

Blomidon Naturalists Society
Spring 2001 – Volume 28 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

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Blomidon Naturalists Society

Winter/Spring 2001

Meetings

All meetings begin at 7:30 PM in room 224 of the Beveridge Arts Centre, Acadia University, Wolfville (across Main Street from the Atlantic Theatre Festival parking lot). **All are welcome.**

April. 23, 2001 (note date change) – Becky Whittam: **The Canadian Lakes Loon Survey: an Atlantic Canada Perspective.** Becky is Atlantic Canada Program Manager for Bird Studies Canada in Sackville, NB.

May 21, 2001 – Deborah Tobin (Eastcoast Ecosystems, Freeport, NS) on **Conservation of North Atlantic Right Whales.**

June 18, 2001 – Don Hendricks: **An Overview of the New Environmental Sciences Research Centre, Botanical Gardens, and Campus Meeting Place at Acadia University.**

September 17, 2001 – Bob Bancroft: **Rivers (NS) at Risk – Cry Me a River. How nasty habits have altered the natural habitat** (see *Saltscapes*, Fall 2000).

June 1–3, 2001 – **Federation of Nova Scotia Naturalists Annual General Meeting** at Lunenburg. Hosted by the South Shore Naturalists Club (see details elsewhere in this newsletter).

Field Trips

Unless otherwise indicated, all field trips begin at the Robie Tufts Nature Centre on Wolfville's Front Street (look for the tall brick chimney just west of the NS Liquor Commission store).

Sunday, April 29, 2001 – **King's County birds**, for both the Nova Scotia Bird Society and BNS, 10 AM, leader Jim Wolford (902 542-7650). Bring lunch, field guides, binoculars, and scopes.

Other field trips will be announced at BNS meetings.

Invasive Species

**by Mark F. Elderkin
& Sherman Boates**

The International Union for the Conservation of Nature (IUCN) and World Resources Institute recently reported that invasion of natural ecosystems by non-native species now ranks second only to habitat loss as the major threat to global biodiversity. The story of invasions by non-native species is fascinating and is inextricably linked to the earliest beginnings of human history. In North America, settlers who colonized the eastern seaboard brought with them livestock, crops, pets, pests, and plants from their homelands in Spain, France, and England. Today the living legacy of our early ancestors in North America can be seen all around us through the biological pollution of species that survived them.

While it is true that the impact of introductions has been economically beneficial in some cases, it has been the source of disastrous consequences in many others. A recent report by Stuart Pimental and his colleagues (2000) indicated that the economic cost of invasive species in the United States is estimated at \$137 billion every year. The cost cannot be measured in dollars alone, however, given the extent of irreversible environmental degradation, disease epidemics, food and water shortages, and unemployment. In Canada we are only now beginning to examine and consider the impact that invasive species have on our lives.

Any organism that has been moved from its native habitat to a new location can be thought of as non-native, exotic, introduced, or alien to the new environment, but it is not necessarily invasive. For example, domesticated species that cannot survive in an area without human maintenance – as is the case with many forms of livestock – are not normally considered invasive unless they can adapt to the natural environment. Still other non-native species are impeded by environmental factors in the new location and cannot breed or disperse and as such have benign effects on native wildlife. True invasive species are typified by their ability to adapt readily to new environments and, more often than not, they can breed, disperse, and displace native species from natural ecosystems.

Invasive species that proliferate in Canada tend to be those that originate

from other temperate regions of the world. Species introduced from warm, arid, tropical, and subtropical regions seldom survive here because of their inability to tolerate our cold winters.

Over the last century improved technologies and access to transportation via land, water, and air have accelerated the rate at which species invasions now occur. Consider the fact that in the San Francisco Bay area of California the rate of successful aquatic species invasions has climbed from a new species every 36 weeks in the 1850s to one every 24 weeks in the 1970s to as many as one every 12 weeks over the last decade. Consider also that of the 3,160 species of vascular plants known in Canada, about 28 percent or 881 of them are known invasives. Consider the fact that 12 of Newfoundland's 26 wild mammalian species (46 percent) are the product of human introductions.

Among the vertebrates that occur in Nova Scotia, fresh water fishes have proportionally the greatest number of introduced species (eight), including localized introductions or the entire provincial population of Lake Whitefish, Rainbow Trout, Brown Trout, Lake Trout, Chain Pickerel, Goldfish, Smallmouth Bass, and Rainbow Smelt. The rapid proliferation of Smallmouth Bass and Chain Pickerel in most major lakes and rivers in mainland Nova Scotia is the result of their illegal introduction by sports fishermen. Both of these alien fishes now threaten the last remaining population of Atlantic Whitefish known in the world on the Petite River.

Introductions of birds over the last two centuries has given us House Sparrow, European Starling, Ring-necked Pheasant, Gray Partridge, Wild Turkey, Bobwhite, and House Finch. Failed introductions of birds in this province include Willow Ptarmigan, Capercaillie, Chukar, and Coturnix Quail to name a few. Insects too have been deliberately or inadvertently introduced; they include the Honey Bee, Cabbage Butterfly, European Skipper, and a multitude of others.

The next few issues of the Blomidon Field Naturalists Newsletter will present an interesting series of articles by various authors documenting the history of invasions of species in the province. Without question, the most significant invasive species here as elsewhere has been humans. The story of invasions of species is one in which human immigrants

from foreign lands brought with them wild species as they clung to the past and were ill equipped or unwilling to work within the natural environments of the new land. It is the story of an ongoing search for new economic opportunities in agriculture, forestry, fisheries, and wildlife management. It is also the story of human blunder, ill-conceived plans, disease, pestilence, greed, and deceit.

The story of invasive species presents a fascinating opportunity for us to look at our environment and to reassess the actions of our predecessors in the Annapolis Valley as far back as the Acadians. It provides us with rare insight into the human character, about where we came from and where we may be going. It is the story of species hitchhiking from distant places, of great escapes, mysterious appearances and of war-faring colonizers engaged in a high stakes game of competition with native species. It is a story of species extinction, extirpation, and competition for limited space and resources. Finally, the story of invasive species is the story of a fascinating period in the evolution of the planet we call Earth.



