

**Blomidon Naturalists Society**

Spring 1998 - Volume 25 Number 1

## 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 127  
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## BNS SPRING PROGRAMME, 1998

### MONDAY EVENING MEETINGS

Unless otherwise noted, meetings are held on the third Monday of the month and start at 7:30 p.m. at Acadia University in Room 244 of the Beveridge Arts Centre. All meetings are open to the public and BNS members are encouraged to bring friends and neighbours.

**April 20 MARTY LEONARD. Parent-offspring Interactions of Tree Swallows.** Marty is a professor of biology at Dalhousie University. Much of her work with tree swallows has been conducted in the Annapolis Valley.

**May 18 CHRIS HARVEY-CLARK. Underwater Natural History of the North Atlantic.** Chris is a veterinarian with the Biology Dept. at Dalhousie University. His special interests are diving and underwater photography. Chris has recently published a book entitled *EASTERN TIDEPOOL & REEF: North-Central Atlantic Marinelif e Guide*. Come hear about his underwater adventures, outstanding photographs!

**June 15 STEVE JAVOREK. Bees and Blueberries.** Steve has studied pollination in low-bush blueberries for the past seven years. The use of native and managed bees is one area of his special interests, together with questions on how the immediate environment influences the activities of these bees. Steve is with the Agricultural Centre in Kentville.

## FIELD TRIPS

Note: **RTNC** is the Robie Tufts Nature Centre on Front Street in Wolfville.

**April 26 A Birders Pond Hop.** A joint trip with the Nova Scotia Bird Society to look for birds about local ponds. Meet at RTNC at 10 a.m., bring a lunch. Leader: Jim Wolford.

**May 16 Early Morning Spring Bird Trip.** Explore the Gaspereau Mountain and old Reservoir for spring birds. Many species will be in full song. Trip will finish before noon. Meet at RTNC at 7:30 a.m. Leader: Angus MacLean.

**May 31 Nature Walk in Blomidon Provincial Park.** Look for spring birds, flowers, and new growth. Explore the pond to find the very rare, but gorgeous, fairy shrimp (full size and in egg-bearing mode), as well as caddisflies, damselflies, dragonflies, phantom midges, etc. This walk is a "Parks are for People" event. Meet at RTNC at 9:15 a.m. or at the lower gate to the Park at 10 a.m. The walk will finish by noon. Leader: Jim Wolford.

**July 11 Gaspereau River Flower Walk.** Search for the large variety of wild flowers that grow along the upper Gaspereau River. Meet at the RTNC at 9 a.m. or at the White Rock bridge at 9:30. The walk will continue into the afternoon, bring a lunch. Leader: Ruth Newell.

**July 25 Shorebirds of the Minas Basin.** An afternoon of watching shorebirds - one of the highlights of our birding year! Flocks numbering well into the thousands of birds and up to 20 species! Meet at the RTNC at 12:30 p.m.. Wear clothing suitable for a muddy beach. Leader: Judy Tufts.

**Note:** Watch for this summer's "Parks are for People" program soon to be announced by the Dept. of Natural Resources. Several of the walks are local and guided by BNS members.

### Notes from the Editor

As I write this, the sun is shining, the snow has melted and the Fox Sparrows have returned. Welcome to Spring!

This issue of the newsletter is the first of two special issues

focussed on the Fundy Shore. I would like to thank the authors of the special issue articles - Carolyn Bird, Angus MacLean, and Sherman Bleakney - and the regular contributors, Lorna Hart for advertising, and Phil Taylor for production.

Susan Montonen, 542-0437  
Susan.Montonen@acadiu.ca

## ANNOUNCEMENTS

### **Federation of Nova Scotia Naturalists 1998 Annual Conference**

Dates: June 5, 6, 7

Host: Eastern Mainland Field Naturalists

Location: Antigonish

Theme: "Shorelines - Life on the Edge"

All BNS members are invited to Antigonish on the first weekend of June to meet with other naturalists from across Nova Scotia and to share a weekend of talks, field trips and socializing. The theme this year is "Shorelines - life on the edge". Organisms of all descriptions make their living on the edge of many habitats, the most prominent one in Nova Scotia being the shoreline. Many field trips will be centered on the shorelines of the Antigonish area and will attempt to interpret some of the fascination that dwells there.

Morning walks will take place both Saturday and Sunday and will go to nearby areas of natural history interest. On Saturday afternoon, you will be provided with a choice of seven extended field trips. A new hiking area, the Fairmont Ridge Trail (of which the host club is very proud) will be used for both afternoon and morning trips. The FNSN will be launching a project of province-wide scope: the Nova Scotia Herpetology Atlas. We will run the inaugural field trip for collecting data for this project. Other walks will focus on plants, birds, insects and nightlife.

Enclosed with this Newsletter are a program and a registration form. You are encouraged to register early to ensure your participation in those events that are of most interest to you. Hope to see you in Antigonish!

## NORTH AMERICAN MIGRATION COUNT (NAMC) - MAY 9, 1998

Now is the time to be thinking about Spring and the North American Migration Count (NAMC) taking place in the province on Saturday May 9th. Many of our northward-migrating neo-tropical bird species will be back, visible once again in the midst of pairing off or looking for suitable habitats to raise new families. We need to be out in field, woods and mountain, along river, pond and ocean, searching for those species, counting the birds to see what effect migration has had upon their numbers and their distribution. This should be of great concern for all of us. Please take time to consider participating in this very worthwhile project. There is NO FEE.

It is important that all those wishing to participate contact local coordinators or area reps. in their counties, to prevent overlaps of areas being surveyed, and to help the coverage to be as widespread and thor-

ough as possible. If you are interested in counting locally in the Hants/Kings/Annapolis counties, please contact one of the following in the appropriate county.

**Annapolis:** Rebecca Ellis (*Bear River*) Tel: 1-902-467-3470  
Gini Proulx (*Clementsvale*) Tel: 1-902-467-3235; **Hants-east**  
Rosalyn McPhee (*Shubenacadie*, coordinator) Tel: 1-902-758-2617;  
**Hants-west:** Jane McConnell (*Falmouth*, joint coordinator) Tel: 1-902-798-3267; Bev Shanks (*Ellershouse*, joint coordinator) Tel: 1-902-798-2617; **Kings:** Sheila L. Hulford (*Kingston*) Tel: 1-902-765-4023; Judy Tufts (*Wolfville*, county coordinator) Tel: 1-902-542-7800; or should you wish to 'count' in other counties than the one in which you live, please contact me. I will be happy to help with any queries.

Judy Tufts (NAMC Prov. Coordinator) Tel: 1-902-542-7800. P.O. Box 1313 Wolfville, NS B0P 1X0.

## WHAT TO DO WITH INJURED AND ORPHANED BIRDS by Dr. Annie Ferraro

With the return of spring to the region, we will find injured and orphaned birds. These birds may or may not need our help. How can we tell when it is time for us to pick up a bird that can't seem to fly? And

what do we do? If the bird has been struck by a car, there is no doubt that the bird will be hurt or killed. If the bird is alive, and if you can, immediately wrap the bird in a towel or any available cloth that will allow

you to completely cover the bird lightly and firmly. Spread the cloth over the bird, then slide your hands along the wings and under the belly. A small song bird can gently be scooped up after being covered. If it is a bird with talons such as a hawk or owl, use leather gloves if possible and firmly hold the legs away from you while picking up the covered bird. If it is a bird with a long pointed beak, such as a loon or heron, again, use gloves and gently grasp the head from behind while picking it up. Be careful not to place your fingers over the eyes or nostrils on the beak. Place the bird in a cardboard box that is only slightly larger than itself. If you do not have a box and must handle the bird, hold the wings gently but firmly close to the body. Never hold a bird tightly or press on the chest. Birds must be able to expand their rib cages in order to breathe. If the bird can fly somewhat and it is difficult to catch, use a larger cloth such as a sheet. Get some help to spread it over the bird before gently gathering the edges. Take the bird immediately to a veterinarian or established rehabilitator.

