N.B. Naturalist
Le Naturaliste du N.-B.

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Deadlines for submission of articles, notes and illustrations are January 1, April 1, July 1 and October 1. Line drawings and cover illustrations should be in black ink.

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Dates limites pour toute observation destinée à la rubrique "Nature News": les 1er décembre, 1er mars, 1er juin et 1er septembre.

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Cover Illustration
Northern Shrike
Drawing by Jean-Raymond Gallien.

Illustration de la couverture
Pie-Grièche boréale,
Dessin par Jean-Raymond Gallien.

From the Editor

The production of this magazine demands lots of time and care but we love to work on it. Each issue is like a baby – newly born, a bit confused and definitely not yet grown up. I guess we are growing and maturing with it, and with each issue try to reach a little higher. But how do we know that we really succeed, if we don't hear from you. Just as a baby needs helping hands to develop, so does the *N. B. Naturalist / Le Naturaliste du N.-B.*

Once again we are urging you to let us know what you like or dislike, what else we should report on. Better still, why don't you turn into a reporter and write us about your discoveries and experiences. For example, Greta Clark wrote about "Grandpa Raven" (p. 133). Below is a portion of a letter Halton Dalzell wrote, telling us about his hand-tamed siskins. We hope the example of a 13-year-old will encourage you to reach for pen and paper too. Write us in either French or English.

Hope by the time this reaches you that you have got yourself dug out from under all that snow. Looking forward to spring, yours,

Mary

Letter from a Young Naturalist

"I have been having great success with my bird feeding program. I am getting mostly redpolls. The day I got back from Grand Manan early this month [January] there were at least 100 Pine Siskins there. Before we left there were only five or six. Now there are 200 redpolls, 50 Pine Siskins and five Goldfinches.

I have hand-tamed some Pine Siskins! Under the right conditions, they will fly right up to me. It's a thrilling experience to have a living creature eating from the palm of your hand. They are so close that you can see their breath!

The only interesting bird we have had is a White-winged Crossbill. It came that Saturday when we had that storm early this month. That's when I first had birds eating out of my hand.

I have been reading some good books this week. One is *Reflections of a Birdwatcher*, written by Ross Baker, from Truro. The other is *A Birdwatcher's Year in New Brunswick*. It's written by D. Kermode Parr. Unfortunately, I read that he died in 1971. Well I had better go to bed now. See you later.

Halton Dalzell

From Your President

I would like to thank all those who responded to our "Feedback" and observations supplements in the July issue. About a dozen replies were received detailing various interesting field observations, comments and questions. This kind of information is of enormous importance to the general naturalist movement here in New Brunswick and more specifically to the success of our organization. I hope those who replied, and others as well, will continue to regularly send us your nature observations and comments. We will periodically publish the results of "Feedback".

Good news arrived recently from the northeastern part of our province concerning one newly-formed nature club on the Acadian Peninsula and another in the Bathurst area. Bathurst will become the tenth nature-oriented club in the province (see back cover for list of other clubs). We are now looking towards Dalhousie-Campbellton and Edmundston. If anyone is interested in starting a nature club the federation would be willing to help provide speakers for your first few meetings as well as provide information about organizational skills. Please let us know if we can be of help.

The executive members of the federation have recently debated the question of how much energy we should devote to environmental concerns. The consensus seems to be that we should try to balance our time and energy between environmental concerns and those topics involving nature education and recreation. Our focus at this time should primarily be provincial instead of national because of the federation's limited resources and the important issues in our own province. I argue that if we do not defend our rights to an unpolluted environment and for protected areas for wildlife (both plants and animals), then we should not be angered when the places we enjoy visiting to observe and study nature are destroyed.

I would greatly appreciate your comments and suggestions concerning the federation's role in conservation and environmental problems.

Hal Hinds

Rare New Brunswick Plants

The Purple Gerardias

Hal Hinds

Some days you are just lucky! For me, one such day occurred last fall in early October. I was having breakfast with a friend at a restaurant near Fredericton. It was a sparkling clear autumn morning and I wanted to get out for a walk. Through the window of the restaurant I could look up into the hills on the north side of Fredericton and I realized I had not explored that area very thoroughly. So that is what we did.

We walked across the railroad tracks into an open area that had been dug up, probably for fill for the approach to the Princess Margaret Bridge. The soil in the area was reddish clay loam underlain with shale and poorly drained. In the uppermost reaches of those pits I noticed a small, oppositely-branched herbaceous plant growing in great profusion in open areas among willow and alders. It was in fruit (past flowering) and I knew at once it was a gerardia because of experience with them on Cape Cod, as well as here in New Brunswick. But I did not know which species of gerardia it was until I checked it more carefully back in my laboratory.

It turned out to be the Slender Gerardia (*Agalinus tenuifolia*), a plant not previously known in Atlantic Canada, the closest known population being in south-central Maine. My theory is that large earth-moving equipment brought in from Ontario for construction of the Princess Margaret Bridge may have carried seeds of the Slender Gerardia in caked-on mud, which fell off and started the colony.

Near the Slender Gerardia colony I also found several plants of the Nodding Ladies'-tresses (*Spiranthes cernua*) still in bloom, only my second view of this rare orchid in the province. So you can see why that was a special day for me!

In case you should find a colony of these special plants let us look at some of our other purple gerardias.

The gerardias are members of the figwort family which includes our common Butter-and-eggs and Turtlehead. They are small annuals which bloom in late summer or fall and are semi-parasitic. Their roots form connections with other

plants from which they get some of their nourishment. The pinkish-purple flowers occur in the axils of narrow leaves. The throat of the flowers is widely open unlike many members of their family which have a closed palate which bees must force open to get at the nectar within and thus perform pollination. The fruit is a dry capsule containing many seeds.