A nature walk through history, V

A Naturalist Visits Jawbone Corner

by Merritt Gibson

I visited Canard frequently during the late 1700s and early 1800s. For a naturalist this was a time of many exciting changes. The Canard peninsula was a long point of land extending out into the Minas Basin. It was bordered by the Canard Creek to the south and the Habitant Creek to the north. Both creeks filled with water at high tide.

On my first visit in August 1750, I hiked along the peninsula through a magnificent forest, for much of the land had still not been cleared for farming. There were many mature trees, some 30 metres tall. Giant pines, hemlocks, maples, and oaks were the most numerous species. The streams and ponds were filled with ducks, and ducks collected into huge rafts on the creeks when the tide was high.

I especially wanted to visit the dyked lands. For some years, the Acadians had dyked sections of marshlands to claim them for farming. At first the sections were small but, as they were extended, the dyke walls joined with those of neighbours and enclosed larger sections. Eventually, the outer walls were joined to form two dykes running east-west near the river: the Bowan Dyke on the Canard side and the Long Dyke on the Church Street side. The Acadians also constructed the cross dyke running north-south and enclosed the entire Grand Dyke. (The cross dyke was only a short distance west of the present Port Williams to Canning highway.)

I spent one day at a construction site where the workers had unearthed some old tree stumps. A mature forest once covered the Canard marshlands, and others around the Minas Basin. As the waters of the Minas Basin rose, these forests were flooded and gradually buried in sediment. It was difficult to identify these trees at Canard, but one (uncovered much later) was a pine tree. It was about 200 years old and had been buried about 1,500 years ago.

I discovered new plants on every trip to the dyked lands. Before the Acadians arrived there were few fields, and native field plants were

scarce. By dyking marshlands and clearing forests, the Acadians created fields, a new habitat, and they imported plants that quickly spread across them. Rose-coloured Yarrow and Tansy were imported for medicinal purposes and soon escaped from the gardens. Seeds of field plants were also spread with imported hay seed. Wild Chives, Caraway, and Chicory were introduced for culinary needs; they also spread into the new fields. White Champion and Ragged-robin, perhaps imported for decorative purposes, soon formed large white and red patches on moist dykelands.

I was always curious when I found patches of marsh plants growing on dyked fields. Cordgrass and Glasswort sometimes persisted there for six or seven years. How did they survive? Presumably they grew in low areas where salt accumulated as the fields dried, creating local “salt marsh” habitats.

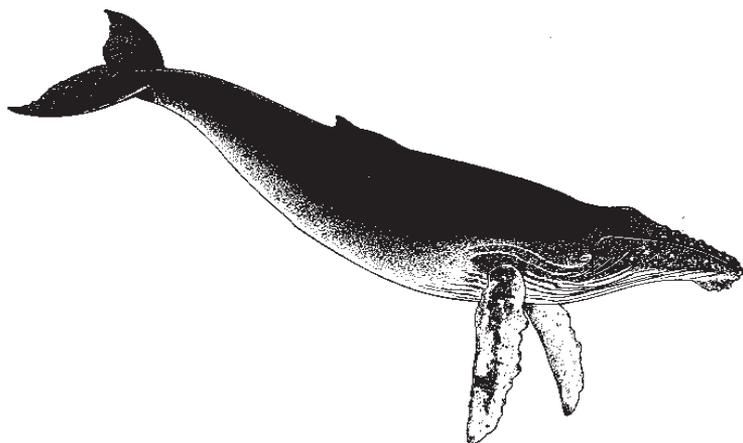
On one visit I was lucky enough to be on the dykelands when large flocks of shorebirds arrived. It was during high tide and the birds were flying in from the Basin to roost on the fields. Red-backed Sandpiper (Dunlin), Little Sand Peep (Least Sandpiper), and Black-legged Peep (Semipalmated Sandpiper) were the most numerous. There were also many Beetle-head Plover (Black-bellied Plover) and Big Yellow-legged Plover (Greater Yellow-legs), and I was surprised to see so many Little Curlew (Eskimo Curlew), for I thought they arrived later in the season.

Regrettably, the dykes were neglected after the Acadians left in 1755. They quickly deteriorated, and on my visit in 1780 I saw that much of the south section had washed out during the storm in November 1759. The fields were again flooded with salt water, although many of the earlier property dykes remained, protecting individual farms. The break was not repaired until the Acadians returned to help in 1783.

In 1850 I visited Dr. Hamilton, a friend and medical doctor. His home was a beautiful one, built by Handley Chipman in 1777 at a cost of 50 pounds. When Dr Hamilton purchased it in 1836, it was one of the oldest homes in the Canard area. Dr Hamilton lived on the northwest corner of the intersection of the Kentville-Canard and Port Williams–Canning highways. The intersection was appropriately named Hamilton’s Corner.

In the mid 1800s, a set of whale's jaws were found on the dykelands and erected on the lawn of the Hamilton house. This whale had been stranded on the *inside* of the dyke wall, on the Church Street side. The intriguing questions: How did it get on the dykelands inside the wall? Did it swim through when the wall was broken between 1759 and 1783? Was it stranded before 1755, before the Acadians built the cross dyke? Do whale bones last for 70 to 100 or more years? What type of whale was it? There were no tooth sockets, and local toothed whales that ascend rivers are too small. It must have been a baleen whale. Fin Whales infrequently swim up rivers, Minke Whales are smaller but do become stranded on tidal marshes, and Humpback Whales regularly enter tidal rivers and become stranded. Were these the jaws of a Minke or Humpback?

Today (2001), the Grand Dyke wall has been ploughed back into the fields and replaced by the Wellington Dyke located farther east. The giant trees are gone, Dr Hamilton's home is still beautifully maintained, Eskimo Curlew are almost extinct, and Minke and Humpback whales still swim up the neighbouring Cornwallis River. The intersection at Canard is still known as Hamilton's Corner, but few people know it by that name. Everyone knows it as Jawbone Corner!