If a bird flies into your window or is blown against a building, cover the bird, pick it up and look it over carefully. If it has a broken wing, leg or is obvi-

ously injured, call a veterinarian. If it appears stunned or unconscious, place it in a ventilated box which can be closed. Put it in a quiet, safe and moderately warm location. Check it in 15 minutes. Some stunned birds simply require a few moments to regain their normal mentation. If it appears bright and alert, release the bird. It may fly away perfectly well. If it still appears stunned in 15 minutes, check it again in another 15 minutes. Follow the same procedure. If the bird continues to appear dazed or unconscious after 30 minutes, call a veterinarian for further instructions or treatment. The bird may have suffered a concussion and this requires medical treatment.

A very frequent situation occurs when birds are fledging or learning to fly. These birds are often found on the ground unable to fly and are mistaken for injured. These fledglings are not usually hurt. They have recently left the nest and are learning to forage. The parents are nearby and will come to feed them. They will follow the parents and attempt to fly after them. These birds may remain on the ground for several days before returning to tree or shrub limbs. Their speckled feathers, short tails and wispy down are easy clues to their identification.

Do not pick these birds up immediately. Removing them separates them from their parents. The parents will look for them for a limited amount of time and then leave. Note where these birds are. Look at the bird to see if it appears bright with eyes open and fast head movements. Listen for agitated bird calls. You can frequently see or hear the parents nearby in trees or shrubs. If the fledgling is bright and alert, check the site hourly from a distance. A fledgling unfortunately is certainly prey for local cats. But parents are skilled at driving cats away by diving at them. Be very sure that this bird is orphaned before removing it. Once it is removed, it is guaranteed to be orphaned and will require care. If the bird appears to be moving and relatively quiet, then it is being cared for by the parents. If the fledgling sits with eyes closed or is found crouched in the same location after 4 hours calling constantly, the bird may be ill or orphaned. Again try to listen for the parents. Approach the fledgling and gently pick it up, covering it as described above. Uncover

the head. It may be very weak or open its mouth wide in anticipation of food. In either case, put it in a small ventilated box that is lined with grass, straw, hay or a cloth and contains a cloth covered plastic bottle with warm water. A small pop bottle works very well. Cover the box and place it in a safe and quiet spot. Take the bird to a veterinarian to assess its health. Raising an orphaned bird can be fun and a wonderful learning experience for the entire family. But it does require a great deal of special care, diet and a safe environment. If you wish to try, discuss the care thoroughly with the veterinarian. If you are unable to or simply feel it is a bigger task than you can or want to assume, take the bird to a veterinarian or clinic that will find a rehabilitator.

In our region, Valley Veterinarians located in the Greenwood Mall will provide assistance or treatment to any injured bird that is brought to the clinic. Since it is offered as a community service, the clinic assumes the cost of this treatment.

## **SYSTEMS PLAN --JIM CAMPBELL'S BARREN UPDATE** by George Alliston (conservation committee)

On October 29, 1997, the Government of Nova Scotia announced the reinstatement of Jim Campbell's Barren as a

candidate protected site under the Systems Plan for Parks and Protected Areas. On December 9, 1997, the Government



introduced legislation to have all 31 candidate sites permanently protected; however, this legislation was not passed during the brief sittings of the Legislature. With the recent election, we have a new Government and, possibly, a new party in power. Since the candidate sites are not fully protected until the appropriate legislation is passed, the new Government must be encouraged to enact this legislation.

While enacting protective legislation is the last major hurdle in the process, even when this is done, we cannot be entirely complacent. In 1995, when Government announced its acceptance of the Systems Plan, it allowed that "existing mineral rights should be recognized while they are maintained in good standing". Parts of several of the candidate protected sites, including Jim Campbell's Barren, had such claims and it appears that some members of the mineral industry are intent upon maintaining these claims in good standing. However, such claims cover less than 1000 ha of the 291,000 ha protected under the Systems Plan and, while they could present some

difficulties in individual protected sites, they do not threaten the integrity of the Systems Plan.

In recent weeks, Jim Campbell's Barren has been the focus of further publicity when Regal Goldfields, the company that staked the Barren after having it removed from protection in 1996, sued the Government of Nova Scotia for compensation. On March 11, the court found that the Government acted within its rights and was not liable to pay compensation.

The BNS Conservation Committee, the Federation of Nova Scotia Naturalists (FNSN) and the Coalition of Concerned Groups wish to thank those BNS members who signed the petition and, particularly, those who took the time to write letters protesting the delisting of the Barren. Your expressions of concern, heard in concert with other members of the FNSN and the 51 other groups that formed the Coalition, have been largely responsible for the Government's reevaluation of its position.

## **THE EASTERN HABITAT JOINT VENTURE RIPARIAN MANAGEMENT PROJECT**

**by Larry Bogan, Chair, Conservation Committee**

Someday, when you are driving along Rt 221 through

Melvorn Square, just north of Wilmot, look for a sign in a

pasture on the south side of the road opposite a series of radio towers. This sign was placed there on October 23 of this year, and unveiled by the Honourable Kenny McCaskill, Minister of Natural Resources. It announces the location of the first riparian management pilot project in Nova Scotia.

The farm on which the project is taking place is named Melvern Simmentals, from the Simmental pure breed cattle raised there. One of the larger pastures on the farm lies just below the North Mountain, and through it runs a small picturesque stream with one side bordered by a steep, treed bank. That stream was the source of water for about 100 cattle, and they continued to trample the banks and muddy the water they had to drink. In the summer the stream flow would slow to a trickle.

Bill Armstrong, owner of Melvern Simmentals, knew there was a persistent wet area in the pasture near the stream that must be fed by a spring. Last fall, with the help of the

Department of Natural Resources, Eastern Habitat Joint Venture, and the NS Department of Agriculture, he built a small pond to trap the water from the spring, and fenced off the stream banks from the pasture. The pond remains full the year around and feeds a watering trough accessible to the cattle, away from the stream. The nearly 1 km of fencing, has transformed a muddy stream with eroded banks into a clear free-flowing healthy stream. Now there is a good reliable source of clean water for fish, an undisturbed stream side that can provide a habitat for native plants, and a corridor for wild animals.

Terry Power, program manager for the Eastern Habitat Joint Venture, says that there are many more farms interested in similar projects and more are signing on. This is an excellent example of cooperation between various parties that provides conservation of natural resources as well as improved water quality.

## INTEGRATED RESOURCE MANAGEMENT PUBLIC MEETINGS

During the summer of 1998, the Nova Scotia Department of Natural Resources (DNR) will conduct the public consultation phase for the Crown Lands

Integrated Resource Management (IRM) plan for Western Nova Scotia (defined as all counties west of Hants/Halifax Counties). This process has

been completed for Cumberland and Colchester Counties and is currently under way in Hants and Halifax Counties.

In the first round of public hearings, DNR will be gathering information regarding current usage and concerns of all individuals, groups and businesses with interests in these Crown lands. If you have information on usage, or concerns that you think might be shared by other naturalists, it would be helpful if you made them known to the BNS Conservation Committee. The Committee will compile and present this information to the IRM committee. It is important

that, if there are issues that concern you, the issues should be voiced. You can be sure that other users and potential users of Crown lands will be well represented at these meetings!

The scheduling of these meetings has not yet been set; however, the Conservation Committee will keep abreast of these developments. If you wish to provide or obtain information, contact any member of the Committee:

George Alliston 542-3651  
Peter Austin-Smith 542-2109  
Lorna Hart 542-4470  
Tom Herman 678-0383  
Jim Wolford 542-7650

## **ABANDONED CEMETERIES IN NS: RESTING PEACEFULLY BUT FORGOTTEN**

*The following is a request from the NS Museum. Since BNS members hike around everywhere, we thought it would be another thing you could keep your eyes open for.*

For heritage-minded people, abandoned and forgotten Nova Scotian grave sites and cemeteries mean important information has been lost forever. Overgrown, sometimes with gravestones crumbling, these sites are often the target of vandals. There are even cases of abandoned grave sites being ploughed under during redevelopment by unsuspecting

or unscrupulous landowners.

Deborah Trask, Nova Scotia Museum, has been studying Nova Scotia's gravestones for more than two decades. A recent study identified nearly 1000 burial sites in Cumberland County alone, many of them unrecorded, on private property or abandoned. With a possible 20,000 burial sites across the province, the question of protecting these sites could be important to our province's heritage.

"In addition to the historical information cemeteries can

provide, graveyards are traditionally sacred places," says Trask. "People want abandoned and neglected grave sites protected somehow for posterity."