Our three species are very similar but the following key should help separate them:

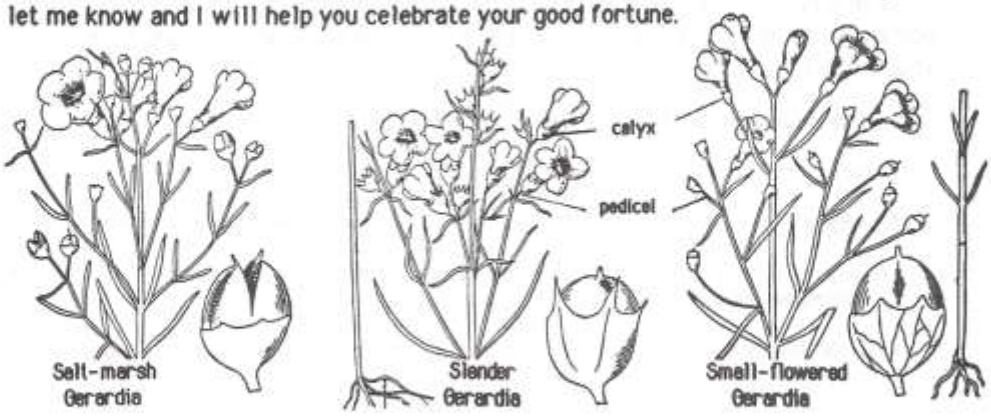
1. Choose either A or B
   A. Plants of salt-marshes; calyx-lobes blunt or rounded. Salt-marsh Gerardia
   B. Plants not of salt-marshes; calyx-lobes triangular, pointed. Go to 2

2. Choose either C or D
   C. Flower or fruit stalks (pedicels) shorter than calyx (see illus.) Small-flowered Gerardia
   D. Pedicels longer than calyx (1-2 cm) Slender Gerardia

In our province, the Salt-marsh Gerardia (*Agalinus maritima*) is only known from Bass River, Kent County, where it was found by Rev. James Fowler in 1865. The leaves are thick and fleshy.

The Slender (*A. tenuifolia*) and Small-flowered (*Agalinus purpurea* var. *parviflora*). Gerardias look superficially very similar except for the distinctions outlined above. The Small-flowered Gerardia has only been collected near the mouth of the Saint John River in Saint John (old record), on Ross Island, Grand Manan Archipelago, in 1980, and in Quarryville, Northumberland County, on the banks of the Southwest Miramichi River, in 1981. The latter two collections were made by me.

Please be on the lookout for these attractive little wildflowers in salt-marshes, open moist meadows and shores. And if you should find a colony let me know and I will help you celebrate your good fortune.



World Conservation Strategy

Mary Majka

For several years I have been privileged to be a member of the Environmental Council of New Brunswick. It is a small group of citizens, from various parts of the province, who have been called by our provincial government to serve as advisors to two ministers (Environment and Natural Resources). The council meets every two months to deal with a specific environmental topic. From time to time I plan to write about subjects that might be of interest to federation members, especially since I represent the naturalist's viewpoint on the council.

The Environmental Council's January meeting was a special one since we had invited representatives from Nova Scotia and Prince Edward Island to brief us on developments in their respective provinces.

What particularly interested us was the World Conservation Strategy (WCS), developed in 1980 by the International Union for the Conservation of Nature and Natural Resources, the United Nations Environment Programme, and the World Wildlife Fund. The strategy is a blueprint for actions to be taken internationally, nationally and regionally to conserve renewable resources so that their development for human use can be sustained in perpetuity. Its three objectives are:

- to maintain essential ecological processes and life-support systems on which human survival and development depend;
- to preserve genetic diversity; and
- to ensure the sustainable utilization of species and ecosystems.

It is a response to the conclusions of recent studies about conditions likely to occur in the year 2000 if we continue to manage the planet as we have to date. Those conclusions are that:

(a) tropical lowland forests will be largely gone in most areas;

(b) other forests in the tropics and subtropics will be greatly reduced;

(c) vegetation over vast areas will be severely denuded, leading to desertification on a massive scale;

(d) approximately one-third of the world's cropland will be gone due to erosion, poor irrigation, and replacement by cities, highways and industry.

(e) watersheds and water regimes will be seriously interrupted by the loss of forests and vegetation;

(f) loss of habitats and over-exploitation will result in extinction of 15-20% of living species of plants and animals;

(g) fishery yields will continue to decline and some fisheries will collapse; and

(h) loss of forests, increased industrialization and increasing desertification will affect the climate on a global basis.

Other more subtle modifications are also occurring:

- we continue to create situations that result in population explosions of one or more pests through deforestation and through interference with natural predators.

- pesticide resistance has increased markedly in the past few years;

- plants and animals known to be sources of valuable drugs are threatened through habitat destruction and over exploitation;

- we waste or destroy species that may be valuable sources of energy or nutrients;

- we fail to recognize the tools which nature has used to regulate herself and which in turn might allow us to regulate our wastes.

All that gives us food for thought and hopefully action, action which is already forthcoming from our two neighbouring provinces, which are developing provincial strategies.

"The aim of a Provincial Conservation Strategy (PCS) is to secure realistic and lasting development, to help people now and in the future to meet their material and cultural needs, and to improve the quality of their lives. A PCS goes to the heart of development problems by focussing on the wise management of living resources and the quality of the environment. Unless resources are used so that their benefits can be enjoyed just as much in the future as at present, and unless the environment remains healthy and productive, the capacity of a province to meet the needs of its people will progressively diminish," says David Munro, who has been working to promote the World Conservation Strategy in Canada.

Nancy Blair from Dalhousie University's School for Resource and Environmental Studies told us about efforts to develop a provincial conservation strategy in Nova Scotia. Because the provincial government did not make it their mandate to develop a provincial conservation strategy it was left to other groups to try to develop one. The School for Resource and Environmental Studies played a major part and enlisted groups such as the Environmental Control Council, Voluntary Planning Committee and Land Use Policy Committee. They have had difficulty because all funds had to be obtained from the private sector.

Bruce Smith spoke on P.E.I.'s experience. The new provincial government there supported the conservation strategy idea and got behind it with some staff and money. Environmental problems have been divided into subject areas or sectors: soil (e.g. erosion); water and wildlife (including surface water); pollution (including groundwater); coastal zone management (including aquaculture); and landscape (including tourism, parks). Each group set up their own contacts to gain public input and will prepare a working document on their sector. These reports will be used by a central committee to draft a conservation strategy, which will be presented to Policy Board, to Cabinet, and then to the public.

The Environmental Council hopes that our provincial government will endorse our suggestions to develop its own concept of a global conservation strategy for New Brunswick.

Events Calendar : Wildlife '87

The New Brunswick Federation of Naturalists will mark the "100th anniversary of wildlife conservation in Canada" with the following events and publications:

June 26-29 Mount Carleton Provincial Park Weekend
Explore the northern wilderness of our largest provincial park. Limited accommodation available at Bathurst Lake camps. Reserve through Wilma Miller, RR 1, Plaster Rock, N. B. E0J 1W0; tel. 356-2409.

August 8-9 Annual General Meeting Weekend
Wildlife '87, featuring Shepody Nat'l Wildlife Area, Fundy Nat'l Park and the shorebirds of Mary's Point, will be the theme of the federation's annual meeting in Albert County. An international shorebird reserve will be dedicated by Environment Canada.

N. B. Naturalist / Le Naturaliste du N.-B.
Volume 16, number 2 will be devoted to a wildlife conservation theme.

Nature Reserve. Jointly with the N. B. Nature Trust and the Nature Conservancy of Canada, the federation will designate a sensitive area, habitat for 17 species of orchids, as a protected site to mark Wildlife '87.