21st Annual Cyril K. Coldwell Eagle and Raptor Count of Eastern King's County February 10, 2001 by Jim Wolford

As usual, we sent out field parties to designated areas for just one hour (10 to 11 AM) to minimize double counting, and reported back to the Acadia University Biology department coffee room. Conditions were warm (at least 7° C) and fairly wind-free; the landscape was very snowy, with high piles of plowed snow along many roads. Many dykeland roads were inaccessible because of too much snow and ice. Fog persisted in northern areas, particularly along the North Mountain to Scots Bay. The sky was overcast with light to dark gray patches. I believe that Red-tailed Hawks were particularly difficult to see without a lot of scanning with binoculars. The eagles, however, were generally easy to spot.

The 35 observers were divided into 16 field parties, and the area searched was bounded by Kentville, Centreville, Sheffield Mills, Woodside, Medford, Kingsport and Canning, Avonport, Hortonville, Gaspereau Valley, Black River, Sunken Lake, and White Rock.

At the end of the day, sightings totaled 387 Bald Eagles (of the aged eagles, 59 percent were adults, 41 percent immature), 94 Red-tailed Hawks, and two Rough-legged Hawks (one each of light and dark colour phases). Hot spots for eagles were east and north of Canning (88), Grand Pre area (61), Gaspereau Valley (60), Sheffield Mills (55), and south of White Rock (42).

I'm sure that we missed at least 2 Rough-legged Hawks, and our count is poorly designed for detecting small raptors such as Sharp-shinned Hawks, Merlins, and owls. A year ago (see Spring 2000 BNS Newsletter), we had a record 580 eagles, another record 164 Red-tailed Hawks, seven Rough-legged Hawks, one Peregrine Falcon, two Sharp-shinned Hawks, two Merlins, and one Short-eared Owl.

Several groups reported numbers of pheasants, lots of robins, many flocks of Horned Larks and a few Snow Buntings. Six Mockingbirds

were reported (five from the Canning area, one from Port Williams. Bernard Forsythe also saw five Common. Mergansers and one Common. Goldeneye.

Field Trip for Sea Ducks (Annapolis, Digby, and Margaretsville areas) by Jim Wolford

Ten hardy participants braved the subzero and windy but sunny conditions: Jean Timpa, Mary Lou Campbell, Elaine and Don Hendricks, Elizabeth Doull, Mick O'Neill, Dave Jones and Mac Uhlman, Greg Turner, and myself.

The day got off to a good start with a lovely light-phase Rough-legged Hawk just west of the Berwick exit along Highway 101, followed shortly by a Northern Shrike west of the Aylesford exit. We then saw two more light-phase Rough legged Hawks, a few Red-tailed Hawks, and an adult Bald Eagle before Bridgetown. We had some fun with a walkie-talkie from Don Hendricks, but most of our announcements came too late for the following car with Don, Elaine, and Mary Lou.

Three people joined us at the Annapolis Causeway, and most of us saw a group of three Barrows Goldeneyes (a male and two females) and a separate male Greater Scaup. Later at Digby we saw four female or immature Greater Scaups. Thirty Black Ducks (75 with 15 Mallards) were seen here a day earlier.

East of the causeway by the ice edge was an active group of Common Goldeneyes. A single female was attracting the amorous attention of nine males that must have been feeling the lengthening Spring days. The males were throwing back their heads and then lifting them up high, and some would pursue when the female flew a couple of times.

We nearly froze from the cold wind on the wharf and causeway but saw a single Canada Goose, 10 Buffleheads, and many Red-breasted Mergansers. At Digby we first birded the area of the town wharf. Elizabeth found us our first Red-necked Grebe and our only Iceland Gull (adult). We also saw several Horned Grebes and Common Loons as well as several Long-tailed Ducks, which I still like to call Oldsquaws.

North of Digby along the road to the ferry (the nice shoulder makes it easy for birders in their cars), we saw many more Oldsquaws, both species of grebes, a pair of Common Goldeneyes, and more Red-breasted Mergansers. (A week earlier I saw a Double-crested Cormorant by the salmon-farm cages). Here Elizabeth saw a single grackle on the rocky beach, and a single robin nearby. The previous day I saw nearly 10 robins in my scouting, but today they were keeping a low profile.

The group then enjoyed a warm break at the Digby Irving Station for some wonderful seafood chowder, but for some reason without any Digby scallops.

We then had time only for a drive to Port George and Margaretsville on the Fundy coast to try for some Harlequin Ducks. There we saw five Cormorants (three clearly had the white flank patches of Great Cormorants), perhaps 25+ White-winged Scoters, 12 Surf Scoters, three Black Scoters, two Common Eiders, plus more Common Loons, Red-breasted Mergansers, and Oldsquaws. Strangely, I didn't see any Grebes here either yesterday or today. There were at least two smallish, gray and white flying birds that were probably alcids, possibly Black Guillemots. (I'm puzzled that over three days of birding these areas I turned up no guillemots). Sharp-eyed Elizabeth, who birded this spot by herself ahead of us, also managed to see two Harlequin Ducks. We're all very jealous. The rest of us also saw a seal, probably a Harbour Seal.

And finally, we had an impressive view of the many icefalls on the north-facing cliffs east of the Margaretsville wharf area.

Jean Timpa kept a list of all the species seen on the trip, and I believe it totalled 30 species. Add at least three more from Elizabeth Doull (Harlequin, robin, and grackle) for 33 species.

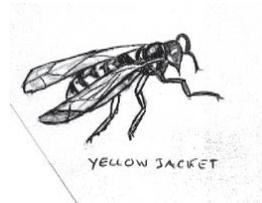
Yellowjackets and Paper Wasps

by Jeff Ogden

Yellowjackets and paper wasps are medium-sized wasps (10 to 25 mm long) with yellow and black or white and black patterns. They are social insects and are commonly found in aerial and underground colonies.