The Nova Scotia Museum would like to find out more about Nova Scotians' interest in the identification and protection of abandoned

cemeteries in the province. Do you know of abandoned cemeteries in your community? If you have concerns about old graveyards in your area, please let us know. Write to: Deborah Trask, Museum Services, Nova Scotia Museum, 1747 Summer Street, Halifax, N.S., B3H 3A6, FAX information to 902-424-0560 or e-mail [educnsm.traskde@gov.ns.ca](mailto:educnsm.traskde@gov.ns.ca).

## OTHER EVENTS

**20 March-3 May**

**Rose Adams, FUNDY SUITE, Acadia University Art Gallery**

Rose Adams' Fundy Suite Looks at our relationship to the natural world, specifically the sea. The Acadia installation is made up of two rooms, the Weir Room and the Domesticated Room, each presenting a different view of our relation to the sea. The Weir Room, dominated by a weir-like structure reminiscent of the herring fishing weirs once

common to the Bay of Fundy, reminds us of our historical dependence on fishing. In the Domesticated Room, Adams has transferred nature indoors so that aspects of the sea become decorative motifs for her carpet-like paintings enclosing the room. Rose Adams currently teaches in Acadia's Department of Art.

**April 22 to June 21 SACRED WORTH: Protecting Nova Scotia's Natural Areas.**

Paintings by Alice Reed. At Nova Scotia Museum of Natural History, Summer St., Halifax. Alice spent two years studying and recording these spectacular landscapes from the 31 wilderness areas (formerly candidate areas) to be eventually added to our net-

work of protected areas in N.S. Her work has been supported by the NS DRN, and the sale of the exhibit catalogue, available from the Museum Shop, will support the work of the Nova Scotia Nature Trust. Gallery Tour led by Alice, Sunday May 3 at 2 p.m.

August 6 - 9 **Canadian Nature Federation A.G.M. & Conference**, held in conjunction with the **New Brunswick Federation of Naturalists**, in Sackville, N.B., hosted by the Chignecto Naturalists' Club, c/o Can. Wildlife Service, Box

6227, Sackville, N.B. E4L 1G6. Watch for details in the Spring issue of **Nature Canada** magazine, or keep an eye on the CNF web-page for more news can be found at: <http://www.magma.ca/~cnfgen/>

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# NATURAL HISTORY NEWS

## Special Issue: FUNDY SHORE

### BENTHIC ALGAE OF THE UPPER BAY OF FUNDY—MORE THAN MEETS THE EYE

by Carolyn J. Bird  
Senior Research Officer  
Institute for Marine Biosciences  
National Research Council of Canada

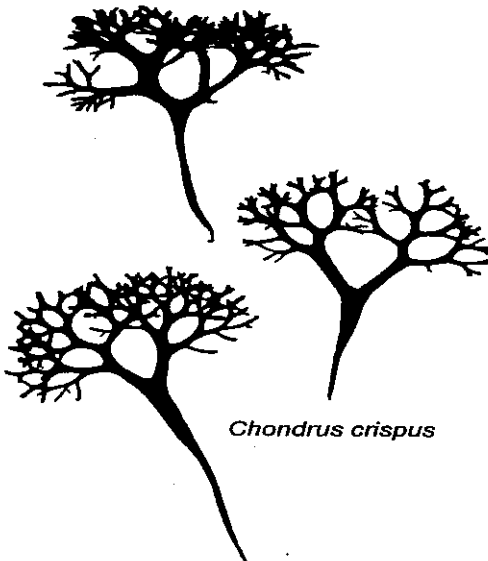
For the specialist in algae, the upper Bay of Fundy has traditionally been eclipsed by the splendid luxuriance of the seaweed flora of the lower bay. By comparison, the upper basins were thought to be extremely uninteresting. Their shores were mainly vast mudflats eroded from the fringing soft Triassic sandstones, the waters above them turbid to the point of opacity and apt to deposit silt to smother whatever might settle there. The seaweed flora was usually paltry and stunted. In fact, until fairly recently, the upper Bay of Fundy was widely perceived as a mud-hole, relatively devoid of marine life. But just as we now know that the upper basins of Fundy are in fact rich nurseries and dwelling places for myriad organisms, so we can also recognize unique adaptive features to the algae that inhabit these shores. As with most biota of the Fundy shores, the main factor in the life of algae on these coasts is the large tidal amplitude, which determines not only where the shore-dwelling species will grow but also which of them will grow there.

Suppose we start with the most obvious of the algae, the seaweeds. Lush development of seaweeds ordinarily requires stable rocky substratum and relatively clear seawater; in the upper basins of Fundy, both requirements are fairly scarce. Stable substratum is of paramount importance for most large algae, as waves would otherwise cast them ashore or disturb the bottom enough to damage them by erosion. However, much of the bedrock around the upper basins is too soft and friable to harbor large perennials. Outside the basins, the hard basalt dyke of the North Mountain and accessory outcrops on the opposite Parrsboro shore support a fairly rich flora, although it too is often limited in the subtidal region by abrupt transition from rock to loose stones or sediment. The second requirement, clear water, is necessary for sufficient light for photosynthesis to reach the bottom-dwelling algae; excessive turbidity not only impairs light

transmission but also is apt to result in direct deposition of opaque sediments on the algae. With the huge amplitudes of the Fundy tides, coupled with sediment load, bottom-dwelling algae can be in comparative darkness at mid-day, covered by 12 m or more of murky water. On the face of it, many seaweeds would find the upper Fundy inhospitable.

But these are adaptable organisms, and there are hardy survivors among them. The occurrence of deep-water light conditions at a level on the shore that can be exposed by low spring tides allows beachcombing naturalists to see species that normally would remain hidden in the subtidal zone. In particular, some red algae that normally live at the lower limits of the photic zone are here able to compete successfully at higher levels on the shore. Although they usually are more susceptible than intertidal species to desiccation on exposure to air, a peculiarity of the tidal cycles in the bay affords them some protection from drying: the low spring tides, when the chance of emersion is greatest, always occur in the early morning and evening when temperatures and light levels are below maximum. A light coating of sediment does not seem to bother them either, in fact may confer protection from excessive light during exposure and, in those emersed for longer periods, help conserve moisture at the same time.

A third and very important factor affecting the habitat of upper Fundy seaweeds is ice. Large floes rake the flats, grinding the algae from whatever stony substrate may be available. On the harder basalt outcrops, especially along the Minas Channel with



its strong currents, the seaweed canopy may be scoured almost completely from the rock, leaving only crew-cut survivors in the crevices. However, the currents that propel the ice to such drastic effect also bring a rich nutrient load and promote development of large plants. Irish moss (*Chondrus crispus*), usually less than 12 cm tall, has been observed over 20 cm tall in channels at Cape Split.



*Porphyra miniata*

Here also, on mid-tidal boulders, can be found broad, rubbery thalli of *Porphyra umbilicalis*, much larger than elsewhere in the province. Kelps (*Laminaria* spp.) become large and robust, stretching in the currents and reaching towards the light. The boreal-Arctic *Porphyra amplissima*, although near the southern limit of its distribution, nonetheless attains considerable size in the bay, producing

bright-pink membranous fronds that may reach over a metre in length.

Where there is minimal sedimentation and sufficient shelter from ice, the variety of species increases dramatically. Low pools and channels harbor mixtures of subtidal red algae, occasionally offering an abundance of rare species like *Gloiosiphonia capillaris*. On the Parrsboro shore, low horizontal ledges support unique, almost pure lawns of the forked, wiry red seaweed *Polyides rotundus*. Delicate leafy species like the sea oak, *Phycodrys rubens*, provide attractive splashes of pink among the darker reds of *Chondrus* and *Mastocarpus*. Filiform branched thalli of red *Polysiphonia* and brown *Desmarestia* contrast with the prevalent shrubby and leafy forms. At the lowest tides, the normally deep-water kelp *Agarum*



*Gloiosiphonia capillaris*

*clathratum* (sea colander) may be fully exposed to air. The down side to having this array of algae within view is that the large tidal amplitudes expose great expanses of slippery rockweed, primarily *Ascophyllum nodosum*, that have to be crossed before you can see the low-level species—and have to be crossed again as the tide returns.