Educational Cards featuring the flora and fauna of our forests, a joint project of the N. B. Dept. of Natural Resources & Energy, the N. S. Dept. of Lands and Forests, and the federation will be launched for Grade 4 classes.

Grandpa Raven's Meal

Greta Clark

Over the course of twenty-six hours, the second week in April (1986), I was most fortunate to observe a raven's behavioural pattern that I had no idea existed.

I glanced out of our dining room window, making my usual bird-check of the property. Down at the foot of the vegetable garden plot was one of our resident ravens. We had previously named that particular raven "Grandpa". We have no idea if the bird is a male or a female, but Grandpa it is, because of its large size and often slow and deliberate movements.

There was nothing slow about Grandpa that morning. He had something on the ground that he was pecking at furiously. Soon feathers started flying, making me realize that he had a bird. The bird, I presume, may have flown into the telephone or hydro lines which were directly overhead. Soon Grandpa must have decided he had plucked enough feathers for he picked the carcass up and moved it a few feet along the edge of the garden. I was very curious as to what species the victim was. Judging from its size I thought perhaps it was a Hairy Woodpecker. At that point I rushed for binoculars. When I returned to the window Grandpa had dropped the bird and was walking around a rather large sod. My line of vision was partially blocked by the sod so I do not know whether he pushed the carcass under the sod or pulled the sod over it. Apparently he was not completely satisfied with the interment as he carried two or three small lumps of grass and earth to the site and completed the job. He then stood back, inspected his work, took wing and flew about his business.

I wanted a witness, so I waited until my husband, Ken, arrived home for lunch before going out to give the grave a closer look. Sure enough, there in some profusion were the feathers, and under the sod was a Kestrel. We carefully re-covered the body, wondering if Grandpa would return for his meal, but not really expecting him to.

We were in for a surprise. The following day, shortly after noon Lady Luck really smiled on us. I happened to look out the window just as Grandpa flew in, touched down about ten feet from his treasure mound, ambled over, reached under the sod, retrieved his lunch and flew off.

We hope he enjoyed his meal as much as we enjoyed watching his performance.

Nature News

Summer-Autumn, 1986

David Christie

A wet and somewhat cool summer followed New Brunswick's dry spring – "lovely weather for ducks", as the saying goes. So it was most appropriate that the major ornithological discoveries of the summer were of breeding ducks and other waterbirds.

However, the wet weather was a disaster for nesting Purple Martins and perhaps difficult for some other local birds, although information is lacking. Arctic regions experienced a particularly cold summer, which reportedly caused almost total nesting failure of the most northern breeding colonies of Snow Geese, and probably also had effects on nesting shorebirds.

Birds

The most newsworthy event of the summer was a first breeding record for Canada, the discovery by Don McAlpine, Jaakko Finne, Scott Makepeace, Scott Gilliland and Mark Phinney of a Glossy Ibis nest, containing three eggs, on Manawagonish Island, off Saint John West, June 14. The nearest Glossy Ibis breeding colony is in southwestern Maine but the discovery was not entirely unexpected, considering the groups of Glossy Ibises seen at nearby Saints Rest Marsh during the summer of 1985. Unfortunately, on a subsequent visit to the island the nest was found to have been robbed, probably by gulls or crows. Now the question is, "Will the ibises return in 1987?"

Manawagonish Island, site of a bustling colony of Herring and Great Black-backed Gulls, both of which will takes eggs or young, is a difficult place for other breeding species. Another discovery on Manawagonish Island June 14 was the first Gadwall nest ever found in New Brunswick. The nest contained 8 eggs,

which were later taken by a predator. So it was that when Don McAlpine found a second Gadwall nest on the island, he took the just hatched young, which were just beginning to hatch, to Cherrybrook Zoo, where six were successfully reared and the later released at Red Head Marsh. At least one female Gadwall successfully got her young to water. A brood of 7 small ducklings were seen in the creek at Saints Rest Marsh July 15 (Finne). There are a couple of previous records of broods of Gadwall, a western duck first found breeding in the Maritimes in 1973, and apparently now well-established in the Saint John area at least.

Although as many as 2000 Greater Scaup may be seen on the Saint John River in the Oak Point area during late April and a few individuals linger into summer at various locations in New Brunswick, the discovery of 21(!) nests of Greater Scaup at Grassy Island, near Oak Point, by Scott Makepeace, Mark Phinney and Don McAlpine, on June 25 was more surprising to me than the Glossy Ibis and Gadwall finds. To top off their visit to Grassy Island, those observers discovered a Wilson's Phalarope with three young, the first breeding record for the Maritime Provinces, although it was suspected of possibly breeding at the Tintamarre Nat'l Wildlife Area in the late 1970s.

Other highlights were an adult Sooty Tern, a new species for New Brunswick, full substantiation of Red-bellied Woodpecker in the province, a stray Black Skimmer from South America, and interesting records of Lesser Black-backed Gull. The Sooty Tern apparently spent much of the summer around the outer Bay of Fundy. It was seen first at Matinicus Rock, Maine, June 14-18 (Stephen Kress, *Guillemot* 15:55) and then at Machias Seal Island June 23-24 (Eric Munssk) and Aug. 6 (Hilaire and Rose-Aline Chiasson) and 14 (Earline and Ellis Gardner).

The Red-bellied Woodpecker, third reported in the province and the first to stay around to be photographed and seen by more than one observer, appeared at Doris and Shelton Appleby's feeder at Cambridge-Narrows Nov. 3. Joyce Thorne spread the word so that a few people were able to see the bird through Nov. 7, at the Applebys' or at Lillian and Hazen Pugsley's across the road. Unfortunately, despite attractive pine-oak woodland, two well-stocked bird feeders and a tree laden with attractive apples, the bird disappeared, disappointing the several birdwatchers who arrived at Cambridge on Saturday, the 8th! Later, we learned that the bird may have been seen much earlier, around the second week of October (Robinsons).

A Black Skimmer that visited Castalia, G.M., in August was discovered, apparently independently, by several observers: on the 11th by Don and Jan Zilstra, on the 12th Shirley Lehnert, on the 13th Peter Pearce, on the 14th Brian Dalzell. Numerous others, alerted by those people, had a chance to enjoy the skimmer gracefully feeding and resting in the marsh until it was last seen on the 18th.

Black Skimmers, while rare in New Brunswick, have turned up occasionally, mainly after fall hurricanes, but this bird was special. Its dark sooty underwings and tail marked it as a bird from northern South America rather than one of the much whiter birds of the United States coastline (DSC *et al.*).