Description

Patterns on the bodies of yellowjackets and paper wasps vary greatly between species. Their bodies are predominantly black with yellow or white markings on the head, thorax, abdomen, and antennae. The abdominal markings appear as stripes.



Distribution

Approximately 20 known species of yellowjackets and paper wasps are found in Canada. Eleven species of yellowjackets have been found in Nova Scotia: four *Dolichovespula* and seven *Vespula*. The sole paper wasp species is *Polistes fuscatus* (Fab.). The 12 regularly collected species are widely distributed throughout Nova Scotia. However, the diversity of species within an area may vary greatly.

Biology

Most yellowjackets and paper wasps are highly social insects, living in colonies of several hundred to several thousand individuals. Species of *Vespula* are generally underground nesters, with occasional nests built in hollow logs, attics, house eaves, or between walls. The nest size may vary from 75 to 4000 cells. *Dolichovespula* and *Polistes* are aerial nesters with smaller colonies of 300 to 1500 cells.

Yellowjacket and paper wasp nests are built of chewed-up vegetable fibre, usually from weathered or rotten wood, but sometimes from living plants. Nests are started in the spring by the overwintering queen. The

nest consists of a number of rounded combs, often tiered and enveloped by layers of paper covering. The young are reared in these combs.

Unlike their cousins, the bees, these wasps do not store honey. The larvae are fed other arthropods (insects and spiders), nectar, honeydew from aphids, or flesh scavenged from carrion. The adults feed on nectar, juices from prey, and larval secretions.

The only members of the colony to survive the Nova Scotia winters are the fall-produced queens. These fertilized queens overwinter in sheltered areas such as under bark, eaves of homes, or rock crevices. The first warm days of spring revive the queens and they immediately begin searching for spring flowers and insects to feed on, as well as suitable nest sites. The nest begins with only 20 to 45 cells covered by a papery envelope. The queen deposits eggs in the cells as she constructs them. When the larvae hatch she feeds them nectar and arthropod prey. After thirty days these smaller female workers emerge and take over foraging for food and nest upkeep.

The queen no longer leaves the nest – her primary function is to lay eggs. The colony grows quickly as successive broods of workers emerge and begin making more cells for the queen to fill with eggs. The multi-tiered form of nest results from these multiple broods. In late summer the workers begin forming larger cells in which the males and new queens are produced. At this time the growth of the colony declines, the original queen often dies, and the wasps become more aggressive. When the new queens and males emerge, they mate, and the fertilized queens ready themselves to overwinter. The rest of the colony dies with the coming of cold weather.

Beneficial Insects



Although yellowjackets and paper wasps have a reputation for stinging

humans, they are highly beneficial insects. Their pollination of plants is not that great, but their diet includes many insect pests.

Natural Enemies

Wasps have few natural enemies. Skunks, raccoons, and bears occasionally destroy the nests and eat the combs. Birds such as robins stand near the entrance of underground nests and eat entering foragers. Other insects such as ichneumon wasps can be parasites of yellowjackets. The ichneumon eggs are laid near the pupae cells and the larvae of the ichneumon feed on the yellowjacket pupae. Certain flies eat both dead and living larvae and pupae. There are also social parasitic species of yellowjackets. The parasitic queen has no workers of her own, but relies on the workers of her host to rear her young in their own nest.

Control

Even though yellowjackets are beneficial insects there are times when they do become pests, especially around homes. The best time for control is after dark, when the colony is resting. For aerial nests or nests on house eaves, total nest removal or spraying insecticide (e.g., WaspBlaster) into the entrance works well. (Warning! Do not use a flashlight when applying the insecticide or disturbing the nest. Once disturbed by movement or spray, the wasps may come barrelling out of the nest and head for the only thing that they can see – you holding a flashlight.)

Subterranean nests can be destroyed by pouring liquid insecticide into the hole and plugging the entrance with cotton. Insecticidal dust is effective on nests between walls; foraging wasps carry dust sprinkled on the entrance into the nest on their return. Non-chemical traps, such as various baits over water or pans with sugared water, drown many worker wasps but do not usually control the colony. Proper garbage clean up and removal of small queen-made nests early in the spring are preventive measures can help ensure fewer clashes with these wasps.

Stings: their effect and treatment

The one characteristic of yellowjackets and paper wasps that people remember is their sting. The stinger is not used to paralyze prey, as is the case with some wasps, but is a form of defence. Reactions to a wasp's sting vary from nothing or a slight bump, to nausea, dizziness, and laboured breathing. In the most severe cases the venom may bring on

anaphylactic shock, resulting in lowered blood pressure, unconsciousness, and even death. Reaction time from a yellowjacket sting can vary from mere seconds to several hours. If any of these symptoms occur medical attention is warranted.

Treatment for wasp stings varies as much as the reaction. A cold compress on the stung area will slow the venom flow and relieve some of the pain. Washing the wound will lessen the chances of any secondary infection. Antihistamines should be given orally to counteract the venom's histamine. Commercial products such as Stop-Itch also work. People with severe allergic reactions need to carry epinephrine syringe kits. The best method of preventing a wasp sting is avoidance; if you do not bother the wasps they generally will not bother you.

(This article originally appeared in Insectary Notes, newsletter of the Nova Scotia Forest Insects Laboratory at Shubenacadie, September 2000. It has been edited for house style and space.)



Celestial Birds

by Roy Bishop

Many people can point out the Big Dipper in the night sky, and some people recognize Cassiopeia and Orion. But how many people, birders in particular, can identify the avian constellations, or know how many birds have been immortalized in the stars, or can name even one of these patterns?

The entire sky is made up of a patchwork of 88 official constellations, the same as the number of keys on a piano. Although these patterns have no physical significance, like the arbitrary borders of the many countries on Earth, the stellar constellations provide a useful and historically significant way to partition the immense sweep of the night sky into identifiable pieces. Most of the constellations, particularly in the northern sky, have roots dating back to the earliest written records some 5,000 years ago.