*Agarum clathratum*

Although any rocky shore of





*Phyllophora pseudoceranoides*

Fundy is a good place to see seaweeds, particularly towards the outer bay, some of the sandier shores offer a considerable flora too, with easier footing. Lyons Cove, well known to dulse-pickers of the Blomidon area, is one of the very few places in Nova Scotia where you can reliably collect two species of *Phyllophora* by wading. Sizeable kelps are found there as well, along with a variety of other low- and subtidal seaweeds (*Phy-*

*codrys, Polyides*). Even the intertidal zones of these beaches will host seaweeds if stable firm substratum is present, although at the upper levels they are mostly annuals that are less affected by seasonal cycles of ice erosion and changes in beach contours.

In fact, the inability of the substratum to support a perennial flora leaves it open for annual species like *Dumontia contorta* and *Porphyra*, which thrive there in season. In August, for example, intertidal mud flats all around the southern bight of Minas Basin support a profusion of *Porphyra purpurea*, along with bright-green *Enteromorpha*, on small stones and low silt-stone outcrops. The *Porphyra* thalli may attain lengths of 1 m or more, and lie happily for hours on the warm mud at low tide.



*Phycodrys rubens*

Wherever there is water in this system, there will be benthic algae, however inconspicuous, and this is true of the more sheltered environments as well. The creeks of saltmarshes along the upper basins intrigued an earlier observer:

*The tidal rivers, winding in the most sinuous courses through the marshes, at times run full to their bordering dikes, loaded with brownish-red mud; but the fall of the great tides sends their thick currents tumultuously out, to leave but tiny rills between deep gaping gashes of slippery mud gleaming in the sunlight.* (W. F. Ganong, 1903. The vegetation of the Bay of Fundy salt and diked marshes: an ecological study. Botanical Gazette 36: 161-186)



Sc *Scytosiphon lomentaria*

It is a pity that this sort of picturesque speech has fallen out of vogue in scientific writing. The point is that salt marshes and muddy creeks too have their algae, although seeing them may be hazardous if the mud is especially soft and glutinous. Take along a friend or two to pull you out if you get stuck. Summer, when the substrate is relatively stable, is the best time to see marsh algae. They will be mainly microscopic, and the intrinsically larger multicellular types tend to be reduced in size as well. Near the lower limits of the

*Spartina* grass, look for gelatinous dark blue-green spots and small patches on the mud surface, or around the culms of the grass where they emerge from the sediment. These spots are aggregates of the filamentous blue-green algae *Spirulina subsalsa* or *Anabaina torulosa*, an ancient race of organisms more properly classified as cyanobacteria because of their structural simplicity. Occasionally, around small drains from the upper marsh, there may be small pointed tufts of another filamentous cyanobacterium, *Symploca funicularis*. Or, if the mud here and beyond the grass looks golden brown instead of reddish, you are seeing vast numbers of benthic diatoms, unicellular algae that build intricately patterned external shells of silica. The principal species here are the among the giants of the diatom world: *Gyrosigma balticum* (*sensu lato*), nearly half a millimetre long and cigar-shaped, gliding over wet sediments like a miniature ocean liner, and the slightly smaller *Pleurosigma angulatum*, a broad, flat diamond. Fine threads of the filamentous green alga *Rhizoclonium* frequently twist around the culms of the lowest grasses near the sediment surface, but this and other green algae are apt to be larger and more abundant at higher levels in the marsh and particularly in pools. In about the middle of the marsh, you may also find blackish-green felty mats of the xanthophyte green alga, *Vaucheria*, growing on the surface around *Spartina* and *Juncus*. This alga has no internal cross walls in its vegetative filaments, and is a favorite food of certain small sea slugs (e.g. *Elysia*), which can usually be found associated with it. A good hand lens will reveal much of the variety to be found here.

Are any benthic algae unique to the Bay of Fundy? The answer is no, but the composition of the flora and the promi-

nence of particular species are sometimes very different from other coasts of Nova Scotia. For example, on the basalt shores of Kings County, the uppermost reach of salt water frequently is marked not by a blackish stain of cyanobacteria as on other rocky coasts but by meadows of the tiny leafy green alga *Prasiola*. Extensive grazing by periwinkles and sea urchins near the mouth of the bay has left the lower intertidal zone dominated by thick yellowish-pink layers of the crustose coralline *Clathromorphum circumscriptum* instead of fleshy red algae. Other crustose algae that develop extensively in the Bay of Fundy but not on adjacent shores are *Ralfsia fungiformis*, aptly named for its overlapping, concentrically zoned lobes that resemble bracket fungi, and "*Petrocelis*", forming rubbery dark red patches on boulders. The latter is the alternate, diploid phase of *Mastocarpus stellatus*, the haploid phase of which strongly resembles *Chondrus crispus* and, in the Bay of Fundy, often replaces it as the dominant frondose red alga of the low intertidal zone. On the other hand, *Odonthalia dentata*, a common deep-water species of the outer Atlantic coast, is extremely rare in the bay.

In summary, there is indeed more to the algae in the upper Bay of Fundy than a cursory view of the mudflats would suggest. The algae are there, from the finest silts to the hardest bedrock, flourishing under the constraints of the unique tidal environment. On your next visit to the shore, have a look at these vital primary producers and note the variety. It's greater than you think.

#### *Some useful references:*

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## **BAY OF FUNDY SHORES - A CORNUCOPIA OF CREATURES**

**by Sherman Bleakney**

The upper Bay of Fundy, and its Minas Basin adjunct, experience the highest tides in the world, in the order of 50 feet (15 m). Impressed? Well don't be. This simply means that local tidal waters, sometimes creep a few feet higher on dyke walls, the

seaside goldenrod get their feet wet, and a few wharf decks become submerged. So why all the media hype? Are they expecting, breathlessly, some kind of disaster? There rarely is one (1869 was the best tidal media event), so they pack up their cameras and leave before the real excitement takes place - about 6 hours later. Forget about all that highest tides stuff and wake up to the fact that the Bay of Fundy has the lowest tides in the world! And what is so super about that - you ask? It means an opportunity is presented, for just an hour or so, to enter an alien zoological realm, to walk about, to explore, to observe, to contemplate the weird and wonderful world of the low intertidal and upper subtidal zones, that species-rich infralittoral fringe. Fundy extreme tides routinely expose a broad band of huge kelps, a phenomenon that does not happen on the Atlantic coast of Nova Scotia with its mere 5-6 ft (1.8 m) tides. This infralittoral fringe habitat is otherwise accessible only by dredging or scuba diving, but our Fundy currents and turbid waters make both of the latter approaches difficult to execute and limited in their results.

Nothing, absolutely nothing, is comparable to the experience of strolling about on the floor of the ocean witnessing firsthand the intricate patchwork of benthic marine communities spread out in every direction, all the while marvelling that in a mere 6 hours, the moon and sun will conspire to raise the waters where I now stand to a height of 35-45 feet (10.5-13.5 m).

Much of the Fundy shore consists of rock, either surfaces of solid bed rock or loose pieces of same. Because of the local straight-line, storm-exposed, Fundy shoreline, the habitat is one of rock grinding on rock, and consequently the flora and fauna seek shelter in crevices, and between and beneath boulders, and under the cover of sea weeds. Which is where you must search. The most accessible and richest site in Kings County is at Black Rock, a small basaltic inshore island that protects the coast in that area. All about this basalt outcrop, and on it, are rock pools, rock piles, rock faces, rock crevices where live creatures imagined and unimaginable. [If you are ornithologically inclined, it is along this exposed shore in deepest winter that you can observe overwintering Purple Sandpipers subsisting on small worms and snails that they extract from crevices in the rocks.]

The second accessible site to recommend is at Scotts Bay, where a massive barrier beach of gravel is creeping inland as sea levels rise. Behind this wall is a tidal marsh with its attendant special-

ized flora and fauna. On its seaward slope it has relicts of long buried marshes, forests and clam beds newly exposed. Further to seaward, during extreme low tides, are miles (kms) of firm sand to explore. Unusual creatures live on and in this sand, and squid spawn upon it, not knowing that, in the Bay of Fundy, spawning 40 feet down is not always deep enough to protect their huge gelatinous egg masses from exposure to air.

