

Blomidon Naturalists Society



SPRING 2011 NEWSLETTER

Volume 38 · Number 1



❁ 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

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BNS Newsletter

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BLOMIDON NATURALISTS SOCIETY
members are encouraged to share unusual or
pleasurable nature stories through the pages
of the *BNS Newsletter*. If you have a particular
area of interest, relevant articles and stories
are always welcome. Send them to Jean Timpa:

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Digital photographs should be submitted to
doug@fundymud.com

**Submission deadline for Summer:
June 10, 2011**

Out and About

Jean Timpa, editor

THE winter of 2011 has been one of our discontent here in Wolfville. Locally we lost talented naturalists Merritt Gibson, Sam Vander Kloet, and Joan Bromley within a few weeks of one another.* Our sympathy goes out to all their family members and friends.

Internationally, natural disasters of biblical proportions have made us feel as though we were living through horror movies. Our own came on the night of December 13 when a very bad wind/rain storm tore through Nova Scotia, hitting the Annapolis Valley especially hard. The next morning trees were one of the obvious casualties, our forests and residential plantings having been very hard hit. As time went on, those of us who feed birds on a regular basis in the winter were asking, “Where are all the birds?” We’ll never know for sure, but the numbers were suddenly very small, and some of us suspect they met with terrible fates, too, that night. As I write this on the fourth of April, the piles of snow are long gone and the crocuses are blooming. We hope fervently for gentler times this spring and summer.

Although some companies and institutions have been given permission to burn biomass here in Nova Scotia, there is still a great deal of opposition to it. It is touted as a “green” solution, which is a total lie, as anything that is burned increases the carbon dioxide content of our atmosphere; wood and other plant materials are about as “messy” as anything that can be burned for fuel, except, perhaps,

*A celebration of Joan’s life will be held at Willow Park on August 13, and a celebration of Sam’s life will be held August 26 at Acadia (watch the media for details).

peat and soft coal. Green trees left alive have many more important uses than being turned into particulate matter. Wood smoke is a well-known carcinogen. Brown, eroding clearcuts are no longer useful, but a liability to us. Keep the pressure on those who should know better but who don't seem to have the will to stand up for our most important air filters!

A great many thanks to all who have helped various BNS functions over the past few months. Every little bit of attention to detail helps so much. Thanks and welcome also to those of you who have joined us as new members, and to faithful members who have brought new people to our programs and field trips. Attendance seems to have been quite good lately despite a lot of ice, snow, and wind in February and parts of March. When you come out to our events, try to bring someone with you, as they are always welcome. Ideally we would like to have at least 30 more members. Please let any of the executive know if you are willing to lead field trips, present a program, or help in other ways.

NOTICE

Green Dragons 2011

THE Blomidon Naturalists Young Naturalist Program is heading into its seventh year. Last summer over 600 kid days were spent enjoying nature in Blomidon and Smileys Provincial Parks, the Blue Beach fossil area, and the Harriet Irving Botanical Gardens. By all accounts it was a successful season, and we are planning for another one, bigger and better than ever. Partnerships will be made with local recreation and daycare organizations, students hired, and funding applied for. This is a \$20,000 project. Funding is always a challenge, so all donations from our membership are greatly appreciated.

Our Green Dragon program continues to be a great success, offer-

ing our future stewards of the environment opportunities to explore nature in a fun and educational way with the hope that they will gain an appreciation which they will carry with them throughout their lives. —HAROLD FORSYTH

CLUB NOTES

Board of Directors Report

by Rick Whitman, BNS president

YOUR board had a regular meeting on March 3. We agreed that the proposed bylaw revisions, as passed by the membership at the February meeting, were ready to be submitted to the Registry of Joint Stock Companies for review. This has now been done. We moved forward with plans to have a monthly column, “Blomidon Naturalists Notes,” in the local newspaper. Our newest director, Rachel Cooper, has volunteered to take the lead on these and will be the primary writer. She will be very open to input on topics for the column and will also appreciate offers from other writers.

We noted that the 2012 calendar committee will need one or more new members because of the unexpected loss of Merritt Gibson. We will work with Roy Bishop and Sherman Williams according to their wishes.

Ed Sulis reviewed our financial position, investment policy, and 2011 paid memberships to date. Letters and envelopes will be inserted in this Newsletter for those who are unpaid for 2011. This will be your last Newsletter without a 2011 paid membership. If you have received the reminder letter, you will see a little more documentation as to what BNS provides both to you and to the larger community. Seriously, membership is a bargain! Your board also plans to be more active at contacting former members and inviting renewal.

Patrick Kelly reviewed plans for monthly meetings and field trips over the spring and summer and plans for a program committee meeting (Patrick, Harold Forsyth, Sherman Boates). Feel free to speak with any of these folks about your ideas around our activities. We are in discussion with Acadia to see if we can have a more settled use of the auditorium in the Irving Centre for the fall meetings.

We were involved again, with two prizes, in the Annapolis Valley Regional Science Fair, with John Belbin as lead judge and contact. Murray Colbo and Jim Wolford worked with Wolfville Recreation to offer weekly hikes January–March to about a dozen students at Wolfville School. Harold Forsyth and committee are proceeding with applications for funds for the 2011 Green Dragon natural history summer program for children.

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, in the auditorium of The K.C. Irving Environmental Science Centre on University Avenue, Wolfville. Parking is available at Wheelock Dining Hall, along Crowell Drive immediately east of the Irving Centre, at the Acadia Arena, Festival Theatre, the Student Union Building, or on Westwood Avenue. Everyone is welcome. Unless otherwise posted, the April meeting will be in BAC241. Updates will be posted on the BNS website: www.blomidonnaturalists.ca

Monday, March 21, 2011 – *The Life & Legacy of Naturalist Mary Majka*, by Deborah Carr. Deborah Carr spent seven years researching and writing the biography of Mary Majka, one of our great Cana-



MARY PRATT

dian environmental pioneers, and learning many lessons for her own life through the process. She will be sharing a slideshow and some of her views on how a legacy such as Mary's is achievable for any of us. Following the talk, she will have copies of *Sanctuary: The Story of Naturalist Mary Majka* for sale at \$20 each.

Deborah has been a full-time professional freelance writer for over a decade, exploring diverse topics that range from Peregrine Falcons and shorebirds to caribou and salmon, from bakers and woodcarvers to taxidermists and fisherwomen. Her articles have appeared in such magazines as *Homemakers*, *Saltscapes*, *CARP*, *Outdoor Canada*, *Nature Canada*, *Wildlife Canada*, *Atlantic Salmon Journal*, and *Progress*.

She encourages others to explore the joys and rewards of writing through her own Nature of Words creative writing workshops. She also sits on the board of the Writers Federation of New Brunswick and serves as president of the Moncton Chapter, Professional Writers Association of Canada (PWAC). Her websites are www.deborahcarr.ca and www.natureofwords.ca, and she welcomes those interested to join her Facebook site.

Monday, April 18, 2011 – *The Nova Scotia Nature Trust: Protection Is Our Game*, by Dennis Garratt. The presentation covers the different ways that we protect land, our three major project areas (endangered

species, St. Marys River, coastal), and some of the many interesting characters that I have met in my day-to-day work. [Meet in BAC 241].

Hailing from England, Dennis has been interested in wildlife from an early age. His passion for birdwatching has taken him the length and breadth of the British Isles, abroad, and recently to Nova Scotia. His first break into higher-level conservation work was with the Scottish Wildlife Trust, where he worked for 11 years, at one point jointly managing all the wildlife reserves across Scotland. Then Dennis moved due south to Hampshire, where he worked for the Hampshire & Isle of Wight Wildlife Trust for 10 years. Dennis has been working for the Nova Scotia Nature Trust for two and a half years.

Monday, May 16, 2011 – *Flying Squirrels*, by Rachel Thibodeau. Flying squirrels may be good indicators of landscape connectivity because they need mature trees to climb for gliding and to sleep in during the day. To understand their connectivity requirements in Nova Scotia, we need local life history data to determine how long they live, how many young they have, and how they disperse. With this project, live-trapping, passive integrated transponder (PIT) tags, and nestboxes were used to collect life-history data for flying squirrels. A PIT tag – a small glass microchip inserted under an animal’s skin – provides the time, date, and unique code for the animal when it passes through a circular antenna.

Rachel Thibodeau grew up in Montreal, and when she was young she liked to go outside the city and play in the forest. She studied for three years in a program called techniques in applied ecology at the Sherbrooke CÉGEP, where she graduated in 2009. In school, she had a chance to work with birds, fish, plants, reptiles, amphibians, and small mammals. For a required internship, she decided to come to Nova Scotia to work on the ribbon snakes and Blanding’s turtles (it is here she really started to talk in English). She enjoyed it so much that she decided to return and is living here now. She spent all last winter monitoring the flying squirrel.