Nine of the 88 constellations are named for birds:

- Apus, the bird of paradise
- Aquila, the eagle
- Columba, the dove
- Corvus, the crow
- Cygnus, the swan
- Grus, the crane
- Pavo, the peacock
- Phoenix, the phoenix
- Tucana, the toucan

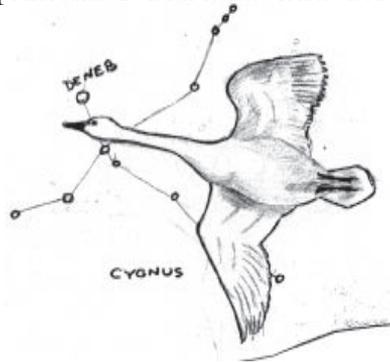


Of the nine only four are visible from Nova Scotia, and these are the ones you might expect to be visible from our part of the world: the eagle, dove, crow, and swan. The other five – the bird of paradise, crane, peacock, phoenix, and toucan – are mostly or completely hidden from us in the southern sky. To see all nine birds, we must travel almost to the equator.

Consider the four that can be seen from Nova Scotia. Columba is a small

constellation visible in late evening in mid-winter. It lies low in the southern portion of the sky, below Virgo. Cygnus and Aquila are large, prominent constellations in our summer and autumn evening skies. Both birds are in flight with spread wings. Both lie in the star-rich Milky Way, and each contains a first-magnitude star: Deneb marks the tail of the swan, and Altair marks the head of the eagle.

Of the five hidden birds, parts of two can be seen from Nova Scotia. The



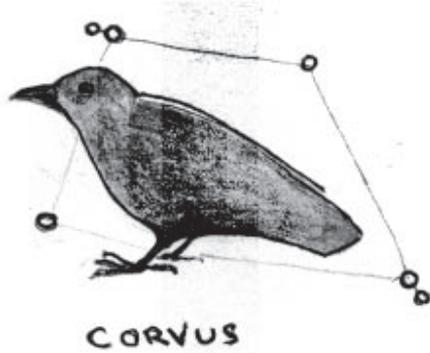
long neck of the crane extends above our southern horizon on late-summer evenings. We can easily see the star gamma-Gruis that marks the eye of the crane. The bright star Ankaa (alpha-Phoenicis) marks the wrist of the west wing of the phoenix, and this star peeks above our southern horizon for a short while on late-autumn evenings. The remaining three avian constellations, the bird of paradise, the peacock, and the toucan are deep in the southern sky, invisible from Nova Scotia.

All these celestial birds are composed of stars in our suburb of the Milky Way galaxy, within a few thousand light-years of the Solar System. Indeed, with the exception of the occasional rare supernova, no individual stars beyond our galaxy can be seen with the unaided eye.

Of the nine celestial birds, eight exist as real birds with feathers on planet Earth. The non-existent one is Phoenix, a mythical bird of ancient Egypt, a beautiful bird that lived in the Arabian desert for several centuries and then consumed itself in fire, rising renewed from its ashes to start another long life.

Experiments with real birds under artificial night skies of planetariums

have demonstrated that birds use star patterns to determine their bearings when migrating. It is humbling to realize that on spring and autumn nights, the thousands of migrating birds know the stars far better than most people sleeping in the darkness below.



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Valley Birds

by Angus MacLean

Along the coast from Annapolis Royal to Digby Feb 25, JWW found seven Common Loons but no Red-throated. On Mar 18 there were 15+ Commons (in total) at Port George and Margaretsville (JWW). However, BLF did manage a Red-throated at Scots Bay on Mar 18.

A Great Blue Heron was seen in Berwick Jan 14 (Ullmans fide JCT). One wonders how long it could survive with only small areas of streams open.

Tony Bezason spotted a Turkey Vulture in Wolfville about Jan 7, rare in Kings Co., and more so in winter.

By Mar 20, 1,000+ Canada Geese had congregated along the Habitant River in Canning. No Snow Geese have been noted with them so far. A flock of 75 Mallards lingered along the Cornwallis River in Coldbrook during February and early March (SMM, AAM). Hooded Mergansers had returned to the Black River (south of White Rock) by Mar 18 to join the Common Mergansers and Common Goldeneye that persisted through the winter there (BLF).

The resident pair of Bald Eagles quickly rebuilt their nest at Neary Pines, Port Williams, after heavy winds knocked it down (BLF). Many people reported Sharp-shinned Hawks around their feeders this winter, yet few were reported elsewhere. Although only two Rough-legged Hawks were found on the Eagle Count Feb 10, it seemed that greater numbers of this species were in the area this winter. As many as four were reported from a day's birding, and singles were reported from many locations. An American Kestrel was seen near Coldbrook on Mar 21, likely an early migrant (SMM). JWW watched a small Peregrine Falcon eating a small bird near the Canard River on Jan 28. This was near Canning, which has been home to at least one Peregrine for the past few winters.

The only report of Gray Partridge was from the Urbans in Avonport : 14 were seen on Jan 8 (fide JWW).

The Killdeer has yet to appear but is likely before April. A Greater Yellowlegs was flying along the Cornwallis River in Coldbrook Mar 18 (SMM). JWW reported 50 Purple Sandpipers at Port George, a favoured wintering area for this species, and RBS found 10 at Margaretsville Mar 23.

Iceland Gulls (3) were still at the New Minas Sewage Ponds Mar 1, and a gathering of 10+ was there Mar 13 (JWW). JET noted one at the Wolfville Ponds Mar 22.

Hordes of crows have been roosting south of Coldbrook for the past month or so, making Kentville residents much happier.