A third site, which really is an exploration, is Cape Split. This requires expedition-type planning, for it involves hours of hiking, steep descents and ascents, and if one is not attentive, the risk of being cliff-trapped by roaring tidal currents. As the flood tide builds in Scotts Bay, it creates a sea level difference at Cape Split of 8-10 ft (3 m) above that on the immediately adjacent Minas Channel side.

On of the nicest aspect of exploring the Bay of Fundy intertidal muds, sands or rocks, is that you don't need any equipment to enjoy the experience. All you really need is a government tide table book, available in most book stores, to get you there on time. You can explore solo, or have a group foray, or a family outing. Gosner's *Field Guide to the Atlantic Seashore* will enhance the experience if you get familiar with the book beforehand, but you can keep things simple by simply observing and collecting only a few empty sea shells. Or you can get really serious and load up with buckets, jars, bags, trowels and shovels, cameras and note books, and bring back a collection of living treasures. Many pleasurable hours can be spent examining these creatures close up in a bowl: the effortless gliding progression of a flat worm as it flows across a rough stone; the mini-community of floral and faunal camouflage growing on the back of a decorator crab; the intricate neural orchestration of the thousands of active appendages of those headless and brainless sea urchins; and of course, the unimaginable beauty of sea slugs. (If you find the latter statement difficult to accept, then read my book *Sea Slugs of Atlantic Canada and the Gulf of Maine*, a Nova Scotia Museum of Natural History field guide publication.)

Exploring the lower intertidal of the upper Bay of Fundy on foot during extremely low tides offers a truly unique experience. For we air breathers the sea floor is an alien aqueous environment and, as you might surmise, is rich in alien creatures. The reason for this diversity of strange creatures is interesting and fundamental to appreciating your field guide catalogue of creatures.

Every basic body plan currently extant on this planet, about 32 distinct animal Phyla, had its origin in the sea, and with one jungle exception (Phylum Onychyophora), is still represented there. Of these 32, only 12 phyla have managed to produce a few forms capable of living in fresh water, (the osmotic conditions are lethal), and finally of those only 2 phyla don't have wet skins and thereby can tolerate dry air and sunlight. Thus we dry-skinned, air-breathing humans of Phylum Chordata/Vertebrata share our sun-loving, dessicating life style with members of that 1 other dead-skinned phylum, the all too familiar insects of Phylum Arthropoda. So you can see that we really don't have much contact with most of the animal kingdom because they dwell beneath the waves. If we subtract 3 purely parasitic phyla and that terrestrial one, then we are left with 28 major animal groups haunting our coastlines, most with hundreds or even thousands of species. This exotic zoological cornucopia awaits your discovery: photosynthetic animals, reproduction by fragmentation, cellulose skins, routine sex reversal, a female phylum, 30 metre worms, and more.

So who are these other 28 phyla that enjoy the good life on the beaches and in the surf? As naturalists you really should be aware of your neighbours so here is a list. The phyla with tiny individuals only are indicated by an asterix. Species numbers are tentative world totals. You will notice that some phyla have few species, but these can be abundant as individuals. Other phyla have few species listed because thousands have yet to be given scientific names. For pictures and descriptions of 410 local invertebrate species (of 14 phyla), many of which are not in the general seashore guides, examine a copy of *Keys to Fauna and Flora of Minas Basin* by Bromley and Bleakney, 1984.

## Phyla

Placozoa* - 1 species.	Brachiopoda - lamp shells, 260 spp.
Porifera - sponges, 10,000 spp.	Mollusca - molluscs - 110,000 spp.
Cnidaria - jellyfish, 9500 spp	Priapulida - worms, 8 spp.
Ctenophora - comb jellies, 90 spp.	Sipuncula - worms, 300 spp.
Platyhelminthes - flatworms, 15,000 spp.	Echiura - worms, 130 spp.
Nemertina - ribbon worms, 750 spp.	Annelida - worms, 5300 marine spp.
Gnathostomulida* - 80+ spp.	Tardigrada - few marine spp.
Gastrotricha* - 400 spp.	Arthropoda - crustacea "insects of the sea"
Rotifera* - 2000 spp, 50 marine.	Pogonophora - worms, 100 spp.
Kinorhyncha* - 100+ spp.	Echinodermata - starfish, 6000 spp.
Entoprocta* - 60+ spp.	Chaetognatha -- arrow worms, 50 spp.
Nematoda - 80000+ spp.	Hemichordata - acorn worms, 90 spp.
Nematomorpha - 230 spp.	Tunicata (Chordata) - sea squirts 100+
Ectoprocta* - 5000 spp.	
Phoronida - worms, few spp.	

Listed above are the tips of 28 icebergs of evolutionary divergence. For example, the Echinoderms are usually thought of as starfish like, but they also occur in the form of long white worms with feathery head dresses. There are hairy worms that resemble mice, and numerous "worms" that aren't. And so it is for many other phyla.

You can further explore at the shore or in your "lab" by examining morphology or behaviour or even odor. Try an olfactory experience by sniffing a tidal marsh sea slug. The little *Alderia modesta* produces a potent sweet perfume. In contrast, the large greenish-yellow sponges, growing on intertidal rocks, when pinched release a sulphurous odor redolent of paper mills. When in the infralittoral fringe, plunge your face into a bushy cluster of living *Flustra foliacea* and experience the essence of pure citronella. And of course, always carefully sniff all crab shells you pick up. Most will be absolutely odorless, or simply smell of sea salt because most are the empty outer skin of growing and moulting crustaceans. They make nice sanitary souvenirs. If your nose tells you the shell is full of rotting crab meat - drop it.

Hopefully, you are now on your way to becoming a keen intertidal naturalist. When next the moon and sun combine to peel back the oceanic waters from King County's Bay of Fundy shoreline, you are not going to join the media-influenced masses (are you?) to watch excitedly as the accumulated strand line of garbage slowly edges upwards around your ankles and onto the grassy verge. No, you are going to wait 4 or 5 hours, and then meander about in the ever fascinating, ever changing, ever challenging, intertidal alien wonderland.

P.S. The tide tables indicate that 1998 is going to have an unusually high number of low tides. Oh, I almost forgot, and lots of garbage-sweeper high tides, too.

## **VALLEY WATERBIRDS**

### ***WHERE AND WHEN TO FIND THEM***

**by Angus MacLean**

Although most of the Valley's coast does not have a wide assortment of seabirds, such as is found closer to the mouth of the Bay of Fundy, there are a number of vantage points where, in winter, there is the good possibility of seeing loons, grebes, Great Cormorant, Oldsquaw, scoters, Harlequin Duck and murre. The

best spot in Kings County is Black Rock; and as one travels further west, Margaretsville and Parkers Cove/Young's Cove are also notable spots for a diversity of waterbirds. To the east, find a lookoff on the bluff just north of Kingsport for a wide view of the Minas Basin where Red-throated Loons, grebes, scaup, Common Eiders, scoters and Common Goldeneyes are regular, and the occasional Black Guillemot or other alcid puts in an appearance. When a strong southwest wind predominates look anywhere along the coast for Northern Gannets from spring to fall; Black-legged Kittiwakes and jaegers in late summer to fall. The occasional shearwater or Northern Fulmar is also a possibility. Make sure you visit these sites a few hours before high tide to optimize the possibilities.

The eastern Valley is sprinkled with small water bodies, sewage ponds and rivers which harbor a wide diversity of ducks, geese and gulls. On the Grand Pré dykelands check out the Wolfville sewage ponds and especially the small outfall pond at the western end. Both Green and Blue-winged Teal are regulars here and other dabbling ducks also seem to appreciate the food source. On the main ponds diving ducks such as Bufflehead are occasional and Iceland Gulls are a staple in winter. West of Wolfville, Elderkin's, Stirling's and Hennigar's Ponds are secluded areas where surprises have been found. The two former ponds can be reached by going down Cherry Lane to the railroad tracks, then walking west. A possible bonus is finding a rare sparrow, warbler or other small passerine in the scrub along the tracks. Hennigar's Pond can be found behind the market in Greenwich; ask for permission to do a closer check of the pond.