Monday, June 20, 2011 – TBA

FIELD TRIPS

Unless otherwise indicated, all field trips will begin at the Wolfville waterfront. Everyone is welcome.

Saturday, April 16, 2011 – *Pond Life Through a Microscope*. Todd Smith (todd.smith@acadiau.ca) and H el ene d’Entremont of the Department of Biology at Acadia University will lead this popular indoor field trip to observe the fascinating and incredible diversity of living organisms found in pond water. Individual microscopes and one connected to a digital projector will be set up in a lab in the New Biology Building from 1 to 3 p.m. You can expect to see representatives of many groups of organisms, including bacteria, algae, diatoms, ciliates, flagellates, hydras, flatworms, roundworms, rotifers, annelids, crustaceans, and insects. Meet at the east doors of the New Biology Building and follow the signs.

Saturday, April 30, 2011 – *Wolfville Area Birds*, led by Angus MacLean (679-5878, angusmcl@ns.sympatico.ca) and Patrick Kelly (472-2322, patrick.kelly@dal.ca). This will be a joint trip with the Nova Scotia Bird Society, pond hopping for ducks and early migrants. Possibly there will be a visit to Wolfville Ridge first for Barred Owls. Meet at the town wharf off the east end of Front Street in Wolfville at 10 a.m. Dress warmly and bring a lunch. No rain date.

Friday, May 6, 2011 – *Astronomy Observing Session*. Join members of the Minas Astronomy Group to observe the night sky. There will be a waxing crescent Moon in the west. Saturn will be well up in the southeast. Meet at 9:30 p.m. at the old parking lot at Grand Pr e National Park. Bring binoculars and be sure to dress warmly. Cloud/rain date is two evenings later: Sunday, May 8.

Sunday, May 15, 2011 – *Cape Split Hike 2*. For those who want to do the migration count on Saturday, Jim Wolford (542-9204) and Pat-

rick Kelly (472-2322) will lead a second Meet at the Wolfville waterfront at 8:15 a.m. or at the start of the trail in Scots Bay at 9 a.m.

Saturday, May 7, 2011 – *Herbert River Canoe Trip*. Patrick Kelly (472-2322, patrick.kelly@dal.ca) will be leading this trip. The Herbert River is fairly easy, with lots of water at this time of the 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 9:30 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.

Tuesday, May 10, 2011 (and every Tuesday until August 23) – *Acadia University Woodland Trail Biodiversity List*. For a fifth year we will take a walk every Tuesday evening throughout the spring and summer to look for flowering plants, nesting birds, fungi, butterflies, dragonflies, etc. This is a long-term project to observe the changes in biodiversity over the seasons and over the years, and is done in cooperation with the K.C. Irving Environmental Science Centre. Everyone is invited to participate. Come for one week or every week. You don't need to be an expert; we need lots of people to help spot and identify the different forms of natural history. Some weeks we will have a special leader with an emphasis on a specific area of natu-

ral history. If you would like to lead a walk or be on one with a particular emphasis, call Melanie at 585-1916. Meet at 6:30 p.m. at the main entrance to the Harriet Irving Botanical Gardens on University Avenue.

Saturday, May 14, 2011 – *Cape Split Hike*. Make a trip to Cape Split with leaders Jim Wolford (542-9204), Sherman Williams (542-5104), and Patrick Kelly (472-2322). There will be interpretive stops along the way. Spring wildflowers and birds should be abundant. This walk requires good footwear, and people are reminded to stay away from the edge of the cliff. You should bring water with you and a lunch, as we usually don't get to the end of the trail until lunch time. Meet at the Wolfville waterfront at 8:15 a.m. or at the start of the trail in Scots Bay at 9 a.m.

Saturday, May 14, 2011 – *Nova Scotia Spring Migration Count*. Come and participate in this worthwhile project. It's a wonderful way to get out for a day's enjoyment while discovering possible rarities visiting the Valley. Annapolis Valley coordinators:

<i>Hants West:</i>	Patrick Kelly (Falmouth) 472-2322 patrick.kelly@dal.ca
<i>Kings County:</i>	Larry Bogan 678-0446 larry@bogan.ca
<i>Kings County (Kingston area):</i>	Sheila Hulford 765-4023
<i>Annapolis County:</i>	Chris Pepper 829-3478 cpepper@ymail.com

Anyone interested in helping coordinate Annapolis County or parts thereof as a regional representative would be most welcomed by Chris.

Monday, May 23, 2011 – *Historic Hants County*. This Nova Scotia

Bird Society field trip, led by Suzanne Borkowski (445-2922, suzanneborkowski@yahoo.ca), will start at 8 a.m. in the parking lot of Mount Uniacke Estate Park. (Those wishing to carpool should meet at the Wolfville Waterfront and leave by 7 a.m. to ensure they arrive on time.) The main gate will be locked, but the second gate (coming from Halifax) will be open. The trip will start by exploring some of the grounds at Mt. Uniacke and then continue along back-country roads through Hants County. Bring a lunch to be enjoyed at Smileys Park. No rain date.

Sunday, May 29, 2011 – *Blomidon Provincial Park*. Jim Wolford (542-9204, jimwolford@eastlink.ca) will lead a walk from the campground about 2 km to a seasonal pond that has the very rare and beautiful fairy shrimp. Other pond life, spring plants/flowers, and birds will also be seen. We will visit a lookoff facing Five Islands Park across the Minas Basin. BNS members can meet and carpool from the Waterfront Wolfville at 9:15 a.m. or meet Jim at the Blomidon Park registration building at 10 a.m.

Saturday, June 4 – *Native Plant Sale*. The Friends of the Acadian Forest will be hosting a sale of native plants at the Harriet Irving Botanical Gardens at Acadia University from 9 a.m. to noon. Buy native plants grown by volunteers from seed collected in the gardens and from local nurseries. There will be a variety of trees, shrubs, and perennials available, as well as information tables and displays. Proceeds will be used by the Friends of the Acadian Forest Society to work toward forest conservation and education. Don't miss this great annual event in the Walled Garden and Conservatory at the Botanical Gardens.

Friday, Saturday, Sunday, June 3–5, 2011 – *Nature Nova Scotia Annual Conference and AGM*. Nature Nova Scotia (Federation of Nova Scotia Naturalists) will be holding its annual meeting and conference at the Gaelic College in St. Anns, near Baddeck on Cape Breton. This

is a great opportunity to meet old friends and make new ones while enjoying and learning about a piece of natural Nova Scotia. Watch the NatureNS website (naturens.ca) for details.

Saturday June 18, 2011 — *Herbert River Trail*. Patrick Kelly (472-2322, patrick.kelly@dal.ca) will be leading this easy walk for the Nova Scotia Bird Society. It follows the rail bed of the former train line from Windsor to Truro via Kennetcook and runs along the Herbert River for a good part of its length. Apart from the birds it is also a great walk for spotting floodplain vegetation. 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. Bring insect repellent. We should be done by lunch. Rain date Sunday, June 19.

Saturday June 25, 2011 – *Beginning Birders Trip, Windsor, Hants County*. Leader: Patrick Kelly (494-3294 (w), 472-2322 (h), patrick.kelly@dal.ca). **Limited registration – pre-registration is required.** These trips are geared for those who have always had an interest in bird watching but were not sure how it was actually done. Bring binoculars and field guides, if you have them. Meet at 9 a.m. at the parking lot for the Windsor Tourist Bureau, which is just north of Exit 6 (Water Street) on Highway 101. We should be 1–2 hours and will visit a few different types of habitat in the town of Windsor. No storm date for this trip.

Friday, August 26 – Sunday, August 28, 2011 – *Nova East 2011*. 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. With the 2009 event shortened and the 2010 event cancelled by hurricanes, hopefully this year's version will actually take place as planned! 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

Stories Written in the Snow

by Soren Bondrup-Nielsen

FEBRUARY 2011 – January and February this year have been two excellent months for snow cover. I have been out skiing or snowshoeing just about every day. I just love getting out in winter and reading the stories written in the snow. A Least Weasel pursuing and killing a vole and then dragging it off comes alive to us in the snow.

The snowshoe field trip this year had excellent conditions. It was about minus 5, so the 16 people who showed up did not get too cold. It had snowed two days before, so there was a lovely layer of fresh snow on the ground; the landscape was a pristine white. The only downer, and this was a major one since we were out to look at tracks, was that we only saw tracks from a canid, either a local dog that had been out for an early morning solitary walk or a coyote; their tracks really cannot be told apart. We didn't even see tracks from a Red Squirrel.