It was unusual that an adult Lesser Black-backed Gull at Cape Tormentine June 21 was of the black-backed Scandinavian subspecies *fuscus* (Margaret Bain). Most North American records of that European gull are of dark gray-backed British birds, known as *graellsii*. Two Lesser Black-backs, one a year old and one two years old, were spotted at Mary's Point July 26 (DSC, Majkas *et al.*). The older and more conspicuous of those birds, seen almost daily through Sept. 3, and sporadically until Sept. 25 (v.o.), was well documented in photographs.

Reports of shearwaters in the Bay of Fundy began with one Sooty and 4 or 5 Greaters from the "Princess of Acadia", between Saint John and Digby, June 19 (David Smith). Around Grand Manan those species were accompanied by a Manx Shearwater near the Murr Ledges Aug. 20 (Peter Pearce *et al.*) and another in the Grand Manan Channel Aug. 24 (Jim Wilson *et al.*). October observations in the Grand Manan Basin area included 4 Sooties on the 3rd, 250 Greaters and 17 N. Fulmars on the 11th (Bev Agler, *Guillemot* 15:42). Wilson's Storm-Petrels, visitors from breeding grounds in the southern oceans, were quite conspicuous near Grand Manan in July and August (v.o.), and a few were still present in the Grand Manan Basin Oct. 11 (Agler).

Our local nesting storm-petrel is the Leach's, one individual of which would have tied the longevity record for that species, if it had returned to nest at Kent Island in 1986; another one, just a year younger, was at Kent so it will have a chance of tieing the record in 1987 (Chuck Huntington). If I remember correctly, the record is 32 years. Two Leach's, that seemed to be attempting to land on the highway during a very heavy rain at Anagance July 31 (Brian Dalzell) were most unusual. Storm-petrels carried inland by storms most often occur during October. A group of 5 or 6 Leach's (only one alive) were found on the beach at Kouchibouguac Nat'l Park during the fall (fide Harry Beach).

Miscou Island is probably the best place in New Brunswick, from which to see N. Gannets from shore. Many birds from the big nesting colony at Percé, Québec, visit the mouth of Chaleur Bay to feed. Sometimes hundreds may be seen from the lighthouse at the northern end of Miscou. Brian Dalzell reported 500+ moving SW along the shore there July 19 and Terrie Woodrow, a visitor from Ontario, estimated 350 (99% adults) flying past in very strong easterly winds Oct. 23, when he also saw 17 very late Sooty Shearwaters.

At the south end of Oromocto Lake, Harold Hatheway reports a gathering of 30 to 50 Common Loons, as well as 250 to 300 Common Mergansers, Oct. 2. The most Red-throated Loons reported were 21 seen on a Chignecto Naturalists' Club field trip to Cape Jourimain Nov. 16.

Double-crested Cormorants are certainly doing well. 500 were feeding in Bathurst Harbour June 28, 30 km from their colony at Pokeshaw Rock, where Brian Dalzell estimated at least 450 nests July 19. Jaakko Finne reports 1200 nests on Manawagonish Island June 14. Inland, a flock of 75 [non-breeding or post-breeding] were at Hartland Aug. 5 (Arthur Bryant). Two were still around the Cape Tormentine area Nov. 16 (CNC).

Four species of southern herons were seen at Grand Manan during early summer. A Great Egret and a Snowy Egret were reported sporadically at Castalia Marsh and on White Head Island during June, an adult Little Blue Heron at Castalia June 29 and July 4, and a Tricolored (Louisiana) Heron at Castalia in the first and last weeks of June (fide Frank Longstaff). In August, an adult Yellow-crowned Night-Heron was seen at Castalia August 21, 22 and 26 and Sept. 13 (Pearce *et al.*)

Canada Geese, most probably not nesting, were reported during June at Florenceville and nearby Charleston, and at Saint John and Kouchibouguac Nat'l Park (v.o.) Nine at Miscou Island Aug. 10 might represent a family raised there (Hilaire and Rose-Aline Chiasson). Reports of fall migrants included 200 at Waterville, near Hartland Oct. 14 (Jeanette Greene), "several hundred" there Nov. 11 (Frank Withers), and 605 in the Cape Jourimain area Nov. 16 (CNC). An white, adult Snow Goose was feeding in Castalia Marsh Oct. 12-13 (DSC & Majkas).

The Valley Naturalists report that the Mallard is now the most common summer duck in Carleton County. Although Mallards have increased elsewhere in the province, Black Ducks are generally still more numerous than their more western counterpart.

Rare was a male Eurasian Wigeon which spent May 27 through July 6 at Courtenay Bay, Saint John (Finne *et al.*). Other non-breeders during the summer included a male Harlequin Duck seen once in late June at Belleisle Creek (Jack Holiway), a male Oldsquaw at Miscou Island Aug. 2 (Marcel David), one White-winged and 15 Black Scoters at Grande Anse, near Dorchester, July 6 (IOC), 14 Black Scoters at Miscou Island July 19 (Dalzell), and 2 White-winged Scoters there Aug. 10 (Chiassons).

During the fall, a Canvasback was reported at Bayswater, beginning Oct. 1 (Withers), 25 Lesser Scaup at Port Elgin sewage lagoon Oct. 15 (Dalzell), a male

Barrow's Goldeneye at Fredericton Oct. 26 (Pearce), 15 Barrow's at Nictau in late October (Alex Fraser, fide Wilma Miller), 14 Hooded Mergansers at Beresford Oct. 19 (Pearce) and a male Oldsquaw and two Hoodeds at Nictau Lake Oct. 26 (Woodrow).

The province's Osprey population seems in good condition. Harold Hatheway reports two to four pairs on Oromocto Lake where there was only one a few years ago, Brian Dalzell had 16 in sight at once at Bathurst July 25, and Ford Alward reported 14 between Florenceville and Hartland Aug. 25. There were widespread reports of Bald Eagles, including a good number of birds not yet fully adult. The pair formerly nesting on Kent Island apparently switched their nest to Outer Wood Island (Huntington). Unusual was the observation of 4 adults and 6 immatures circling in the air near Campbellton Oct. 22 (Woodrow).

An adult male Cooper's Hawk, which killed itself at Saint John West about July 25 (now in the N. B. Museum collection), may be only the third specimen definitely taken in the province, since a couple of old specimens have proved to be misidentified immature Broad-winged Hawks. A female Cooper's was seen at Saint John Aug. 15 and another at Saints Rest Aug. 25 (Finne). Easier to identify but similarly rare in New Brunswick, the Red-shouldered Hawk was reported three times, between Bath and Bristol June 16 (Alward), at Oakland, near Florenceville, June 22 and Nov. 4 (Ansel and David Campbell), and at Memramcook Aug. 9 (Wilson).