The gate to the sewage ponds at New Minas is open Monday to Friday and the operators are very tolerant of birders. Turn on Jones Road at the fire station, go to the end of the paved road and follow the gravel road west to the site. Check out each of the ponds carefully since some species like to lurk in the vegetation and are not readily evident. These ponds attract many species and such rarities as Ruddy Duck, Canvasback, Wilson's Phalarope and Lesser Black-backed Gull have appeared. The sewage ponds at Port Williams are a mandatory stop for birders in spring and fall. Besides the usual Mallards, Black Ducks, teal and American Wigeon, more often than not, a rarity shows up such as Shoveller, Ruddy Duck, Greater or Lesser Scaup.

Travelling north on Route 358, take the next right to Starr's



Point and then the second left (just past house # 1400). About halfway on this short road, check out Van Oostrum's Pond on the left. Approach cautiously to avoid flushing the waterfowl. Bitterns, rails, sparrows and blackbirds are an added attraction here. After driving a short distance north you are on the upper side of the Starr's Point loop. Drive west, cross Route 358 and a short distance beyond, you will find Church Street Pond. Hooded Mergansers are regular here in fall and other species are commonly seen. Continuing west on Church Street turn left at the t-intersection (on Route 341). Check in at the sewage pond on the right. There are always a few waterfowl around the edges and take the time to look for any rarities among the ever-present gulls. Route 341 swings east and after about 4 km, you will reach Canard Pond, the largest accessible waterbody in the area. Many duck species feed here and rarities are often reported. Again it is worthwhile to check out the (usually) large gull flock for those wanderers from Eurasia or elsewhere. Continuing on, turn left towards Canning (on Route 358). When you reach Canning, park behind the Trinity United Church and walk down the path to Harris's Pond. Well known as American Wigeon heaven, it also hosts many other waterfowl species. If there are exposed mud edges, watch for Sora Rails. Immatures in particular like to saunter around the fringes in late summer. While you're in Canning check out the Habitant River, accessible from the Legion parking lot (just past the post office). Over the years many surprises have been found and you may be lucky. In spring and fall, the area from Canning to Canard is superb for large numbers of noisy Canada Geese and a few Snow Geese are often mingled with them.

If you still have some energy left, drive west towards Sheffield Mills and once just past the community turn right on Middle Dyke Road (at house # 8707). After a short distance the road bisects a marsh. Check out both sides, especially the east side. Be patient as the ducks are often hidden in the vegetation. Retracing your route, continue south on the Middle Dyke Road to Saxon Street and turn west (right). After a short distance a small stream and pond will come into view. (The pond is controlled by a dam which is removed unpredictably). When the dam is in place, good numbers of dabbling and diving ducks can be found.

Continue on Saxon Street, turn left on Gibson Woods Road and head to Kentville. On the west end of Kentville, turn into the Evergreen Nursing Home. (Parking is permitted but make sure

you don't block any access). Walk through the gate, across the railroad tracks and follow the path along the edge of the bog to the Cornwallis River. Here male Wood Ducks and Green-winged Teal congregate, after their short stint in the nesting cycle, to wait out the molting period. Wigeon, Blue-winged Teal, Mallards and Black Ducks use the area from spring to fall. Along this trail numerous warblers, sparrows and other passerines can be found in spring and late summer to fall. Many of our rarer species have been sighted in this area so be alert.

There are two publications available which will aid your search for these beautifully plumaged birds. Much information on specific species and their haunts can be gleaned from the *Birds of Kings County* a publication of this Society, and *Birding Nova Scotia*, published by the Nova Scotia Bird Society, will provide additional useful information.

In the next issue we'll review the opportunities for viewing those spectacular long-distance migrants, the shorebirds, as they pause on our shores on their way to South America.

### BNS BIRD SIGHTINGS JAN 1 - MARCH 24 1997

Richard Stern, Kentville

I have not attempted to include sightings from the 1997-8 Christmas Bird Counts, as these have already been covered in the previous Newsletter. The following are some other local highlights from this winter season.

**GREAT BLUE HERON** -- Late lingering individuals were around in Coldbrook (JWW) and at Saxon St. Pond (RBS) in late Jan. - presumably there was still enough open fresh water to support some food for them.

**WATERFOWL** -- Four

**NORTHERN PINTAIL** were present with the **MALLARD** at Stirling's Pond Jan. 27 (JWW). The latter species seem to be becoming more common in our area compared to a few years ago, and this goes along with the general impression in the literature that Mallards are thriving at the expense of the American Black duck. There were 60+ Mallards at Stirling's Pond Feb. 16 (JWW). **COMMON GOLD-EYE** were present on our rivers in small numbers as usual, e.g. seven at Gaspereau 11 Jan. (JWW) and four on the Cornwallis at Coldbrook early

March (RBS).

**HAWKS** -- A few individual **SHARP-SHINNED** and **MERLIN** were reported, flying over or in the vicinity of feeders. One or two lingering **NORTHERN HARRIERS** remained in suitable open habitat. The annual eagle count on the 1st Feb., the first fine day for 2 weeks, revealed 395 **BALD EAGLES** (down a little from last year), 43 **RED-TAILED HAWKS** and six **ROUGH-LEGGED HAWKS**.

The Bald Eagle's nest at White Rock fell down as a result of the ice storm in late Jan., but BLF has put up an artificial replacement. GDE saw about a dozen attack and kill a lone Black Duck in the water, Feb. 15. The Red-tails of U-Hall at Acadia are nest building again, and seem to have a new nest to the right of last year's. The adults were active around the nest by early March. The albino red-tail was seen again in its usual spot along Saxon St., for the 9th successive winter, in late Jan. (BBT). It is all white except for some black feathers on the crown, and a reddish wash on the tail. A **PEREGRINE FALCON** was seen near Canning on 25 Jan. (RM) and again at Lr. Blomidon, preening for about 45 mins., on 31 Jan. (AW).

**GULLS** -- A few **GLAUCOUS** and **ICELAND** gulls have been present as expected in the large flocks of **HERRING** and **GR. BLACK-BACKED** that frequent our region all and every winter. An adult **LESSER BLACK-BACKED** of the expected *graelisii* race from the U.K. was present in the gull flock at Meek's Farm, Canning 27 Feb. (RBS). In the last few years we have had 1 or 2 individuals of this species, becoming more common on this continent, every winter. **RING-BILLS** have been starting to show up, as expected, in higher numbers, in the area, from early March on.

**HUNGARIAN PARTRIDGE** -- Becoming increasingly rare, a small flock was at Starr's Point in early Jan. (WM), and early March (EDL), and some have been seen at Blueberry Acres (MAG).

**OWLS** -- Up to eight **SHORT-EARED OWLS** could be seen in and over the ditches along the dykes at the west end of Grand Pré during Jan. (many obs.). Another group of eight was reported from Belle Isle Marsh, Ann. Co. on Jan. 30 (TP). **GREAT HORNED OWLS** returned to BLF's platform in the woods near Melanson in early Feb., and another was hooting near Evergreen Nursing Home

woods, Kentville after dark on Feb. 11 (RBS). **BARRED OWLS** were vocal in their usual locations (e.g. Wolfville Ridge, Kentville) in late Feb./early March. **JGCT** were awoken by the monotonous, but under the circumstances pleasant, "tooting" of a **SAW-WHET OWL** in early March.

**WOODPECKERS** -- As per last winter, there seemed to be quite a few **COMMON FLICKERS** around, e.g. in Wolfville and Kentville all winter (m. obs.). **PILEATED WOODPECKERS** are also frequent now in our area, and both **JJC** and **RBS** have had them coming to backyard suet in Kentville in late winter.

**AMERICAN ROBIN** -- Continued to be common in small numbers all winter wherever there was food, e.g. unpicked or fallen apples in orchards. **JCT** heard one singing in late Feb., and **JWW** notes 100+ at Grand Pré Feb. 18.

**NORTHERN MOCKING-BIRD** -- The apparently resident Grand Pré bird was still present Jan. 18-24 (**BBT**, **JWW**), and other individuals have been seen in Wolfville and Port Williams in Feb.

**WAXWINGS** -- There were huge flocks of **BOHEMIAN**, and small ones of **CEDAR**,

mostly in the vicinity of orchards and berries all winter all over the area. Many flocks were mixed, and contained both species.

