPITER THIS WINTER

Jupiter is the brightest star-like object in the winter evening sky. During January, February, and March, Jupiter resides within a binocular's field-of-view of the star Aldebaran (the bright, slightly reddish eye of Taurus the bull) and the open star cluster known as the Hyades (the face of Taurus). Jupiter and these stars will make a sparkling sight in binoculars on a frosty winter night. Hold your binoculars steady, and you may be able to spot one or more of Jupiter's four Galilean satellites, very near Jupiter.

THE STARS OF THE WINTER SKY

The winter mid-evening sky contains many bright stars, including Rigel, Betelgeuse, Bellatrix, Aldebaran, Capella, Castor, Pollux, Procyon, and Sirius. When viewing these stars and the many others in the same part of the sky, we are looking at the Orion arm of our Milky Way Galaxy. Our Sun with its planets resides on the inner edge of that arm, which is why those stars are so prominent in our winter sky. The light pollution of yard lights, towns, and cities obscures the stars, but from a dark country sky the view of the Orion arm is impressive, particularly so for the observer who is aware of this aspect of galactic geometry.

CHANGE AT THE EQUINOXES

March and September are the months of greatest change in the amount of daylight at our latitude. During March the days gain 1.5 hours of daylight; during September the days lose the same amount.

The change from one day to the next is greatest at the equinoxes, when Earth's equatorial plane, extended, intersects the Sun. From our geocentric perspective, we say "the Sun crosses the equator" at the spring equinox and again at the autumn equinox. It is the dramatic lengthening of daylight in March that drives the northward avian migrations.

SATURN

Saturn is at opposition, closest to Earth, on April 28, 73 light-minutes from Earth, with the north side of its rings tipped 18 degrees toward Earth. Saturn remains well placed in the late evening sky through May and June. Although much of Saturn's light (reflected sunlight) is from its rings, the unaided eye cannot make out the rings. Saturn looks just like a star. Even standard binoculars are inadequate. A telescope is necessary to see that celestial wonder. With good optics, a magnification of about 20x will just reveal the rings. At a magnification in excess of 100x on a good telescope having an aperture of 100 mm or greater, the view is exquisite. Although the first great telescopic astronomer, Galileo, examined Saturn in 1610, his telescopes were inadequate to clearly show the rings. It was the Dutch scientist Christiaan Huygens who, in 1659, first realized that a ring surrounds Saturn. It was the British physicist James Clerk Maxwell who, in 1857, proved theoretically that Saturn's rings must be composed of countless small satellites (icy rocks) independently orbiting around Saturn. We are very fortunate to be now living at another historic moment for Saturn. The robotic American/European spacecraft *Cassini*, since arriving at Saturn in 2004, is revealing the entire Saturnian system in unprecedented detail. See <http://saturn.jpl.nasa.gov/mission/introduction/>

JACK MCMASTER



Blomidon Naturalists Society

Box 2350, Wolfville, Kings County, NS B4P 2N5

Statement of Income, Expenditures, and Net Worth for BNS year 2011/12

at 30 September 2012 – and Budget for 2012/13

	Budget 2011/12	Actual 2011/12	Budget 2012/13
INCOME			
Blomidon Naturalists Membership Fees	\$3,500	\$2,960	\$3,200
Nature Nova Scotia Fees	120	100	120
Miscellaneous Sales	900	1,201	1,000
Within the View of Blomidon Sales	250	235	250
Calendar Sales	10,000	9,647	9,000
Donations	3,000	2,655	2,500
Funding for Young Naturalists (Green Dragon)	8,500	13,309	18,000
HST Rebate	1,100	1,288	1,200
Student Award from Endow. Fund (proposed)	2,400	0	2,000
	<u>29,770</u>	<u>31,440</u>	<u>37,270</u>
EXPENDITURES			
Administration	450	1,016	450
Meetings	600	266	500
Donations to Other Groups	300	530	300
Nature Nova Scotia Distributions	220	180	220
Calendar Costs	5,100	4,652	5,000
Nature Displays	150	0	500
Newsletters	3,950	5,439	4,400
Student Award (proposed)	2,400	0	2,000
Inventory Write downs	0	0	0
Inventory Purchases	0	0	0
Young Naturalists (Green Dragon)	20,000	16,893	21,000
Bank Charges	150	120	120
Other	0	0	0
	<u>33,320</u>	<u>29,096</u>	<u>34,490</u>
Excess (deficit)	<u>-3,550</u>	<u>2,344</u>	<u>2,780</u>

NET WORTH AS OF 30 SEPTEMBER 2012

Bank Account (5207570)	\$5,853
Endowment Fund (54YL48A)	\$65,710
Within View of Blomidon (470 @ \$11.30)	\$5,311
	<u>\$76,874</u>

NOTES

1. Paid membership 148; Honorary 14; Newsletter mailing 230
2. Green Dragon 2013 budget reflects extending from 10 weeks to 12.
3. Funding for Green Dragon must be increased by \$4,000 to fund extension.
4. Membership fee increase for 2014 under consideration.



BRIAN MCKIBBIN

SOURCES OF LOCAL NATURAL HISTORY

Compiled by the Blomidon Naturalists Society

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

BLOMIDON NATURALISTS SOCIETY

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 and will receive FNSN News, the federation newsletter. (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.





Lumsden Pond in winter – ANDREW STEEVES