I have been leading these winter outings for some years now. Up until 2007, weather conditions were hit and miss; more outings were cancelled than not. But since then, each February seems to have had

consistently great conditions for the two-hour walk on snowshoes looking for tracks in the snow and talking about survival strategies in winter. Since 2007 I have been taking folks over to the Gaspereau Valley, and we have followed the trail on the south side of the Gaspereau River starting at the ball diamond just where the Black River Road to Lumsden Dam starts its climb up South Mountain. The woods along there are just so beautiful with their characteristic old-growth Acadian forest. There are huge Hemlocks, Red Oaks, Sugar Maple, and White Ash growing on the slope, and right at the start of the trail there are some Ironwood, or Hop Hornbeam. Bernard Forsythe has some Barred Owl boxes in there, and there is an isolated population of Southern Flying Squirrels, which was first discovered when Mark Pulsifer, an Acadia student, studied the content of the owl boxes and found remains from these squirrels.

Since 2007 I have been able to point out the tracks from Red Squirrels, Mink, Least Weasel, Deer Mice, Red-backed Voles, Shrews, Porcupine, Coyotes, and even a Bobcat. There seems invariably to be a lot of activity in these woods, so I am at a loss to explain what happened this year. Had we waited another day there might have been tracks.

Aside from looking for tracks, I always bring a shovel so I can dig a pit in the snow and talk about snow profiles and point out the sub-nivean space under the snow where small voles and mice run about and feed in relative safety from weasel predators and where the temperature varies only slightly from near freezing despite the air temperature.

The highlight of the trip this year was when we parked the cars a Meadow Vole was disturbed and it ran under one of the cars and hid. The poor vole had been feeding on the exposed grass along the roadside, and when we arrived it could not find its tunnel to safety. When we got back out after the two-hour hike everyone saw the vole again.

Hopefully next year will again have excellent snow conditions, but with the usual amount of diverse tracks.

Maritimes Butterfly Atlas

by John Klymko

THE Maritimes Butterfly Atlas is an Atlantic Canada Conservation Data Centre lead citizen science project documenting the distribution of all butterfly species in the Maritimes. The first year of the project, 2010, was a great success, with over 80 participants submitting nearly 2,500 records.

The most exciting finds of the year were Dorcas Copper in Nova Scotia and American Snout in New Brunswick. A colony of Dorcas



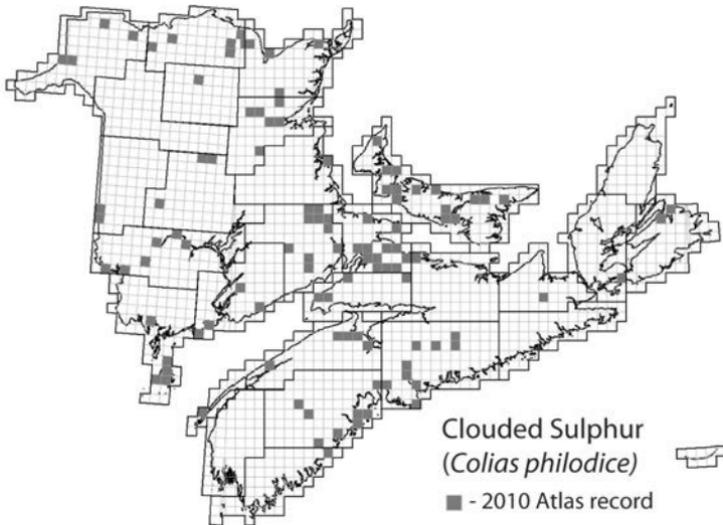
JOHN KLYMKO

Bronze Copper, a rare Maritime species documented by the Maritimes Butterfly Atlas.

Copper was found by Sean Blaney and David Mazerolle near Lake Ainslie in Cape Breton. This is the first record of the species in Nova Scotia. The only other known Maritime locations are in Carleton County, New Brunswick. This find suggests that focused searches of other suitable habitats, rich wetlands with an abundance of butterfly's food plant, Shrubby Cinquefoil, could lead to the documentation of other new populations.

Two American Snouts were recorded in New Brunswick, one near Edmunston by Richard Migneault, and one in Fredericton by Anthony Thomas. These are the first New Brunswick records of the species. American Snout is a southern vagrant that often wanders north, regularly reaching southern Ontario. However, it is extremely rare in the Maritimes, the only other occurrence being a 1994 record from Brier Island.

Nova Scotia had 976 records of 56 species. By far the most com-



Map showing Clouded Sulphur records for 2010.

monly recorded species were Clouded Sulphur, Cabbage White, and Red Admiral, with 140, 86, and 64 records, respectively. There were 95 records of 20 rare species (species with a provincial rank [S-rank] of S4 or below; see www.accdc.com/butterflyatlas/Checklist.html for the ranks of Nova Scotia species), most representing new locations. Some of the most interesting finds included Jutta Arctic (s1) found by Kathleen Spicer at Apple River, Bog Elfin (s1s2) found by Blake Maybank near Mount Uniacke, and Milbert's Tortoiseshell (s2) found at Lakeville, Kings County, by Linda Brown and Grace Kelly.

The Maritimes Butterfly Atlas is a five-year project that is always looking for new volunteers. If you have photos or specimens of butterflies taken in the Maritimes in 2010, please consider submitting them. If you would like to become a participant for the Atlas in 2011 please contact the Atlas director, John Klymko (jklymko@mta.ca or 506-364-2660). If you would like more information or want to peruse the 2010 results that will be posted in early spring 2011, please visit www.accdc.com/butterflyatlas.html.

The Atlas is made possible through funding from Environment Canada's EcoAction Community Funding Program and from the Gosling Foundation.

NATURAL HISTORY

Carnivorous Plants of Nova Scotia

by Martin L. H. Thomas

CARNIVOROUS plants are often called insectivorous plants, but since these fascinating species catch and digest a wider range of animals than just insects the term “carnivorous” is more accur-

ate. One might think that flesh-eating plants are rare, but worldwide this adaptation is found in over 600 different species belonging to 9 families. Three genera of carnivorous plants are found only in North America. One might expect that such an unusual adaptation might have arisen well back in the past as a single species and then have evolved to form many other species; however, this is not so. Carnivory has evolved independently in several different groups of plants. They do have one feature in common: all flesh eating plants live in nutrient-poor environments where nitrogen compounds essential to growth are in very short supply. These plants capture their prey not for their food energy value but to get a supply of inorganic plant nutrients.

If we look at carnivorous plants in general we find that there are five different methods used to catch the prey. SNAP TRAPS have leaves that rapidly fold to encase the prey when sensitive trigger hairs are touched. The leaves have stout, fang-like hairs around the outer edges that form a cage when the leaf folds. This type is represented in North America by the Venus Fly Trap, *Dionaea muscipula*. They live in the south but are often sold as house plants. The second type is PITFALL TRAPS, represented here by the pitcher plants, the *Sarracenia* species. The tubular leaves have a slippery interior and a pool of water containing digestive enzymes at the base. Prey entering the leaf cavity often just slide down into the water. The third type of trap has leaves with very STICKY MUCILAGE, which in many examples appears as shiny droplets that attract flies. Two different types of plant in Nova Scotia use this method: the sundews, *Drosera* species, and Butterwort, *Pinguicula*, with a single species, *Pinguicula vulgaris*. The largest group of carnivorous plants found here use the SUCTION TRAP method to capture prey. These are the bladderworts, *Utricularia* species, which bear tiny underwater bladders with a small opening surrounded by sensitive hairs. When a tiny animal touches the hairs, a trapdoor opens, the bladder increases in size and the prey is sucked in. The prey may be any type of small water animal. The last type of carnivorous plant is the LOBSTER-POT TRAP; these plants of the genus *Genlisea* are absent from North America. They



trap their prey with special hollow, underground leaves that have an opening lined with flexible inward-pointing hairs. Prey that crawl in are unable to make their way out.

Probably the best known carnivorous plants of Nova Scotia are the sundews. They show up because the droplets of sticky mucilage twinkle in sunlight and attract insects. The leaves, which are often reddish in colour, either fold or roll around the prey when one is trapped. The inner body of the insect is digested and absorbed while the outer covering remains as an empty husk. There are three species here: the very rare Thread-leaved Sundew, *Drosera filiformis*, with long, thin leaves; the Narrow-leaved (or Spoon-leaf or Spatulate-leaf) Sundew, *D. intermedia*, which is uncommon; and the Round-leaved Sundew, *D. rotundifolia*, which is quite common. The Butterwort, *Pinguicula vulgaris*, is exceedingly rare and found only at a few sites in northeast Cape Breton.