**SPARROWS** -- **SONG**, **SWAMP**, **SAVANNAH** and **AMERICAN TREE SPARROWS** remained present in fair numbers around the Wolfville sewage lagoons and in the fields nearby. **WHITE-THROATED** were also present in various locations. Late lingering **FOX SPARROWS** were present in Avonport and Port Williams, at feeders, well into winter. An immature **WHITE-CROWNED SPARROW** was seen by **BLF** at a feeder at Grand Pré in late March.

Of more interest, however, was the presence of 3 different species of the family *Ammodramus*, at one location. A **NELSON'S SHARP-TAILED** was seen just before Christmas near the Wolfville sewage plant (**BBT**). Slides have confirmed that this is probably one of our local breeding race (*subvirgatus*) just hanging on late. While searching for it in early Jan., **BLF** found a similar sparrow, but slightly smaller and brighter, with a prominent median crown stripe. This turned out to be a **LE CONTE'S SPARROW**, a rare visitor from prairie habitat in the mid-west, and only the 3rd

provincial record. It remained very co-operative and stayed around till at least March 10. It is believed to be the first over-wintering record in Canada. Then while searching for that bird, RBS found the 3rd member of the group, a **SEASIDE SPARROW**, a rare visitor from farther south. This one is rather darker, with a characteristic facial pattern. Unfortunately, it only stayed for a few days.

**COMMON GRACKLE** -- Perhaps early this year, some appeared in the New Ross area on 10 Mar (IR).

**WINTER FINCHES** -- The most prominent examples of this group were the flocks of **COMMON REDPOLL** that roamed all over the area all winter (e.g. 100+ Feb. 13, JCT, 400 Mar. 4, EU). They were not particularly partial to feeders, as there was plenty of wild seed for them. This is a species that "irrupts" south from its more northerly breeding grounds every few winters, and this was clearly one of them. A couple of people (e.g. SMC, NN) have had pale-looking individuals with apparently unstreaked light rumps, that could well have been **HOARY REDPOLLS**, with them, and some photos have been taken that should confirm this.

**PINE SISKINS** had been common earlier in the winter, but then seemed to disappear.. A partial albino **AMERICAN GOLDFINCH** was at South Alton in late Jan. (EM). A few **WHITE - WINGED CROSSBILLS** were also noted in the area (JCT).

A number of dead and dying finches have been found, particularly around feeders, and mainly in late winter. An outbreak of avian salmonellosis is believed to have been the cause.

**NORTHERN CARDINAL** -- Single males have been visiting feeders on Sutton Road, Pt. Williams (MR) and PCS's house in Wolfville, as well as one on Wickwire Road there on 15 Feb., but not the large influx we had a few years ago.

**PINE GROSBEAK** -- Seemed fairly common in several locations in the area this winter, e.g 20 at Avonport Jan. 5 (JWW).

**SNOW BUNTINGS AND SIMILAR** -- BPT saw several flocks of several hundred each in the Kingston and Aylesford areas Jan. 13. There seemed to be plenty of small flocks of **HORNED LARK** in fields around Canard and Grand Pré at different times during Jan. On at least one occasion there were a few **LAPLAND**

**LONGSPURS** with them at Grand Pré. A small group of **AMERICAN PIPITS** stayed around the manure pile near the Wolfville sewage plant. Flocks of all of these species were becoming more prominent again, as expected early migrants, by late March.

JJC John and Jackie Connelly  
 GDE Giselle d'Entremont  
 MAG Merritt Gibson  
 EDL Ed LeBlanc  
 EM Eleanor Macintosh

WM Bill Martell  
 SMC Sheila McCurdy  
 RM Randy Milton  
 NN Nancy Nickerson  
 TP Terry Power  
 IR Ian Ross  
 MR Margaret Russell  
 BBT Bill/ Brenda Thexton  
 BLF Bernard Forsythe  
 PCS Peter Smith  
 RBS Richard Stern  
 JGCT Judy and / or Gordon Tufts  
 EU Eva Urban  
 JWW Jim Wolford  
 AW Anne Woolaver

**TRIVIAL TIDBITS**  
**of Local Natural History**  
**- late December 1997 through March 1998 -**

selected & compiled by Jim Wolford  
 Site 1, Comp. 61, RR3 Wolfville, N.S. BOP-1X0 542-7650

**SKIES**

Feb. 26 - our local skies were heavily overcast and hid the **partial Solar eclipse**, but two of our astronomers enjoyed clear skies and the entire eclipse, including **totality**, on two different Caribbean islands (RB,SW).

Mar. 12 - at 9:28 p.m., **two fireballs** were seen, only a few seconds apart, from Wolfville -- first a bright whitish-blue teardrop-shaped light fell in the west and disappeared, followed by the second one -- each seen for 2-3 seconds (JT,LC).

Mar. 14 - a beautiful complete ring of light, a **halo**, coloured like a faint rainbow, was noted

around the Sun from 11 a.m. to 1 p.m. (PM,JW).

**FUNGI & PLANTS**

mid Feb. - several (16?) victims of **Dutch elm disease**, namely big **elm trees**, that had been girdled several months ago (why?), are now being taken down all over Wolfville (JW).

March 31 -- 2 dandelions bloomed between 0930 and 1430 under the watchful eyes of a keen horticulturalist and flower watcher (WL).

**INVERTEBRATES**

Dec. 30 - in Wolfville, 4-5 active **flies**, probably **midges**

(somewhat like mosquitoes but larger and different), hovering around and on windows and cedar bushes (JT).

Dec. 31 - along Jean's newspaper-route in Wolfville, on top of a fresh skiff of fresh snow, there were 20+ hairless **caterpillars** (mostly one species, in various lengths/stages, perhaps **cutworms** or **armyworms** of noctuid moths), 4 **sowbugs** or **wood lice**, and a **green lacewing**, most of them alive but slow -- they must have been active in the warm weather of Dec. 30 and then got caught when the temperature dropped -- Jean took the fragile lacewing home and tucked the others under bushes or leaves (JT). (Our resident expert on insects, Dick Rogers at the Kentville Agricultural Station (679-6029), guesses that the above **caterpillars** are of the **yellow-banded? underwing moth**, *Catocala cerogama*. He says there have been lots reported and sent in



underwing moth

this winter, and they've been active in people's yards on warm days. (The food-plant of these caterpillars is linden or

basswood leaves.) (Thanks, Dick.)

Feb. 13 & 20 - 4+2 more of the above **caterpillars** found in one area in Wolfville, on above-zero-temperature and drizzly days (JT).

early Feb. - on a farm on Wolfville Ridge, a chicken was seen eating some of the above **caterpillars** (MP).

Mar. 10 - in afternoon of an above-zero-temp. day, tiny **black ants** were active on a house window-ledge in Wolfville (JT).

## FISHES

Dec. 31 - the bay at Cannings Cove, Newfoundland, sud-



denly was full of **herring** and very large **Atlantic cod**, and the cod were chasing the herring right up on the shore, where the unprecedented spectacle attracted lots of attention and was filmed (CBC).

## MAMMALS

Feb. 19 - in a Wolfville Ridge

back yard, under small spruce trees providing cover for birds at feeders, a **short-tailed shrew** was seen eating either cracked corn? or sunflower



seeds? (JGT).

Jan. 24 - an unidentified **small mammal** (mouse?) with a long tail was seen running across snow in a Wolfville Ridge back yard and then popping down a hole in the snow (JGT).



Feb. 15 - on Wolfville Ridge, a **field vole?** ("field mouse"?) ran across snow/ice and down



a hole under the sunflower-seed feeders -- the 4th sighting of this for the winter (JGT).

Dec. 21 - two **chipmunks** still active! on South Mountain -- their burrows are located immediately adjacent to a house (AJK).

Feb. 9 - 3 **northern flying squirrels** seen at night at a feeder, after sunflower seeds (JGT).



Jan. 11 - a sleeping **porcupine** seen in a tree on Maple Ave. in Wolfville, near the compost-recycling area, at noon (DB).

Feb. 8,9,11,15,16 - a very slow, confused, and oblivious? **porcupine** has come out of the woods very near a house, west





of The Lookoff, for a few minutes at a time, apparently foraging on bark; it often walks in circles, has one stiff hind leg, and once bumped into a tree (EBM). Is it just normally myopic (TH)? or perhaps blind?

Feb. 21 - a **muskrat** seen in a Wolfville back yard -- it collected an apple and returned to the nearby pond (DGT).