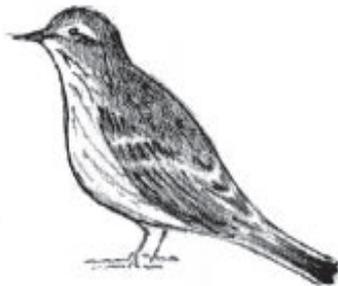
A second-hand report was received of an “all-white owl” flying across Highway 101 near Grand Pre about Jan 23 and 28, perhaps a Snowy, and if so the only one reported (fide RBS, JCT). However, Brian Starzomski found a partially (~90%) leucistic Red-tailed Hawk near Hortonville Feb 9, which may have been the same bird. A Great Horned Owl was calling at Starrs Point Mar 17 (BLF), and BLF’s resident Barred Owl pair had their first egg the same date. George Forsyth watched two Short-eared Owls hunting over the dykelands at Port Williams Jan 13. In January Saw-whet Owls began appearing in communities across the province; the first stayed all day by the Wolfville Library for many to see and some to photograph. However most found were dead or in bad shape. It appears that more Saw-whets winter in the province than was originally thought.

On a happier note, BLF had one tootling by Lumsden dam Mar 8, and JCT reported another calling near their home at Wolfville Ridge Mar 18.

There were 16 Common Murres at Port George on Mar 11 (PBF). However it was their close cousin, the Thick-billed, which made news in Nova Scotia and New Brunswick, with many being found storm-wrecked on land and others noted very close to shore. BLF had a few of these on Mar 11, both at Port George and Margaretsville, which were bobbing in the heavy swell a few feet from shore.

The pair of Northern Mockingbirds that have persisted near the curling rink in Kentville for a number of years were reported several times. Others were reported from Upper Canard (Tom Regan), the Kentville Research Station (RBS), and 3 from the Canning/Medford area (MAG).

American Pipits and Horned Larks were reported from Grand Pre in January but have not been reported since. There were 19 Horned Larks along Route 221 in Annapolis County (PBF), and it's likely others went unreported.



AMERICAN PIPIT

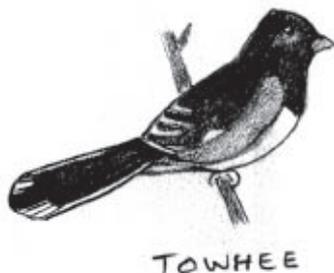
A Brown Creeper was singing at Hell's Gate, south of White Rock, on Feb 25 (BLF).

Large flocks of American Robins were around apple orchards into mid-January, but when their food supply was completely covered (or exhausted), the flocks split up and scattered widely. It's likely that a

number died, but no carcasses were reported. RBS noted 14 “lawn robins” at Middleton finding worms in the soggy ground; one of them he described would formerly have been termed a Newfoundland or “black-backed” robin, the black on the head extending down the nape to the black back. Just recently it has been determined that this plumage variation can be found in virtually any robin population.

Northern Shrikes became more noticeable after the lull in late fall. Mike McCall saw one at Halls Harbour Dec 31, enticed by the birds at his feeder. Gail and Jack Herbin watched one capture and eat a House Sparrow at their feeder in Wolfville. One spent parts of two weeks at our feeders in Coldbrook, but was not seen catching anything. Others were reported away from feeders.

On Jan 14 BLF had a Yellow-rumped Warbler in his backyard on Wolfville Ridge. The Pine Warbler recorded in Canning for the Wolfville Christmas Bird Count was not seen again.



An Eastern Towhee, which had been sporadically reported in Wolfville since early last fall, turned up for more lengthy views along Chestnut Avenue on Mar 10 (JCT et al.). Until late January we had 1–3 Chipping Sparrows at our feeders in Coldbrook. The Urbans reported 1–3 at their feeders in Avonport most of the winter (fide JWW). An odd-plumaged Junco at Wolfville Ridge Jan 28 to Feb 1 was determined to be a phaeistic-plumaged Dark-eyed Junco rather than an “Oregon” Junco, which it appeared to be. *Phaeistic* is associated with aberrant brown plumage and occurs when the melanin (pigment) particles are small; if large, the plumage would be black.

Blackbirds are slow in returning to the Valley this spring. JET noted one Red-wing singing near Wolfville on Mar 22, and BLF had a male Common Grackle at Wolfville Ridge on the same date. RBS noted two male Grackles at Waterville on the 23rd. Large flocks are now being seen in southern NB; but it will be some time before they reach us in any number.

Mike McCall at Halls Harbour heard a first Woodcock call of the year on the evening of Mar 21 from an area not far from his house.

A few Pine Grosbeaks were found south of White Rock Feb 28 (BLF). The single House Finch continued at Marion Fulton's feeder in Hantsport. White-winged Crossbill flocks were noted a few times during the winter, apparently just passing through, but on Mar 4 BLF saw 10+ at Greenfield (Kings County) in song.

Evening Grosbeaks were more common in Annapolis County than in Kings, but overall they were most uncommon this winter.

SLH reports a good variety of (expected) birds at her feeder in Tremont in January. No later reports from her, but birds at our feeder (Coldbrook) tailed off around the end of February.

On March 31 Mike McCall reported from Halls Harbour that a White-throated Sparrow, looking cold and somewhat aggrieved, sat nearly motionless on his sunflower feeder for upwards of 20 minutes before flying off when approached.

Observers:

AAM	Angus MacLean
BLF	Bernard Forsythe
JCT	Judy Tufts
JET	Jean Timpa
JWW	Jim Wolford
MAG	Merritt Gibson
PBG	Pat & Barb Giffin
SMM	Stella MacLean

The Way We Were

A 1909 publication, *Handy Farm Devices*, offers turn-of-the-century farmers advice and instruction on how to build almost everything needed on the farms of that day. It also, unhappily, reflects the commonly held view that nature is the enemy of the farmer. None expresses this idea more clearly than the following:

How to catch hawks and owls

“A friend captured a large owl and fastened him securely with a small chain to a stake in the middle of an open field. He set three posts five feet tall and four to five inches in diameter 20 to 30 yards from the owl, and on each post placed a small steel trap with a bunch of hay or grass tied to the post just under the trap, to hide it. At night, the owl called. Others came, and seeing nothing near, alighted in the trap on the post. During the day hawks came, and were caught in the same way. In two months, two owls and 17 hawks were caught. In some places a bounty is paid so there is a profit in two ways. The owl may be fed on the hawks caught and on rabbits or chickens that may die around the premises. The hardest part of this scheme is often the capture of the first owl, but if you are a good hunter* you will find a way.”