An adult Golden Eagle seen by Ed Kettela at Mt. Marie, Northumberland County, July 22 is particularly interesting in light of Ed's summer 1985 observation of a Golden Eagle at Mt. Edward, 17 km to the west. It raises hopes that Golden Eagles may be breeding, or will soon breed, in that rugged part of northern New Brunswick. The amount of open country represented by large cutovers could be beneficial for those eagles. There were also reports of a Golden Eagle, in late August, along the Tobique River at Blue Mountain Bend, but the bird was apparently not seen by any experienced observers (fide Wilma Miller).

Merlins were widely reported during the summer. A nest and an adult feeding two recently fledged young at New River Beach Prov'l Park (David Clark) and a female feeding two fledglings at Janeville July 16 (Dalzell) apparently represent only the second and third confirmed breeding records for the province, although it is generally acknowledged to nest here regularly but rarely. A pair was again present in the Mary's Point– Harvey area (Rob Walker *et al.*) and single Merlins were reported during June and July at White Marsh Creek, near Florenceville (VN), Cap Lumière (DSC *et al.*), and Saint John (Finne).

The returning adult and newly released young Peregrine Falcons were seen often throughout the summer between Fundy Nat'l Park and Mary's Point, where it was exciting to watch them hunting shorebirds (v.o.). From mid-August through October Peregrines were also reported at Saint John (Finne) and Grand Manan (Clark *et al.*) In late September, one was seen over the Bay of Fundy between Saint John and Digby (Pearce). A dark immature Gyrfalcon was at Harvey, Albert Co., Nov.17 (DSC & Mary Majka).

A N. Bobwhite was visiting bird feeders at Fredericton during November (fide Pearce). Occasionally one or two bobwhite, which are raised and used for training hunting dogs, will escape and survive for awhile but they are unable to establish a viable wild population. In 1968 a pair raised young near St. Andrews.

Peter Barkhouse reports that Virginia Rails were more numerous than usual in the marshlands of southeastern New Brunswick and adjacent Nova Scotia during the summer. They were also reported in extensive marshes at Red Head (Finne), Musquash and Bloomfield, Kings County (Wilson). Both Virginia Rail and Sora were seen at a marshy pond in the UNB Forest, Fredericton (Hatheway) and a family of Soras at Lower St. Mary's offered good views to Fredericton area naturalists during late June (Pearce *et al.*). Common Moorhens (Gallinules) nested again in the Germantown section of Shepody N.W.A. in Albert County. Doug Whitman saw two young there July 24 or 25 while Rob Walker saw an adult, a fully grown immature and 3 downy young in the same area August 31.

Brian Dalzell, commenting that he was passed by seven ATV's in two hours, reports only 3 young birds among 11 Piping Plovers at Miscou Island July 19. One migrant was at Saints Rest Aug. 15 (Finne). In addition to reports from the traditional Northumberland Strait breeding grounds, a pair of Willets, apparently nested again at Castalia (v.o.) and one was seen at Maisonnette Sept. 1 (Chiassons). Upland Sandpipers were at their regular breeding area at Salisbury. A young bird, or perhaps two, showed up at Grand Manan, at Castalia Marsh Aug. 10 and near the Dark Harbour Harbour Road Aug. 18 (Brian & Halton Dalzell).

There were differences in the shorebird migration at Mary's Point that were possibly attributable to a poor, late breeding season in the north. The passage of large numbers of adult Semipalmated Sandpipers was more extended than usual (50,000 or more from July 26 through August 22) and the peak count was only 80,000 instead of over 100,000. However, 100,000 were seen at Saints Rest Aug. 4 (Finne). At Mary's Point, there were never more than 75 Sanderlings during October, versus the normal 300 to 500, when most young birds pass through. A remarkable 10,000 Semipalmated Plovers were reported at Saints Rest Aug. 24 (A. Robichaud, fide Finne), although Jaakko Finne's largest personal estimate was

2000 Aug. 19. On the 14th he reported a surprising 5000 Short-billed Dowitchers migrating there.

Miscou Island is one of the best places in the province for the long-legged shorebirds. On July 19, 21 Whimbrel, 16 Hudsonian Godwits (Dalzell), and 500 Lesser Yellowlegs (Chiassons) were reported there. Two Marbled Godwits were seen, one at Saints Rest Aug. 14 (Finne & Hollway) and one at Castalia Oct. 4 (Wilson *et al.*). Stilt Sandpipers were found Aug. 5 through Sept. 6 at Saints Rest, where 5, possibly 6, were present Aug.10 (Finne), and at Castalia Aug. 15-16 (Pearce *et al.*). A Buff-breasted Sandpiper was at Mary's Point Sept. 19 (DSC & R. Walker). In addition to the breeding record previously mentioned, a Wilson's Phalarope was seen at the Rampasture Marsh, Sackville, July 8 (Tony Erskine) and one to two were at Saints Rest Aug. 4-17 (Finne).

Close study of the small *Calidris* sandpipers at Mary's Point produced 7 records of Western Sandpiper between Aug. 29 and Oct. 10, with 2 adults and 3 juveniles on Oct. 2, and a serendipitous photograph of a probable juvenile Little Stint, an Eurasian sandpiper that had been reported only once in New Brunswick, Sept. 28 (DSC & Majkas). There were also 2 and 3 Baird's Sandpipers, respectively, on Oct. 2 and 5 (DSC *et al.*). It was a good fall for the last species, which was also seen at Saints Rest Aug. 23 and 26 (Finne), Miscou Island Sept. 20 (2 – Chiassons) and Oct. 24 (Woodrow), Courtenay Bay, Saint John, Oct. 10 (Wilson), and St. Andrews on the extremely late date of Nov. 22 (Clark).

Late shorebirds included a Black-bellied Plover and a Red Knot at Mary's Point Nov. 8 (DSC), a Common Snipe at Williamstown, near Centreville, Nov. 10 (Jean Carmichael), 2 Greater Yellowlegs on the Cape Jourimain trip Nov. 16 (CNC), White-rumped Sandpipers at St. Andrews Nov. 21 (Clark), 4 White-rumps and 11 Dunlin at Mary's Point Nov. 23 (DSC & Mary Majka), and a Killdeer at Fredericton Nov. 30 (Don Gibson, fide Pearce).