Feb. 5,12,17,18 - individual **skunks** road-killed at Windsor, Falmouth, Hantsport, & Avonport, respectively (coinciding with relatively warm weather) (PM,JW). **NOTE:** Recent research on DNA and other features has suggested that **skunks** should be taken out of the the weasel family and placed into a new family of their own (Mephitidae).

Feb. 18 - at 6:30 p.m. on a fairly warm evening in Wolfville, a **raccoon** was active, not far from my bird feeders, where I had suspected raccoon depredations earlier in the month (JW).

Feb. 1 - a **red fox** road-killed along hwy. 101 near the King's/Hants border (DGT).

Jan. 24 & Mar.5 - a **red fox** seen on these two mornings, plus tracks and odor on other occasions since late January, on the dykelands north of

Wolfville's Cherry Lane (MB).

Jan. 25 - in mid morning, a **coyote** was seen running on the dykelands between Wolfville's Cherry Lane and Port Williams (MB).

early Feb. - a **coyote** was seen 2-3 times in eastern Wolfville, just north of Tideways Senior Citizens' Complex (HF).

Mar. 4 - a **coyote** was seen along hwy. 101 between the two Hantsport exits (Hd).

early Feb. - several media reports of baby **gray seals**, **harp seals**, and **hooded seals**, in various places such as Halifax's Point Pleasant Park, Purcell's Cove area, etc. (newspapers & TV news).

Mar. 8 - a large "**blueback**" or **baby hooded seal** was found, approached very closely, and photographed (documented!) along the dyke on Oak Island, north of Avonport -- this animal is a very long way from "home", since it and the better-known **harp seal** live in the high arctic for most of the year and then migrate south to have pups on the sea ice off Newfoundland and in the Gulf of St. Lawrence in Feb. & March -- whereas the harp seal is fed rich milk for about two weeks, the "blueback" gets fed extremely fatty milk for only four days!

-- this pup was about 1.3 metres long -- what are the odds that this vagabond found its way out of the Bay of Fundy and to the arctic? (TM,LH).

**Note to all observers of "SEALS":** We naturalists have to be more aware that there are **different kinds** of seals. Generally those seen around King's County are **harbour seals**, but adult **gray seals** are always possible (very flat profile of head/face with no "forehead"). Also the weaned and then abandoned **pups of gray, harp, and hooded seals** are well-known to wander erratically both in the sea and even on land (JW).

Jan. 26 - 3 **killer whales (orcas)** were stranded near Terranceville, Nfld. (Burin Peninsula) -- one died, one got away, and the other seemed hurt (HDN).

Dec. 23 - 2 **finback whales**, identified by the height and shape of their spouts, were seen off West Light, Brier Island (PH,LM,RS,JW).

Mar. 3 - a 20-metre, 40-tonne, young **blue whale** was found dead, perhaps from a ship-collision?, 11 km. offshore from Rhode Island -- it was towed to a beach for an autopsy (JT,ATV,HCH). (Just to show that this was a **young whale**, blues grow to 33 metres

and 200 tonnes.)

Dec. 21 - nine **white-tailed deer** resting under apple trees on South Mountain (AJK).

Feb. 21 - 10 **white-tailed deer** ran out of one woodlot near Gaspereau? (EG).

mid Mar. - a herd of 13 **white-tailed deer** overwintered at the Kentville Agricultural Research Station (someone reported at March BNS meeting -- who?).

#### CONTRIBUTORS

ATV - ATV News  
DB - Dolores Burton  
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PM - Pat Martin  
TM - Terry Murphy  
HDN - Hfx. Daily News  
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JT - Jean Timpa  
JGT - Judy & Gordon Tufts  
JW - Jim Wolford  
SW - Sherman Williams  
WL - Wanda Langley

## WHAT'S IN THE SKY?

by Roy Bishop

New Moon: Mar. 27, Apr. 26, May 25, June 23

Full Moon: Apr. 11, May 11, June 10, July 9


Daylight saving time begins on Sunday, April 5.

Summer begins on Sunday, June 21 at 11:03 am (ADT)

### *The Changing Sky*


With the arrival of geese and robins, the bright stars of the winter sky are becoming lost in evening twilight and the Milky Way lies hidden near the horizon. Although the spring night sky has fewer bright stars than

those of either winter or summer, it is also less obscured by the dust in the plane of our galaxy. As a consequence, through a telescope countless other galaxies are visible at this time of year. Many an April or May night




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the calls of spring peepers have serenaded me as I wander through clusters of galaxies tens of millions of light-years from Earth. The music of peepers wafting across dark fields blends well with intergalactic space.

### *Planets*

After the outstanding display of planets in the evening sky last autumn, the evenings of the spring of '98 are planet-poor. However, if you are awake before sunrise this spring, you will find Venus and Jupiter low in the east-southeastern dawn sky. Venus is the brightest star-like object and Jupiter will be obvious too. On successive mornings during the first three weeks of April, Jupiter and Venus move closer and closer together in the dawn sky.

### *April 23 Dawn!*

If the sky is clear on the morning of Thursday April 23, your alarm clock should be set for 5:15 am. Near the eastern horizon between 5:15 and 5:45 am will be a celestial spectacle consisting of the two brightest planets, Venus and Jupiter, paired close above the crescent Moon (Venus is the brighter, on the left). Binoculars will give an especially nice view of these three bright objects so close together. However, you will need a clear view of the eastern horizon without any



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obstructions because the Moon and the two planets will be low in the sky. If hills, trees or buildings block your eastern horizon, get up 20 minutes earlier and drive to a spot where the eastern horizon is accessible.

Incidentally, before dawn on April 23 people on Ascension Island in the South Atlantic, and in the Brazilian coastal city of Recife will, with clear skies, see the crescent Moon pass in front of Jupiter and Venus. Both planets will be occulted (hidden behind the Moon) for several minutes. This is an exceedingly rare event --- this is the first time it has happened in the past 400 years! Being further north, we will not see the double occultation, but because Nova Scotia is on the east coast of North America, we (and people in Newfoundland) have the best view obtainable from this continent. Mark your calendar, find your binoculars, set your alarm, and hope for a clear sky as dawn begins on April 23!

#### *Tides*

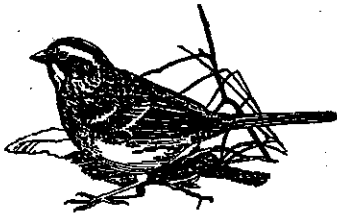
In late April the Moon is new only a day after it passes an unusually close perigee, the close point in its orbit to Earth. This produces extra high tides in Minas Basin on April 26, 27 and 28.

Check the BNS 1998 Calendar

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Oregon Grape	Privet
Daphne	Bayberry
Elderberry	Highbush Cranberry

for tide times and heights. If you do not already have a copy of this unique Kings County publication, it is available at Earthwhile Pursuits, Main Street, Wolfville, now at a reduced price. It provides a calendar, an integrated tide table for Minas Basin, twelve special colour photographs of Kings County, historical and natural history notes, and the warm feeling of having supported the Blomidon Naturalists Society in a small but tangible way.

### *Astronomy Books*

If you know a child who is interested in astronomy, a book I highly recommend is "Exploring The Night Sky" by Terence Dickinson of Yarker, Ontario. For an older person (age 14 and up), "Night-Watch", also by Dickinson, is excellent. Both are published in Canada by Camden House.

### *MAG*

The Minas Astronomy Group (MAG) meets monthly on the second Saturday at seven (SSS) on the second floor of Huggins Science Hall at Acadia. Like those of the Blomidon Naturalists Society, MAG meetings are open to anyone and MAG members are of all ages and backgrounds. Remember MAG/SSS! The contact person is Roy Bishop (542-3992).

# Blomidon Naturalists Society

## 1998 Membership Fees

Each member receives four issues yearly of the BNS Newsletter. The Blomidon Naturalists Society is a registered charity. Receipts for income tax purposes will be issued for all donations. The membership fee itself is not tax-deductible. Members may also join the Federation of Nova Scotia Naturalists through the BNS and will receive their quarterly newsletter; the membership is not tax-deductible.

Please enclose a cheque or money order payable to "Blomidon Naturalists Society" and forward to:

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