The pitfall-trap carnivorous plant that most people have seen is the Pitcher Plant, *Sarracenia purpurea*. It is common in many wetlands throughout the province and has a very beautiful flower held



high on a robust stalk. In addition to a very slippery coating inside the pitcher, it has downward pointing hairs, which further discourage climbing out. If you look inside the pitcher, the fluid shows the remains of trapped and digested prey.

The most diverse family of carnivorous plants found here is the bladderworts. Ten species have been recorded from Nova Scotia as well as one hybrid. All the bladderworts are aquatic or live in very damp places. Most have their bladders on leaves floating in the water. Others have bladders in mud or water-soaked sand. In some, the bladders are very difficult to find. Many species have very showy flowers projecting above the water or soil. They range in colour from yellow to light purple. In some locations the flowers are so numerous that they form brilliant patches of colour. Bladderworts range in occurrence from very common to very rare, and several form an important component of the Atlantic Coastal Plain flora.

NATURAL HISTORY

Blue Jay: The Best Forester Ever

by John Belbin

There's more to a jay than any other creature. You may call a jay a bird. Well, so he is, in a measure, 'cause he's got feathers on him and he don't belong to no church perhaps, but otherwise he's just as much a human as you and me.

MARK TWAIN

THE area we live in was covered in a mass of ice for millions of years that stretched all the way down to New Jersey. When it finally melted some 14,000 years ago it left a blasted and barren landscape. Nothing grew here. Within about 1,000 years some trees appeared and in less than 3,000 years we had oak woods and other hardwoods. How did this happen? It is one of the great mysteries of

ecology. Oak seeds are acorns – large, heavy, and immobile, they don't fly or drift. They must be moved by an animal to reach a new area. Squirrels certainly can't do it; they do bury nuts but only within about 20 metres of the parent tree, actually increasing the competition for resources. If we relied on squirrels and other rodents we'd still be waiting. Acorns are incredibly important, providing food for a huge number of birds and animals, especially the deer. Some calculations have shown that oak trees would have had to migrate about 100 metres per year in order to get here – a pretty good clip for a massive tree anchored by its roots!



JOHN BELBIN

Enter the boisterous, bullying, obnoxious, loud, greedy, highly intelligent, and almost human bird, the Blue Jay – one of those corvids (crow family) we all love to hate. Blue Jays love acorns and almost any other nut. They will steal every peanut you put out and raid your feeders mercilessly before other “more desirable” birds can get there. They are sly and stash huge numbers of nuts for use in the winter, some of which they never do find again. They don't trust each other, and they hide acorns when other birds can't see them doing it. They place them in relatively dry but well-vegetated locations, ideal for germination, up to 4 km from the parent tree. A single Blue Jay can move and stash as many as 5,000 acorns in a season. A family group can move a small forest. They also have a talent for picking the best and most fertile nuts, so that the probability of germination is greatly enhanced. Usually they are placed close to some landmark feature that the bird can memorize, such as a couple of very high spruce trees. In those areas many acorns are hidden, and a new grove of oaks is created.

The Blue Jay has created more of our woodlands than any other cause, moving and establishing beech and many other nuts as well

as oaks. They tend to change our pine woods into mixed forest. As we continue to fragment and destroy our forests the jay continues to replant desirable hardwoods. It may be taking better care of our environment than we are. Jays also eat a huge variety of obnoxious insects and other pests. They are one of the few species that will actually destroy tent caterpillars, and they appear to greatly enjoy doing so. They will even remove wasp nests and feed on the grubs.

Jays have received very bad press for years, much of that because James Audubon produced a famous painting showing three of them robbing a nest for the eggs of a song bird. This story is still passed on as a Blue Jay characteristic, even though modern studies have shown that that they rarely, if ever, do that. A detailed study at Cornell University revealed that only about 1 percent showed any evidence of eggs or birds in their stomach contents. Perhaps we shouldn't be so hard on this bird, even though it constantly yells at us from the woods.

REFERENCE: Johnson, W. Carter, Curtis S. Adkisson, Thomas R. Crow, and Mark D. Dixon. 1997. *Nut Catching by Blue Jays: Implications for Tree Demography*. University of Notre Dame.

CLIMATE CHANGE

Report Back from December's UN Climate Change Talks

by Thea Whitman

As I travelled to this year's UN climate change negotiations to join up with the team of 28 young Canadians from across the country who had fundraised to get to Cancún for the two-week confer-

ence, I didn't know what to expect. While last year's disappointments in Copenhagen seemed to have dampened enthusiasm for climate action and for the UN process, the lost time meant that there was even more urgency to coordinate a strong international effort to fight climate change.

The first commitment period for the Kyoto Protocol will be over in 2012, and we need an agreement in place as soon as possible to set out the next round of greenhouse gas reduction targets for developed countries – this time, including the U.S. – and to establish what actions developing countries will take. As well, we need to make progress on providing financing to developing countries for adaptation and mitigation, enabling the transfer of clean technology between countries and reducing emissions from deforestation globally. All this sounded like a pretty tall order for a conference established as being a “stepping stone” and where the utility of the UN process itself was being questioned. Furthermore, while undeniably beautiful, Cancún was a challenging choice as the location for a conference dealing with issues so deeply touched by the disparities between nations that are exemplified by the city's tourist industry. While the Canadian youth delegation stayed in a youth hostel downtown, most negotiators and civil society participants had to stay in all-inclusive beachfront hotel resorts normally devoted to providing extravagant excesses for vacationers and students on spring break, who are kept blissfully separate from any authentic Mexican culture in the hotels out on the “hotel strip.”

As it turned out, Cancún could be described as a moderate success. The “Cancún Agreements” are far from being sufficient in and of themselves, but there are many important steps toward progress. For those who wanted the Kyoto Protocol to live to see another day, and for all the Canadians at home who called and pressured our government to stand aside and keep the Kyoto Protocol alive – success. But for those who wanted an agreement whereby developed countries take on strong mitigation targets and commit to a second commitment period of the Kyoto Protocol, or even a goal for global emissions by 2050 – disappointment. For those who wanted deforestation

and forest degradation (REDD+) in developing countries addressed – success. But for those who wanted to see explicit protection of indigenous peoples’ rights or market mechanisms excluded from REDD+, and for those who hoped for some important improvements to forest-carbon accounting standards in developed countries – disappointment. For those who wanted to see the Green Climate Fund activated with strong board and transitional committee representation from developing countries – success. But for those who wanted the sources of financing the fund established – disappointment.

Most importantly, though, for those who wanted to rebuild trust between nations and sustain the UN process as the preeminent forum for negotiating climate change, thanks to inspiring work led by Mexican Foreign Affairs Minister Patricia Epsinosa to bring countries together in an open process to build consensus, this was a success (although Bolivia sees the Cancún Agreements as insufficient and opposed them). If Bolivia had succeeded in taking down the process, blocking any agreement coming out of Cancún, which is what would have happened had they had their way in the plenary during the final night of negotiations, it is certain that the UN process would have taken a very hard hit – maybe even a fatal one. As the sole process that is explicitly inclusive of almost all countries in the world, including those that will be hit hardest by climate change and those least responsible for causing it, it is so important that the UN climate change negotiations be sustained and legitimized.

Once again, Canada picked up the most Fossil of the Day awards, resulting in the Colossal Fossil award on the final day of the conference (for the fourth year in a row!), thanks to our obstructing the process of negotiating a climate deal and failure to implement domestic climate policies. It was disappointing to see Canada again fail to provide the sort of environmental leadership that we have in the past. This seems to be in keeping with our failure to gain a seat on the UN Security Council during the last round of voting; we are in the process of losing our reputation as an important player on the international stage and may be in danger of becoming irrelevant. If Canada’s regressive climate change policies persist, we might hope

that other nations do, indeed, stop valuing our country's voice. However, as we look forward to next year's conference in Durban, South Africa, I hope instead that Canada takes the necessary steps to return to its role as an international environmental leader. As a young person, I am extremely worried about not only my future but the future of people and ecosystems around the world. We may need to watch during the coming months to tell whether this latest round of talks should be called a success, but I desperately hope that this conference will have succeeded in setting the stage for a fair, ambitious, and legally binding international agreement next December.

Thea Whitman is from White Rock. She is working on a Ph.D. in soil science at Cornell University and has been a member of the Canadian Youth Delegation to the UN climate change negotiations for the past three years.