Rarer gulls were an adult Franklin's at Castalia July 3 (IOC), two Little Gulls at Head Harbour Passage Oct. 5 (Agler), and one Little and one Common Black-headed Gull at Miscou Point Oct. 23 (Woodrow). Other Black-headed Gulls were seen at Cap Lumière June 7 (DSC & Mary Majka) and Campobello Island Aug. 1 (Bonnie Bochan). Two lingering Iceland Gulls were reported during the summer, one at The Whistle, G.M., July 4 (IOC) and one at Petit Shippagan Aug. 17 (Chiassons). Three to 4 adult Laughing Gulls and 4 first summer Black-legged Kittiwakes hung around Machias Seal Island, G.M., during the summer (Eric Munssk *et al.*). An apparently injured Laughing Gull was at Bancroft Point, G.M., Aug. 30 (Halton Dalzell *et al.*).

A single Caspian Tern was seen at Red Head Aug. 1 (Finne), and two each at Mary's Point Sept. 4-7 (v.o.) and The Anchorage, G.M., Oct. 5 (Tingley).

A Dovekie, normally a winter visitor, was apparently seen at The Wolves in July (fide Pearce). One was found dead, but still warm, on Kellys Beach, Kouchibouguac Nat'l Park, in the last week of November (fide Beach). 14, apparently non-breeding, Common Murres were loafing on the rocks of Machias Seal Island during early summer (Munssk *et al.*).

A Northern Hawk-Owl was reported at Charleston, near Florenceville, July 13 (Vera DeWitt) and a Snowy Owl was on Miscou Island August 9-31 (Peter DeMarsh *et al.*). The first of a good winter influx of Snowies were an injured bird at Lindsay in the last week of October (*fide* Campbells), and individuals at Baie Verte and Cape Jourimain Nov. 16 (Tingley *et al.*) and Moncton Nov. 23 (Alma and Don White).

A rare summer Red-headed Woodpecker, an adult, was at Lower Millstream, near Apohaqui, June 27 and a more usual one at The Whistle, G.M., Oct. 4 (Cecil Johnston *et al.*). Frank Longstaff reports that at least six were on Grand Manan around the end of October. An immature was at New Horton, near Cape Enrage, Sept. 24 (Mary Majka). Although the first we had ever seen at Mary's Point, a male Three-toed Woodpecker (the barred-back species) behaved like he was on his home territory, calling agitatedly and diving on a Pileated Woodpecker that was searching for insects on a roadside telephone pole Nov. 7 (DSC & Mary Majka).

A Willow Flycatcher, found by Ron Weir at Bloomfield, Kings County, June 26 remained for about two weeks, long enough to be seen by a few other observers. Another was at The Swallowtail, G.M., Aug. 5 (Terry Mahoney & Longstaff). It is necessary to hear that species singing to be able to distinguish it from our common Alder Flycatcher. Undoubtedly, Western Kingbirds were seen elsewhere during the fall but the only reports, possibly all of the same bird, were at Harvey, Midway and New Horton, Albert County, between Sept. 26 and Oct. 10 (DSC *et al.*). Rarest flycatcher of the year was the Scissor-tailed, one of which was seen between Deep Cove and Seal Cove, G.M., Nov. 12-14 (Maude Hunter *et al.*) and another on Campobello Island Oct. 21 (Charles Duncan and Ilse Balodis).

There were numerous reports of Purple Martin colonies in early summer, including one in a dead tree at St. Stephen (*Guillemot* 15:36), but their nesting success was much reduced by the wet weather. When cleaning out their nest boxes in fall, observers found many more dead young and unhatched eggs than usual. At Hammond River, Quispamsis, there were 31 dead young at Jim Wilson's and 82 at Charlie Wilson's, at Cambridge-Narrows a minimum of 30 dead at Enid Inch's, 20 at

Marion Belyea's, over 40 at Frank Webb's, and 63 at Joyce and Niven Thorne's. Jim Wilson estimated the mortality of young at 53% in the Hammond River colonies. So it was not surprising that no large congregations of migrating martins were reported. The weather may have been responsible for reports of Barn Swallows nesting extending into September in Carleton County (VN). A fair-sized flock of about 1800 Tree and Barn Swallows was reported at Lower Brighton, near Hartland (Bryant). Probably storm-related were three late Barn Swallows at Oyster River, near Bartibog Bridge, Nov. 6 or 7 (Raymond Morrison, *fide* H. Walker).

Two Tufted Titmice reported at Florenceville June 22 (Vera DeWitt and Dora Clark) are the first in the province in a few years. A Blue-Gray Gnatcatcher was at Mary's Point Sept. 29 to Oct. 2 (DSC *et al.*).

As in spring, a pleasing number of E. Bluebirds were reported, at Williamstown, near Centreville (L. Green), Somerville (Diane Clark & Florence Britton), Hartland (Sheila Palmer), Bathurst (Dalzell), near Coles Island (Tingley), Nauwigewauk, near Hampton (4, Wilson), and in two atlas squares north of Edmundston (Pearce *et al.*). The last mentioned, breeding in remote cutovers prompted Peter to comment, "Perhaps [it] has found a new niche – free from European Starlings and House Sparrows!" In fall, a bluebird was seen at Smith Creek Sept. 10 (Harriet Folkins & Pauline Thibodeau), 6 at Oakland Sept. 19 (Campbells, who later learned that a neighbour had seen over a dozen in the area about that time) and 6 near St. Andrews Oct. 4 or 5 (Longstaff & Jill Malins).

Summer N. Mockingbirds were reported at Florenceville (Jeanette Greene), Woodstock (Alward), Oakland (Campbells), and Saint John (Weir), Brown Thrashers at Kouchibouguac Nat'l Park (Dave Shutler), Moose Mountain, near Holmesville (Alward), and Woodstock (2, Ken Taylor).

One of last winter's Bohemian Waxwings didn't make it back to western Canada. Hampered by an injured wing, it was seen at Miscou Island July 19 (Dalzell). The first of a good 1986-87 flight were seen Oct. 24 at Alma (2, R. Walker) and Oct. 30 at Cambridge (12, Inch). By Nov. 30, there were 200 at Minto (Lionel Girouard), 250 (accompanied by a late Cedar Waxwing) at Fredericton (Pearce) and 100-200 at Moncton (v.o.).

Our rare, summer shrike, the Loggerhead, was seen at Charleston June 11 (DeWitt) and at Sisson Ridge June 30 (juvenile, Erwin Landauer). First Northern Shrike of the winter was at Quispamsis Oct. 13 (Wilson).

A Yellow-throated Vireo, very rare in New Brunswick, was at Andover July 13 (Fred Tribe). Stray warblers reported were an Orange-crowned and 2 Pines at

White Head, G.M., Oct. 6 (Tingley *et al.*), a Prairie at Saint John West Aug. 30 (Wilson & Peter Wilshaw) and one at Mary's Point Sept. 29-30 (DSC *et al.*). Also, a Blue-winged Warbler was seen at Grand Manan about the end of September (Ken & Mary Edwards, *fide* Wilson).