**Or make friends with Bernard Forsythe—Ed.*

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Annapolis Valley Weather – Winter 2000-01

by Larry Bogan

	Mean temperature (deg.C)	Snowfall (cm)	Precipitation (mm)	Bright sunshine (h)
December (40 yr. average)	-4.0 (-2.3)	86 (56)	97 (130)	84 (58)
January (40 yr. average)	-6.8 (-5.3)	122 (69)	74 (123)	78 (77)
February (40 yr. average)	-6.2 (-5.2)	62 (61)	52 (101)	82 (101)
Season (40 yr. average)	-5.6 (-4.2)	270 (186)	223 (354)	244 (236)

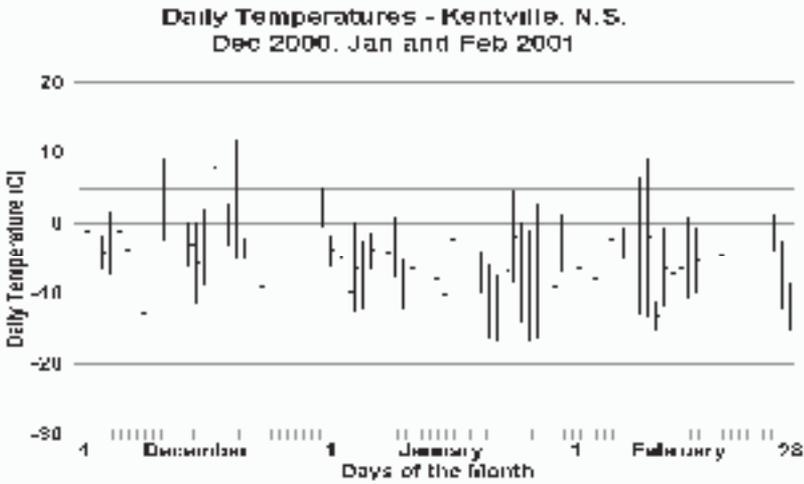
Kentville, NS, Food & Horticulture Research Centre

Note: The precipitation data above include both melted snow and rain. Rainfall is no longer recorded separately. December had some rainfall but there was very little in January and February.

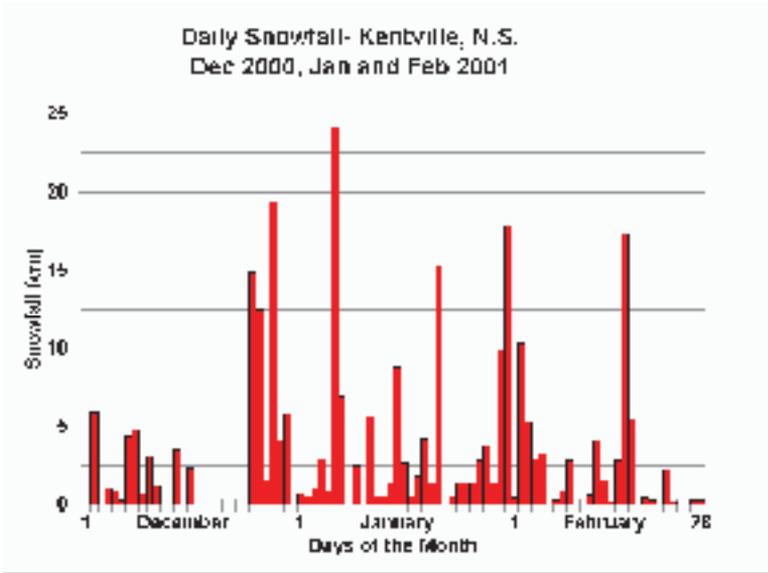
The main characteristics of our 2000-01 winter are the cold temperatures and snow cover. Most Nova Scotians were very tired of the winter at the time of this writing (mid March) with just cause. We have had a longer cold period than usual and have had significant continuous snow cover since mid December.

The accompanying graphs show the daily depth of snow cover and temperatures for the winter. They are for Kentville in the Annapolis Valley and differ only quantitatively from other areas of Nova Scotia.

The past winter has been on average nearly 1.5° C colder than the long-term norms. In typical winters there are warmer and colder months during a season, but this year all three months were at least 1° C colder than average. The graph of daily temperatures shows how they remained consistently low over the season.

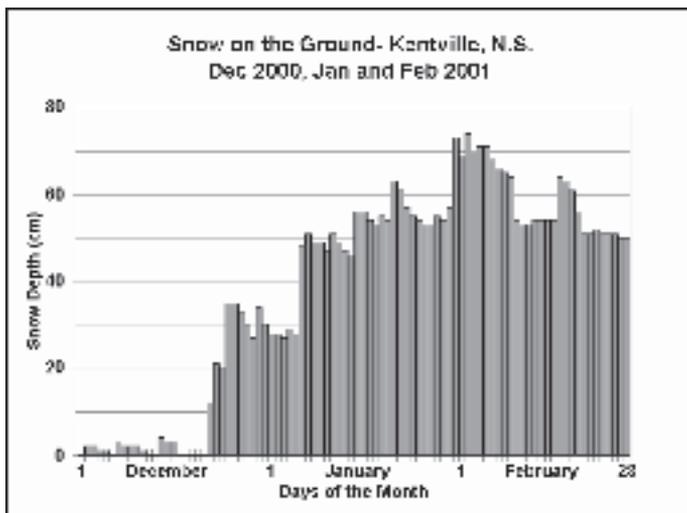


Kentville, NS. Agriculture Centre



Kentville, NS. Agriculture Centre

Snow cover was the most noticeable aspect of weather this winter. At the end of January it was 0.75 m deep. The snowfall data show why. We had average or above snowfall all three months of the winter (145% of normal), with January getting the most. The surprising comparison is with total precipitation. We actually had lower than normal precipitation (63% of normal), the reason being that we had little rain during the winter. In our maritime climate we normally have a freeze-thaw cycle that brings frequent rains. That did not happen this year because of the colder than normal season, and the result was more snow and snow cover. Would you believe we had a dry winter?