NATURAL HISTORY

Spring Weeds

by Melanie Priesnitz

*What is a weed? A plant whose virtues
have not yet been discovered.*

RALPH WALDO EMERSON

SPRING has arrived. Let the weeding begin. This is prime weeding season; perennial weeds are easy to spot as they are one of the few things green in the garden right now and they easily give themselves up in their weakened half-awake state.

There are a few weeds that you may want to let live to harvest later on in the season. Three weeds in particular – Stinging Nettle, comfrey, and horsetail – can be used to make a herbal tea-type fertil-

izer for your garden. The recipe is pretty simple: create an infusion by adding the leaves to a bucket of water and letting it sit in the sun. After a day, strain the leaves and use either as a foliar spray in a bottle or pour the concoction directly onto the soil surrounding roots.

Equisetum arvense, or Field-horsetail, commonly known as horse-tail or Bottle Brush, is a tough one to eradicate, as it reproduces through underground rhizomes as well as by spores. If you leave small pieces of the rhizome when weeding, you are actually invigorating the growth of the plant and encouraging it to sprout new growth. This is an ancient plant that is native to our region, and the chances of our winning the battle are pretty slim. So why not work with it instead of against it. This plant is useful in a fertilizer because it contains silica, which helps to strengthen plants. This substance is also why horsetail is resistant to chemical herbicides; the silica coating works to wick away liquids.

Symphytum officinale, or Common Comfrey, is a European herb that has escaped into the wild. Comfrey is high in phosphorus, magnesium, and potassium, making it a great fertilizer ingredient. Comfrey is found in the wild in Kings, Pictou, and Cumberland counties. It's also commonly planted in herb gardens for its medicinal properties.

Urtica dioica, appropriately called Stinging Nettle, is native to our region and is listed as a noxious weed under the Weed Control Act in Nova Scotia. If you've ever encountered this weed you will remember it, as it lives up to its name well and gives anyone who touches its coarse hairs a sharp sting. The positive side to this plant is that it's high in iron, sulphur, and magnesium.

There are many additional uses for some of our most common weeds. Just to name a few, sorrel makes a great salad green and dandelions can be made into delicious fritters. Remember, weeds are a state of mind. So instead of getting angry with your weeds this season, get creative!

For weedy recipes, including Japanese Knotweed pie, visit the website *Eat those invasives!!* (www.ma-eppc.org/weedrecipes.html).

2010 Wolfville Christmas Bird Count

by Alison Bogan

SATURDAY, DECEMBER 18 – We were blessed with near ideal weather for the count, with light winds, no precipitation, and benign temperatures that hovered around 0°C. The lack of snow made it easier to access areas but may have spread the birds out. There were 49 field observers and 80 feeder or yard observers. Field observers devoted 156 hours during daylight hours, with 2.5 hours owling. Feeder watchers spent almost 108 hours observing. The field observers travelled over 900 km, almost 20 percent on foot.

The final count was 67 species and 1 individual bird. Additionally, five species were reported during count week. Highlights were a Eurasian Wigeon seen during count week and highest numbers in the last 23 counts of Black Scoter, Hooded Merganser, and Northern Cardinal. Numbers of Herring and Black-backed Gulls, starlings, and crows continue to be far below the tens of thousands seen in the '90s, though they were seen in respectable numbers. A complete list of the observations, and the observers, may be found on the BNS website (www.nature1st.net/bns/files/count/cbc_w010.htm).

The count would be impossible without the help of many people. Thanks to Jim Wolford for organizing and collating results of the feeder watchers. Liz and Richard Stern once again extended warm hospitality by hosting the tally pot luck, and Judy Tufts again organized the food. And a big thank you to all the field and feeder observers, without whom we could not continue the tradition of one of the oldest Christmas Bird Counts in Nova Scotia.

2010 West Hants Christmas Bird Count

by Patrick Kelly, coordinator

SUNDAY, DECEMBER 27, 2010 – While it was a bit cool, it was a nice day and there was enough snow on the ground to remind you that it was winter but not so much that there was any impediment to walking.

Here is a list of all species seen. *Italic* indicates species for which just one bird was reported. Canada Goose 101, *Wood Duck* 1, *Eurasian Wigeon* 1, American Wigeon 25, American Black Duck 564, Mallard 43, Common Merganser 4, Ring-necked Pheasant 58, *Ruffed Grouse* 1, Bald Eagle 28, *Northern Harrier* 1, Sharp-shinned Hawk 2, Red-tailed Hawk 34, Rough-legged Hawk 2, Ring-billed Gull 35, Herring Gull 306, Great Black-backed Gull 46, Rock Pigeon 736, Mourning Dove 440, Downy Woodpecker 26, Hairy Woodpecker 22, Northern Flicker 9, Pileated Woodpecker 2, Blue Jay 328, American Crow 1,126, Common Raven 100, Black-capped Chickadee 485, Red-breasted Nuthatch 3, White-breasted Nuthatch 26, Brown Creeper 3, Golden-crowned Kinglet 15, American Robin 66, European Starling 2,657, Bohemian Waxwing 622, Cedar Waxwing 18, Pine Warbler 3, American Tree Sparrow 49, Chipping Sparrow 3, Savannah Sparrow 4, Song Sparrow 39, White-throated Sparrow 20, Dark-eyed Junco 346, Snow Bunting 21, Northern Cardinal 2, *Baltimore Oriole* 1, White-winged Crossbill 16, Common Redpoll 227, *Hoary Redpoll* 1, American Goldfinch 556, Evening Grosbeak 93, House Sparrow 274.

Total number of species seen 51; total number of individual birds 9,591; party-hours 70 (44 by car, 26 on foot); total distance covered 680 km (627 km by car, 53 km by foot).

There were no count week birds this year.

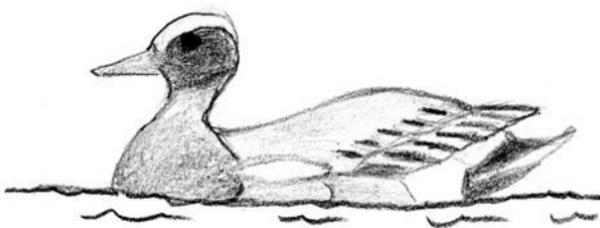
The total number of party-hours is up five hours from last year, although the total number of species is down (51 from 55), as was the total number of birds seen (9,600 versus 13,100). The main difference in species numbers is that no owls were detected this year. There is always some turnover in species from one year to the next. The total bird count is also lower, as the number of starlings was down by about 4,000 (not necessarily bad!). Starling numbers have always fluctuated wildly, from 1999 to 2000 the number counted dropped from 8,259 to 1,372, a trend that has obviously not continued.

This was only the second time that Wood Duck, Eurasian Wigeon, and Hoary Redpoll were seen on this count. Snipe has been seen on this count and this is only the fourth time a Baltimore Oriole was spotted.

As usual, I would like to thank all of those who helped in the field this year: George and Margaret Alliston, Suzanne Borkowski, Louis Coutinho, Gail Davis, Blake Maybank, Sheila and Neil Robarts, John Robertson, Barry Sabeau, David Simpson, Richard and Liz Stern, Jim Wolford, Everett Woolaver, and Frank Woolaver.

A thank you also goes to the Woolavers, who host the after-count potluck at their home each year. The count would not be the same without their generous hospitality.

I hope to see you next year.



EURASIAN WIGEON

MARY PRATT

30th Annual Cyril K. Coldwell Eagles & Raptors Count of Eastern King's County

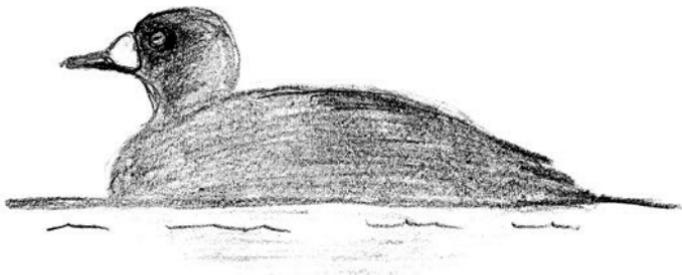
by Jim Wolford

SUNDAY, FEBRUARY 13, 2011 – Between 10 and 11 a.m., 28 people in 16 field parties were assigned areas that total approximately the Wolfville Christmas Bird Count circle plus Scots Bay. Weather conditions were pretty good, with excellent visibility except for very bright, blinding sunlight. Temperatures were -8 to -5 °C with a moderate northwest wind causing blowing snow in open areas. Dikeland roads were unplowed and undriveable, and there was still lots of snow on trees.