During breeding bird atlas field work, Scarlet Tanagers were found in nine squares in Carleton County (VN) and 3 adult males each were reported in the Hammond River (Wilson) and Halcolm (Harry Walker) squares. Three male Indigo Buntings were singing in the Taymouth-Nashwaak Bridge area between June 23 and July 25 (Yvon Beaulieu). Fall reports included three at Doreen Rossiter's Alma feeder during October. Dickcissels reported were one to two at Mary's Point Sept. 29-Oct. 5 (Mary Majka *et al.*), one at White Head Oct. 6 (Wilson), and one at Newcastle Nov. 28 (Harry & Winnie Walker).

A Clay-colored Sparrow, singing in a field at Saint John West from June 22 till about July 5, was banded and photographed (Finne *et al.*) and one at White Head Oct. 6, was also photographed (Johnston *et al.*). Other rare sparrows at Grand Manan were a Lark Sparrow at North Head Oct. 5 and a Lark Sparrow and a Grasshopper Sparrow at White Head Oct. 6 (Wilson *et al.*)

The first provincial report of Smith's Longspur came from Maisonnette Oct. 7, where Hilaire and Rose-Aline Chiasson identified two in a flock of Lapland Longspurs. Smith's Longspur is mostly confined to the central portion of the continent but there have been a few reports on the Atlantic coast, including an October record in Nova Scotia. The first Snow Buntings were reported Oct. 16 at Mary's Point (Chris Majka) and Oct. 19 at Beresford (Pearce). Other winter arrivals included Am. Tree Sparrows at Mary's Point Oct.10 (DSC) and Oakland Oct. 11 (Campbells).

A male House Finch was seen at a Beresford feeder July 25 (Dalzell) and a pair, possibly with grown young, were seen at Sackville in August (Tony & Janet Erskine). There were widespread summer reports of fair numbers of White-winged Crossbills. Smaller numbers of Red Crossbills were reported at Crystal Lake, Charlotte County (Wilson), Grand Manan and Richibucto (Dalzell). The first of a good winter influx of Common Redpolls were seen Oct. 25 at Mount Carleton Provincial Park (Woodrow). One Hoary was spotted in a flock of Commons at Mary's Point Nov. 22 (Mike Majka).

Other Vertebrates

The White-tailed Deer in Fundy National Park have recently become much tamer than formerly, perhaps because some people have been feeding them. During the

fall, some of the deer were walking right up to cars and visitors at Park Headquarters and Point Wolfe.

Four species of large whales, Fin, Minke, Humpback and Right, were being seen around Grand Manan during the fall, as well of course as hundreds of Harbour Porpoises, but more exciting was the frequency with which Atlantic White-sided Dolphins were seen from August, when, for example, 50 were seen near the Murr Ledges Aug. 20 (Pearce et al.) through October, when 150 were seen near Grand Manan Oct. 11 (Maine Whale Watch). A few were even seen from the Grand Manan ferry.

Whale-like in size and feeding behaviour were two Basking Sharks reported in the Grand Manan Basin Oct. 3 (Agler). Those sharks, which can reach a length of 10-15 m, feed by straining plankton from the water with their gill rakers.

Flora

Alert readers of the last issue and of the *Flora of New Brunswick* may have noticed that Hal Hinds included the "rare Nodding Ladies'-tresses" in his article, whereas in the *Flora* he called it "doubtfully a member of our flora." Since publication of the *Flora*, Hal had learned of a collection near Grand Harbour and had found it himself near Flume Ridge, Charlotte Co., and at Fredericton. He also found the rare Adder's-tongue Fern *Ophioglossum vulgatum* in the Flume Ridge area.

Abbreviations

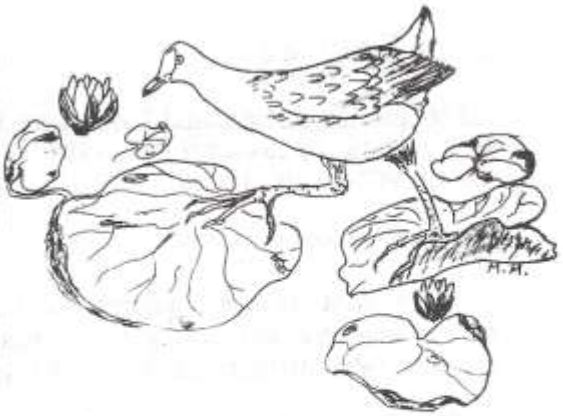
CNC – Chignecto Naturalists' Club
DSC – David Christie
IOC – Internat'l Ornithological Congress trip
VN – Valley Naturalists

Timmy - A Distinguished Foreign Visitor

Mary Majka

Between the pink petunias and crimson red geraniums, just below the redwood tree and the blue lily of the Nile, lives Timmy. He has all the hues and colors of the flowers that surround him, plus the yellow tip of his beak, which matches the gerbera blooming across the greenhouse. Timmy relishes the sun that beams through the big windows, especially after his noon hour bath. He likes the warm water in the tub and, like a kid splashes vigorously to get dripping wet. Then, his cage washed and freshly lined with newspaper, he feels "Ahh, wonderful!", clean and refreshed. He flaps his wings and carefully preens each feather.

Outside, the icicles are starting to drip on the southern side of the greenhouse, despite the -14° temperature and "brisk to strong winds" the radio announces. The radio now plays Mozart and Timmy, dry and all fluffed up, closes his eyes in delight and settles for a rest. One of his legs has a problem, but Nelson, the vet, has made a house call and prescribed antibiotics.



Timmy should never experience frost. When the temperature drops, he and his brethren take off for such places as Panama and South America. But sometimes a storm with 100 km/h winds catches them in migration and deposits them in such unlikely places as Maine, New Brunswick, or Newfoundland. Under such circumstances there is only one thing to do, spend the winter in a greenhouse and hope that the frost-bitten leg gets better and that not all of those long toes (so essential in walking on lily pads) will get gangrenous.

Mary, the Purple Gallinule's "mother", is just about to add some medicine to a piece of ground meat and feed Timmy. She also gives him hard-boiled eggs and spends a lot of time talking to him. Sometimes when she comes into the greenhouse he starts calling her, even before she enters the door. He knows her voice and also David's. David takes off the quilt that covers Timmy's cage for the night and tells him to get his foot better so he can be taken to the aviary in Vancouver's Stanley Park.