The precipitation throughout the winter was also evenly distributed during the periods. There was not a single week without precipitation. During most of the winter the jet stream was over Nova Scotia, directing storm after storm our way.

Sunshine makes us feel cheerier, and winter has less than the other seasons. This winter was normal in that regard. December was a bit sunnier, but February was cloudier than normal while January was just average. I usually rely on the longer days of February to start getting me ready for spring - that did not happen this year.

Hope springs eternal for the coming season.

What's in the Sky?

by Roy Bishop

New Moon: April 23, May 22, June 21, July 20, August 18

Full Moon: April 8, May 7, June 5, July 5, August 4

Summer begins on Thursday, June 21, at 4:38 AM (ADT)

The Changing Stars

The call of the Song Sparrow means that the bright stars of winter will soon disappear. The advancing evening daylight and the relentless drift of Earth in its orbit cause Orion and its companions to vanish into the rays of the Sun like the melting snow. Just as bird watchers this time of year experience a transition from eagles and Blue Jays to robins and warblers, sky watchers experience a transition from the bright stars and star clusters of winter to the dimmer stars and distant galaxies of spring.

Planets

The evening sky loses three bright planets this spring. By early April brilliant Venus will have moved from the evening sky into the dawn twilight. Jupiter and Saturn will be dropping into the western evening twilight, and both will vanish behind the Sun during May. However, we gain two other naked-eye evening planets this spring: Mercury and Mars.

During much of May, Mercury will be visible low in the west-northwest evening twilight. May 5–7: Mercury is to the right of Saturn (look about 9:15 PM). May 13–19: Mercury is near bright Jupiter, moving from a position on the right of Jupiter to above Jupiter during the week (look about 9:45 PM). On May 24 Mercury lies right of the slender crescent Moon (look about 9:45 PM and use binoculars).

Favorable times for observing Mars occur about every 26 months, and this spring is one of those times. Mars rises during April in the southeast late in the evening, and as the weeks pass it brightens and rises earlier in the evening. Mars is at opposition on June 13 and closest to Earth on June 21, the first day of summer. This year Mars is closer to Earth and brighter than it has been since 1988. During the evenings of June and July, Mars will be unmistakable – a bright, orange, star-like object low

in the southern night sky.

The best time to observe Mars with a telescope is from early May to mid August, when it will be between 15 and 21 angular seconds in diameter. It will be largest and brightest during June. With steady air, a good-quality astronomical telescope will reveal Mars's polar caps and dark areas on its cold, dry, windswept surface. Unfortunately for telescope users at our latitude, Mars will be low in the sky, and air turbulence will often interfere with good views of the planet.

Meteors

The annual Perseid meteor shower peaks on the night of August 11. If it is cloudy that night, the next night (August 12) should be nearly as good for seeing meteors. Choose a viewing site out in the country, well away from lights and with a clear view of the eastern half of the sky. A reclining lawn chair, warm coat and blanket, and thermos of hot chocolate are recommended. The Moon is at last quarter, so the sky will be dark until the Moon rises after midnight.

Tides

This summer the Moon is new within a day or two of when it passes perigee, the point in its orbit closest to Earth. This causes extra high perigeon spring tides in Minas Basin July 22–24, August 20–22, and September 17–20.

See the BNS Natural History Calendar for tide ranges and times of high tide. If you do not already have a copy of this unique Kings County publication, it is available at Herbin's in Wolfville or the Shur-Gain store in Port Williams, and from Harold Forsyth, BNS treasurer. The calendar includes an integrated tide table for Minas Basin, thirteen colour photographs taken in Nova Scotia, plus historical and natural history notes. As documents of the natural history of the Kings County area of Nova Scotia, BNS calendars are already classics.

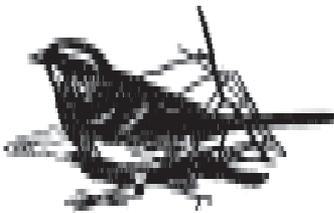
MAG

If you have read this far, you will likely be interested in the Minas Astronomy Group. MAG meets monthly (except July and August), usually on the second Saturday at seven (SSS) on the second floor of Huggins Science Hall at Acadia.

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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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Sources of local natural history (compiled by Blomidon Naturalists Society)

<u>Information</u>	<u>Source</u>	<u>Office</u>	<u>Home</u>
Rocks & Fossils	Geology Dept., Acadia University	542-2201	
Fish	NS Dept. of Natural Resources	679-6091	
Flora: General	Ruth Newell	585-1355	542-2095
Fungi	Darryl Grund	585-1252	542-9214
	Nancy Nickerson	679-5333	542-9332
Lichens	Karen Casselman	424-7370	633-2837
Seaweeds	Darryl Grund	585-1252	542-9214
Mosses & Ferns	John Pickwell		681-8281
Birds: General	Bernard Forsythe		542-2427
	Richard Stern	678-4742	678-1975
	Gordon & Judy Tufts		542-7800
	Jim Wolford	585-1684	542-7650
	Jean Timpa		542-5678
Hawks & Owls	Bernard Forsythe		542-2427
Falcons & Eagles	Peter Austin-Smith		542-2109
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Amphibians & Reptiles	Sherman Bleakney		542-3604
	Jim Wolford	585-1684	542-7650
Seashore & Marine Life	Sherman Bleakney		542-3604
	Jim Wolford	585-1684	542-7650
	Michael Brylinsky	585-1509	582-7954
Indian Prehistory & Archeology	Ellis Gertridge		542-2816
	James Legge		542-3530
Astronomy	Roy Bishop		542-3992
	Sherman Williams	542-3598	542-5104
	Larry Bogan		678-0446