After 11 a.m., several of the counters assembled for coffee and muffins and nostalgic chitchat in the kitchen that used to belong to Cyril and Fran Coldwell, hosted today by their daughter Zelda Weatherbee, who lives next door and manages the old Coldwell house as Gaspereau B&B, at 920 Gaspereau River Road.

The count results are as follows:

- 179 Bald Eagles (109 adults, 67 immatures, 3 of unknown age)
- 35 Red-tailed Hawks
- 2(?) Rough-legged Hawks (seen by Lucas Berrigan at Grand Pré – Lucas was not part of our count).
- 2 Sharp-shinned Hawks (including 1 in JW's Wolfville yard in afternoon)
- 1 Merlin
- 1 Short-eared Owl (seen by Lucas Berrigan on bank of west Evangeline beach)
- 1 Barred Owl (photographed by Helen Archibald in her Canard yard just east of Jawbone Corner)



MARY PRATT

BLACK SCOTER

Other sightings: 1 mink, 6 Common Mergansers, 500 Black Ducks, 250 Canada Geese, 14+7+0 pheasants and one female pheasant with no tail, 15 ravens, 100+30+14+8 Horned Larks, 10+25 Bohemian Waxwings, 1 cardinal, 6 Snow Buntings.

NATURE COUNTS

Kingston, Nova Scotia, Christmas Bird Count – 2010

by Wayne Neily

DECEMBER 28, 2010, 07:00–17:00, 20:30–21:00. Kingston, NS 44°59'N 64°57'W (all points within a 24 km diameter, centre intersection of Bridge and Main Streets in Kingston, as described in 1969, to include Margaretsville, Dempsey Corners, Aylesford, Nicholsville, South Tremont, Nictaux Falls, and Middleton).

CONDITIONS: Temperature –5 to 0 °C; wind NW, 5–50 km/h; snow 15–20 cm deep; still water mostly frozen, moving water mostly open; a.m. overcast with snow flurries, p.m. mainly overcast with light to heavy snow.



ANN YOUNG

Yellow-throated Warbler

OBSERVER EFFORT: 111 observers, 23* in field in 10 parties (daytime), 88 at 59 feeders. Time and distance: 315.0 h* at feeding stations, 0.5 h and 5 km owling; total field party-hours 66.0* (day), and party-km 750.5 (day) (10.0 h and 12.6 km on foot, and 56.0 h and 737.5 km by car).

BIRDS OBSERVED: Canada Goose 32, American Black Duck 96, Mallard 233, Common Eider 6, White-winged Scoter 2, Red-breasted Merganser 3, Ring-necked Pheasant 23, Common Loon 1, Bald Eagle 10a, Sharp-shinned Hawk 4, Red-tailed Hawk 17, Rough-legged Hawk 2, Herring Gull 108, Great Black-backed Gull 5, Rock Pigeon 266, Mourning Dove 628, *Belted Kingfisher* 1 (4th record, E&JD), Downy Woodpecker 66, Hairy Woodpecker 55, Pileated Woodpecker 1, Canada (Grey) Jay 1, Blue Jay 368, American Crow 949, Common Raven 323, Horned Lark 26, Black-capped Chickadee 694, Red-breasted Nuthatch 28, White-breasted Nuthatch 55, Golden-crowned Kinglet 6, American Robin 8, European Starling 1535, Bohemian Waxwing 10, *Yellow-throated Warbler* 1 (1st record, photo, AY), American Tree Sparrow 9, Chipping Sparrow 1, Song

Sparrow 20, White-throated Sparrow 39, sparrow sp. 4, Dark-eyed (S.-c.) Junco 734, *Lapland Longspur* 1 (1st record, DC, KC, JC), Snow Bunting 4, Northern Cardinal 17 (H)*, Common Grackle 4, Brown-headed Cowbird 71, blackbird sp. 1, Common Redpoll 262, Pine Siskin 32, American Goldfinch 1143, Evening Grosbeak 8, House Sparrow 16.

Total species 48, total individuals 7929.

OBSERVED DURING COUNT WEEK BUT NOT ON COUNT DAY: Surf Scoter, Long-tailed Duck, Ruffed Grouse, Red-throated Loon, Red-necked Grebe, Double-crested Cormorant, Purple Sandpiper, Razorbill, *Short-eared Owl* (photo, L. Bouchard), Northern (Y-s.) Flicker, Brown Creeper, Savannah Sparrow.

OBSERVERS (FIELD): Brian & Mary Barkman, Ron Blackert, David Colville, Justin Colville, Keegan Colville, Claire Diggins, Ed & Joyce Dodd, Barbara & Patrick Giffin, *Shirley Harris*, *Sheila L. Hulford*, Brian Jones, Frances Lourie, Jacquie & Jonathan Muers, Gary Myers, *Wayne Neily* (compiler – 562 Messenger Rd., Tremont, R.R. 6, Kingston, NS, BOP 1R0, Neilyornis@hotmail.com), Daniel Penner, Twila Robar-DeCoste, Roger Short, Richard Stern;

OBSERVERS (FEEDERS): Spike Allen, Ron & Sharon Baker, Allison Bell, Gloria Blizzard, Bob & Karen Campbell, Tony Chaulk, John Collins, Cathy Crook, Kenneth & Avis Crowell, Tom & Betty Cushing, Ella & Howard Dalton, John DeCoste, Paul & Valerie Despres, Bea Deveau, Daniel Diggins, David Diggins, Jean Dixon, Joyce Elliott, Shirley Fahie, Nina & Robert Featherstone, Paul & Shilah Gertridge, Lloyd & Mary Lou Graham, *Carol & Leonard Gregory*, Sheila Gubernt, Mark Hamilton, Arlene Healy, Doreen Healy, Lilli Hand, Frank & Thelma Hawkins, Donna & Ron Hill, Patricia House, Marilyn Hudgins, Sibella Hulford, Michael Inkpen, Jack Keddy, *Don & Ruth Kelly*, Cathou Laroque, Andrea Leeson, Dave & Tonya Ludlow, *Patricia MacMillan*, Jason McInnis, Ethel McLane, Greg Miller,

H = high count

L = low count

* = record high total for the 43 years of this count

Weldon Morash, Ruth Myers, John & Susan Paull, Gerry & Lillian Pellerin, Debbie Proctor-Scoville, Noreen Reagh, Wendy Rodda, Ron Rogerson, Shirley & Kay Sanford, Tony Scoville, Howard Selig, Helen Sharp, Herb & Judy Snell, Carman & Carolyn Townsend, Charles & Doris Tye, Judy & Malcolm Uhlman, Margot Walker, Mary Lou Ward, Audrey Wellwood, Jane White, Beverly & Robert Wolfe, Noel Woolgar, Ann Young [feeder observer co-ordinators in italic].

HABITAT ANALYSIS (as given in 1971): Acadian forest 43%, cleared land, orchards, etc. 35%, villages and roads 10%, bogs and sand barrens 5%, salt water 5%, fresh water 2%. It has not been re-analyzed in recent years.

PARKS

Why We Need Parks (and Why We Love Them)

by Laura Thompson & Derek Allerton

IN 2010, Parks Canada celebrated the 125th anniversary of Banff National Park, the first national park in Canada. Today, 42 national parks across Canada protect and preserve a wide variety of geographical areas and wildlife habitats. While important, these are not the only protected spaces in Canada. Provincial parks, conservation areas, and various municipal green spaces in every province protect special places to sustain wildlife and for people to enjoy.

We both grew up camping in various Ontario provincial parks and since an early age have visited provincial and national parks across the country with our families. Since moving to Nova Scotia in 2008, we have enjoyed provincial and national parks here. Our most mem-

orable camping trip was at Blomidon Provincial Park upon our arrival. We tented for two weeks with our three-month-old baby and our two Basset Hounds during a very wet August. We had to laugh when a second thunderstorm came along and washed our campfire into the forest! Now, when walking down Main Street in Wolfville and looking out toward Cape Blomidon, we fondly recall our first Nova Scotia camping adventure.

We have visited Kejimikujik National Park several times, picnicking by the lake and hiking by the river with our growing son. The Keji Seaside Adjunct was a highlight of our South Shore vacation last year. Turquoise waters, white sand beaches, and seals met us after hiking almost an hour through the fog. This past summer we spent a solid week experiencing the world-famous Cabot Trail and the magnificent Cape Breton Highlands National Park. Our photographs tell nature stories of swimming and hiking with our son and teaching him to skip rocks on the water.

All of our memories are thanks to society's protecting these places and setting them aside for wildlife and people. Recently, there has been talk of what parks should be for. Are they just to protect habitat and wildlife to the exclusion of people? Or are parks to protect these spaces for people to enjoy in a wide variety of both new and traditional activities? Ultimately, parks are protected as much for people's enjoyment as hopefully against harmful development. It is always a fine balance between sharing these special places and protecting them, and there will always be a debate as to what activities are appropriate within their boundaries, as each park is unique. Given our many positive experiences with parks across the country, we believe there should be more parks and that every new park – whether national, provincial, or municipal – will become another window through which people can catch a glimpse of the many natural wonders of our environment.

Biomass Facts:

by Jamie Simpson,
Ecology Action Centre, March 2011

NEWS ITEM: HALIFAX, NS, NOV. 1, 2010 (PRNEWswire) – *Nova Scotia Power and NewPage Port Hawkesbury are proceeding with the 60-megawatt biomass co-generation facility recently approved by the Nova Scotia Utility & Review Board.*

MEDIA RELEASE: NEW GLASGOW, NS, JAN. 20, 2011 (MARKETWIRE) – *The Honourable Peter MacKay, Minister of National Defence and Member of Parliament for Central Nova, today announced three new investments worth \$43 million that support renewable and clean energy projects across Nova Scotia.... As part of the Clean Energy Fund, Nova Scotia Power will receive \$8.2 million to support the development of a biomass co-firing project. This project consists of generating clean, renewable electricity from waste wood to displace 10 percent of the coal currently used in the Nova Scotia power plant in Trenton.*

1. Biomass electricity is wasteful compared to biomass heating.

The Nova Scotia Power / NewPage Corp. biomass plant in Port Hawkesbury will waste 64 trees “up the chimney” for every 100 trees they burn (best case scenario).

Nova Scotia Power will waste the energy of 70 trees for every 100 trees they burn in their proposed biomass project at Trenton (30% efficient).

The Nova Scotia government has repeatedly refused to require minimum efficiency standards for biomass energy. Without a minimum efficiency requirement, the term “combined heat and power” is meaningless.

2. Biomass electricity will rely on new forest harvesting, not on “waste” wood. While the media often report that biomass energy will be generated from “waste” wood, the fact is, all scraps from sawmills are already fully utilized. Nova Scotia government is allowing 1 million tonnes of new forest harvesting for biomass energy (source: NS Renewable Energy Plan: April, 2010). This is a roughly 20% increase in provincial forest cutting levels.

3. Biomass electricity is not cheaper than wind energy. Biomass electricity is more expensive than medium and large-scale wind energy. Nova Scotians are being forced to pay higher electricity bills to subsidize burning trees for electricity. NSPI is spending \$208 million on the NewPage biomass project, the cost of which will be passed on to Nova Scotians through their electricity bills. And the proposed rate to be paid for biomass electricity under the “feed-in tariff” program is 12% higher than for medium-scale wind projects.

4. Biomass harvesting will provide little benefit to woodlot owners. The prices offered for biomass wood are low – once trucking and



Whole-tree harvesting operation by Northern Pulp Corp., Caribou Mines, NS, Nov.

2009

harvesting costs are removed, there is little if anything left over for the landowner except a potentially degraded woodlot.

5. Biomass energy will increase clearcutting in Nova Scotia.

Because biomass is such a low-value product, clearcutting is the only cost-effective cutting method for biomass.

6. Biomass electricity, as being developed in Nova Scotia, will increase our net carbon emissions for the foreseeable future.

7. Government is allowing biomass development to go ahead in absence of any province-wide regulations on cutting forests for biomass.

8. Public (Crown) land is being used for low-efficiency biomass energy production.

9. The government has repeatedly promised to end whole-tree harvesting for over a year, yet whole-tree harvesting continues unabated.

10. Almost all of the allowable biomass harvest will be taken up by large corporations. Ohio-based NewPage Corp. will use some 385,000 tonnes per year in their Port Hawkesbury biomass project. Nova Scotia Power Inc. will use an estimated 300,000 tonnes of forest in their proposed Trenton biomass project. Wall Street-based Northern Pulp will use a yet-to-be-known amount in their Pictou mill, and the Maryland-based Lockheed Martin will also use a yet-to-be-known amount in their proposed Sydney (Cape Breton) biomass project.

For details of, and sources for, the points above, see the full text: www.friends-of-nature.ca/include/docs/biomass_electricity.pdf

An open letter to the public of NS about the biomass situation by Raymond Plourde (Wilderness Coordinator) and Jamie Simpson (Forest-

ry Program Coordinator) at Ecology Action Centre can be found here: www.ecologyaction.ca/content/biomass---no-such-thing-“waste-wood”-op-ed

WEATHER

Fall 2010 – Eastern Annapolis Valley

by Larry Bogan

SOME snow is still on the ground in mid-March as I write this, and the spring equinox is less than a week away. It sounds strange, but we have had a warmer than usual winter with more than average snow on the ground.

	Temperature			Total Precipitation (mm)	Snow on ground Mean (cm)
	Max (°C)	Min (°C)	Mean (°C)		
December	4.1	-2.0	1.1	151	3
(30 yr. average)	(1.6)	(-6.5)	(-2.5)	(130)	(8)
January	-0.9	-8.6	-4.8	86	26
(30 yr. average)	(-1.2)	(-9.8)	(-5.5)	(126)	(21)
February	0.0	-9.9	-5.0	117	55
(30 yr. average)	(-0.9)	(-9.5)	(-5.2)	(102)	(25)
Season	1.1	-6.7	-2.8	354	—
(30 yr. average)	(-0.1)	(-8.6)	(-4.4)	(358)	(—)

Source: Environment Canada. Thirty year averages apply to years 1971–2000

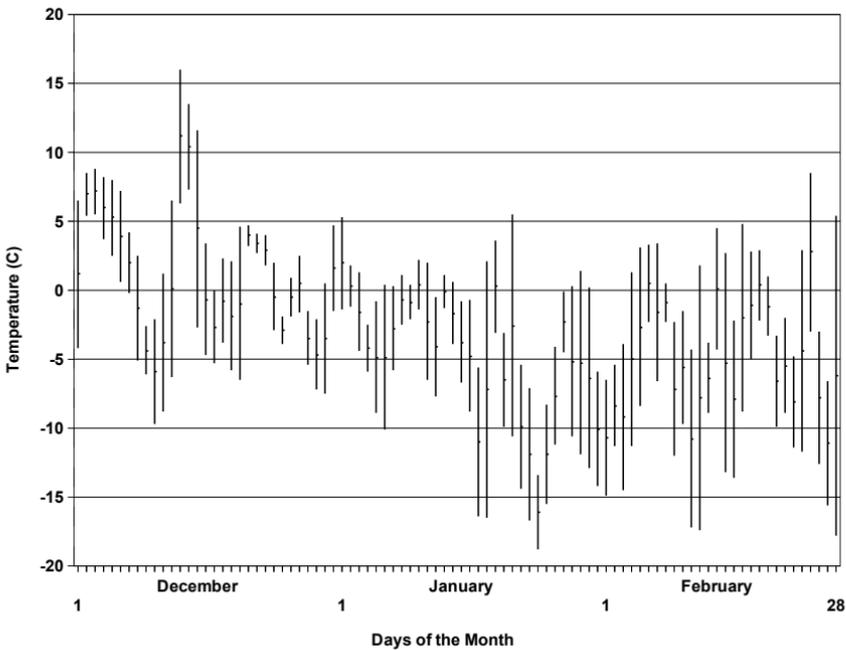
TEMPERATURES

Both December and January this winter had above-normal temperatures, but December was dramatically warmer with a mean temperature 3.6 °C above average. In contrast January was only 0.7 °C above average. February was an average month for temperature. The result is that the season was a relatively warm one.

PRECIPITATION

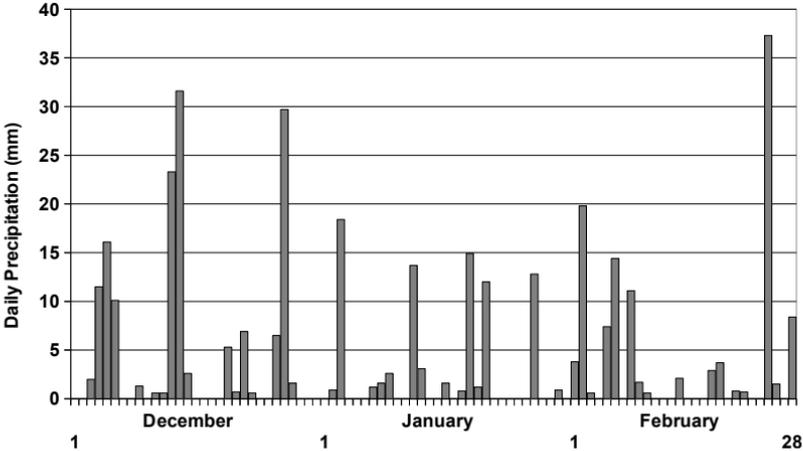
Precipitation for the whole season was pretty well average but unevenly distributed. December was wet, with 20 mm more precipitation than average, while January was below average by 40 mm.

Max, Min, Mean Daily Temperature
Kentville, N.S. Dec-Feb 2010-2011

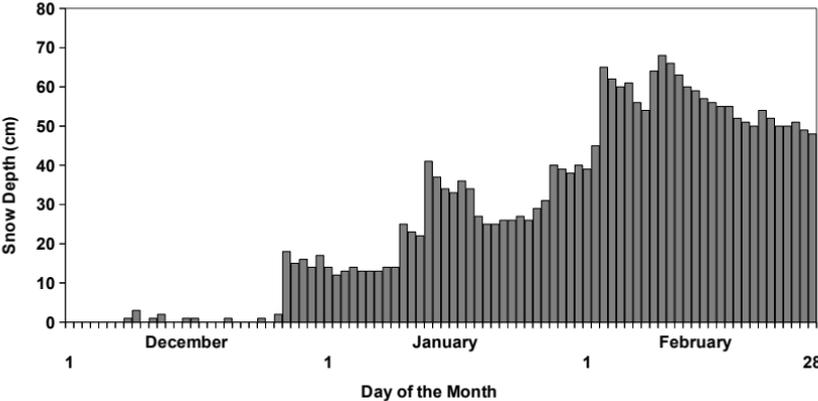


February had an “extra” 15 mm of precipitation. It would be nice to compare the relative rain- and snowfall, but the Kentville weather station did not records the separate types. Precipitation is normally about equally distributed between rain and snow during the winter. This year, however, most of the precipitation was rain in December and snow in February. Snow depth on the ground is recorded, and

Total Daily Precipitation
Kentville, N.S. Dec-Feb 2010-2011



Depth of Snow on the Ground
Kentville, N.S. Dec-Feb 2010-2011



as you can see, we had more than the normal amount of snow. January had only a little more, but during February the snow piled up to more than double the expected depth.

There was some precipitation during the day for more than half the days of the winter, resulting in a rather cloudy winter with few extensive sunny periods. The longest period with no precipitation was only one five-day period (in January). I have included charts of the daily temperature and snow-on-the-ground for the winter.

NOTE: Data from Environment Canada, Kentville CDA is available at: www.climate.weatheroffice.gc.ca/climateData/canada_e.html

ASTRONOMY

What's in the Sky?

by Roy Bishop

SPECIAL EVENTS IN SEQUENCE

April 3: Saturn at opposition*

April 17: Full Moon

May 1: Planets in the dawn*

May 17: Full Moon

June 1: Partial solar eclipse*

June 15: Full Moon

June 21: 2:16 p.m. Solstice, summer begins

July 4: Earth at aphelion (furthest from Sun)

July 12: Neptune's birthday*

* See the astronomy note in your BNS Natural History Calendar for that month.

Anyone who has studied trigonometry is familiar with the sine function. A sine curve is the smoothest, simplest, wave-like curve imaginable. Wiggle a pen smoothly back and forth as you drag it across a sheet of paper and you will have a good graphical representation of the mathematician's sine function. Google "sine curve" and you will see many versions of that famous curve. But what has a sine curve to do with the seasons?

If you could watch a time-lapse video of the noontime Sun in the sky, during the course of a year it would oscillate up and down just like your pen did before you began dragging it across the paper. The Sun would slow to a stop at its high point in June, and again slow to a stop at its low point in the sky in December. At the mid-way point it would be moving most rapidly day-by-day, moving quickly lower in the sky in September, quickly higher in the sky in March. Plot that motion on a graph with time-of-year along the horizontal axis and you would have an almost perfect sine curve.

During January and early February, the noontime Sun does not rise much higher in the sky from its December low point, which is why winter hangs on, week after week. During March however, the days are obviously lengthening, the snow disappears, and song sparrows begin to serenade the dawn. The Sun makes its largest daily step higher into the sky on the spring equinox, March 20. However, by May the Sun's noontime vault higher into the sky above Nova Scotia has obviously slowed. It reaches the top of that imaginary sine curve on June 21, the summer solstice. The very word "solstice" means, in Latin, the Sun (*sol*) is standing still (*sistere*), at the zero-slope top of the sine curve.

For another month or two the Sun lingers not far from that peak, but by September it is plunging southward, appreciably lower in the sky with each passing day, causing increasingly longer nights and shorter, cooler days. The Sun makes its largest daily step lower in the sky on the autumn equinox, September 23. Three months later, on the winter solstice, it reaches the bottom of the sine curve, linger-

ing near there because of the shallow slope of that part of the curve, while the land freezes and snow returns.

THE ANALEMMA

During the year the position of the noontime Sun in our sky goes through a north-south oscillation, as described above. If you were to take a photo of the Sun at the exact same time every day (for example, at 12:17 p.m. Atlantic Standard Time, from Wolfville), during the year the Sun would go through a complete oscillation as described in the above paragraphs. However, those multiple images of the Sun would not lie exactly on a straight, vertical line in the sky. Two aspects of Earth's motion around the Sun cause an east-west annual wandering of the noontime Sun in the sky:

- 1) Earth's orbit is not circular. It is an ellipse, and, as Johannes Kepler discovered 400 years ago, the Earth-Sun line sweeps out equal areas in equal times. Thus Earth moves faster when nearer the Sun, and slower when it is further away, precisely in the manner that Kepler described. That makes the east-west location of the noontime Sun in the sky vary appreciably during the year.
- 2) Earth's equator is inclined 23 degrees to the plane of its orbit, which, of course, is why the Sun oscillates north-south during the year, causing the seasons. The projection of that tilt also contributes an east-west wandering of the noontime Sun as the weeks go by.

The two east-west drifts combine to spread what would otherwise be a simple north-south oscillation into a skinny figure "8," known as the *analemma*. With planning and dedication, a few people have managed, over an entire year, to photograph that mystical pattern in the sky. Google "analemma" to find such photos. Those remarkable images make the abstract analemma real.

World globe maps of a century ago often had an analemma printed on them, usually placed in the Pacific Ocean near Easter Island,

where it would not obscure any land areas. By its east-west extension, such an analemma gives the correction needed to adjust the reading of a simple sundial to determine local mean solar time. By its north-south extension, a globe-based analemma enables the user to locate the latitude where the Sun is in the zenith (exactly overhead) at solar noon on any day of the year. The difference between that latitude and the globe-user's latitude gives the angular distance of the Sun from the zenith at solar noon on that day. The northern limit of the analemma locates the Tropic of Cancer, its southern limit the Tropic of Capricorn, the two latitudes where the noontime Sun passes through the zenith on the solstices (see the photo of Larry Bogan below, and note his shadow).

Unfortunately, in recent years astronomy has been dumbed-down for the public, and analemmas have quietly been dropped from world globes. Kepler would not be pleased.



ROY BISHOP

Larry Bogan at solar noon near the Tropic of Capricorn near the time of Canada's winter solstice (Humahuaca, Argentina, 2005)

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

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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	\$20.00	\$ _____
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	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.





Writing at a fifth floor window of Acadia University library, I am entranced by the snowy landscaped aglow with the last gleam of the setting sun. Far out across the marshes & the tidal flats of the Bay of Fundy, the lava ridge of North Mountain terminates in the precipitous Cape Blomidon, behind which extends eastward a more distant ridge, the Cobequid Hills. The forested hills; the farmlands; the tidal zone, ... These are outstanding habitats for wildlife. Bald eagles come here in the spring, & observers count, at times, one or two hundred on a week-end. Later, the shorebirds (sandpipers & plovers) come north en route to their breeding grounds in the north, having ^{avoided} ~~wintered~~ ^{over} many of them, in Guyana & probably, much further south. Most of them left us in September & October, though I saw a laggard little flock of ^{about} 20 sandpipers just one week ago. ~ I have a nearly-daily ritual walk or bike-ride out along the dike to where one can see, at this season, a few hundred ducks, several thousand gulls, & often fifty or more geese, & perhaps an eagle or two. More rarely there may be a small whale or porpoise or two, or three, ~~or~~ ^{or} four, - & in the fields & ditches, a mink, a fox, a skunk, & even a couple of deer.