The aviary is a gallinule paradise under glass, a large structure full of exotic trees and shrubs with a stream running through and a lot of colorful birds. It is the same place where Mary and David took a pair of Purple Gallinules – Tina and Jamie – in 1979. Alas, Tina lost the ends of all her toes. They had frozen when she was stranded in snow in front of the Alma post office. Jamie was luckier. He got picked up soon after he had landed in front of a garage near Hampton. Timmy wouldn't want to have been in Jamie's shoes (not that a Purple Gallinule needs shoes) because poor Jamie was sent by Cecil Johnston to the Bahamas, but customs officials didn't want him there, so he was put on the next flight back to Canada. After that, Mary looked after him until it was time to go to Vancouver. There Jamie lived for five years, a reasonable age for gallinules.

Mary, of course, is a bit worried about Timmy's future, but then she is such a mother hen!

Book Reviews

A Field Guide to Personal Computers for Bird Watchers and Other Naturalists. By Edward M. Mair, 1985. Prentice-Hall Inc., Englewood Cliffs, N. J. 07632. 207 pp., illustrated. $9.95 U.S.

Reviewed by David S. Christie

There must be many hundreds of books that provide an introduction to micro-computers, and this one seems reasonably complete, touching all the usual subjects. What distinguishes this book is that it is directed to naturalists.

Computer books can be pretty dry reading but Ed Mair, a computer systems consultant, who is also an avid birdwatcher and naturalist, introduces a human touch through the computer adventures of Harold and Sally Birdman and, wherever possible, employs natural history analogies and examples.

Thus, the chapter on "evolution and taxonomy" compares hummingbirds and personal computers, both being "small with incredible powers". The taxonomy of the Yellow Warbler and of the Apple IIe [2-E] are compared, and it is noted that the evolution of computers has taken place at such a rate "that we cannot avoid putting the "r" in (r)evolution." As a result, the section on field identification does not include some of the most talked about micro-computers of 1986-87.

We follow the Birdmans' deliberations as they search for the best computer for their use without stretching the family budget too thinly. Most of the examples in "using the personal computer", relate to their birdwatching hobby. So, we see a "mailmerge" fund-raising letter to members of their local club, a backyard checklist form, a life list database, a spreadsheet analysis of their planned computer purchase, charts of hawk migration data, a bird club bulletin board, etc.

For the naturalist who wants a general introduction to computers this is a reasonably good book. After all, where else could you find among the illustrations of computer hardware, 25 pictures of birds?

Book Reviews, Computers and *the N. B. Naturalist*

We generally want to confine our book review section to natural history titles relevant to New Brunswick or probably of interest to many members. The preceding book doesn't qualify well, and thus was omitted in the last two issues, but is included now in recognition of the very capable Apple Macintosh computer with which this magazine has been prepared for two years. We use a simple word processing program, MacWrite, and Apple's dot matrix printer to prepare copy for offset reproduction by Neill Printing Ltd. We may soon switch to a laser printer, which will provide a much higher quality typeface. DSC

Christmas Bird Counts

1986-87

David Christie

There has seldom been such good weather for Christmas Counting in New Brunswick as in 1986-87. Only Florenceville and Hammond River-Hampton had to contend with adverse weather. A record 35 counts were conducted, including brand-new ones at Tracadie and Minto and reincarnation of the Bathurst and Caraquet counts. Having four counts in the north-east gives a much better picture of the early winter birdlife in that part of the province than has been previously possible.

With more counts and good weather, it was natural that the observer effort would establish new records, thus 388 field observers spent over 1100 hours and travelled over 9400 km (on foot, by car, ferry, small boat, snowmobile, and bicycle [Now, that's good weather!]). There were slightly fewer reports, 298, than recently from stay-at-home participants who observe only at their bird feeders. Probably some of them went afield to enjoy the weather.

The big effort combined with greater than usual populations of some common species pushed the total number of birds to over 103,000, exceeding the previous year's record of 92,000. However, the variety of species found was just about average, 111, plus ten additional species during count period. The late November and early December weather had been cold enough to kill off or push south many of the less hardy birds. Only one species had not previously been seen on count day in New Brunswick – American Bittern at Sackville.

Several waterbirds, Common Loon, Horned Grebe, Great Cormorant, Black Duck, Greater Scaup, Oldsquaw, White-winged Scoter, Common Goldeneye, and Red-breasted Merganser, were considerably more common than usual. On the other hand, Canada Geese had practically all gone south by count period, and the numbers of Brant, Mallard, and Black and Surf Scoters were below average.

Herring, Iceland, and particularly Great Black-backed Gulls were found in above average numbers, whereas Ring-billed Gull and Black-legged Kittiwake were in relatively low numbers. Very few Thick-billed Murres and no Dovekies were seen but the other alcids were more common than usual. An above average number of Purple Sandpipers were seen.

Among raptors, Bald Eagle, Red-tailed and Rough-legged Hawks, and Snowy Owl (during CBC period in 8 areas) were found in above average numbers. Sharp-shinned Hawk, Goshawk, and Great Horned Owl were less numerous than usual. One Gyrfalcon was spotted.

Ring-necked Pheasant and Mourning Dove, which benefit from winters without heavy snowfalls, continued in high numbers, and pheasants were reported in more areas than recently. Four Spruce Grouse on three counts is a greater frequency than usual. Ruffed Grouse have dropped to below average levels, however.

Pileated Woodpeckers continue to increase. More common than ever before, they were recorded on more than half the counts. Hairy Woodpeckers were found in above average numbers. Six Three-toed Woodpeckers represent a good year for that species.

A phenomenal 8130 Snow Buntings, 78% of the provincial total, were found at Sackville. Elsewhere, their numbers were about average. Very few Horned Larks and Lapland Longspurs were seen. Among native sparrows, only the Tree Sparrow was found in above average numbers, while there were fewer Song and White-throated Sparrows than normally. Red-winged Blackbird, Cowbird, and especially Grackle were scarcer than usual.

Gray Jays, more numerous than since 1978, were up to about their average level for the 1965-75 period. Blue Jays were in high numbers (only in 1972 have they been more common) but Crows low. Black-capped Chickadees were very numerous (similar to 1974) but Boreals were at their lowest level ever. White-breasted Nuthatch and Golden-crowned Kinglet numbers were below average.

It was the largest Bohemian Waxwing flight yet recorded by our CBCs. Mockingbird and Northern Shrike numbers were above average but there were few Robins. Not as many Starlings were found as usual and House Sparrow populations were low, including a mere 15 at Saint John, the lowest count there in 30 years!

Three finches were very prominent. Evening Grosbeak and Pine Siskin were more common than in any previous CBC, especially at Fredericton. The Common Redpoll flight, also very high, was only about half the size of that in 1968. Rounding out a very good season for finches were somewhat above average numbers of Purple Finches and Goldfinches.

A surprising 10 Great Blue Herons were found (most previously, 4 in 1982). Other lingerers reported included a Pintail, 3 Hooded Mergansers, a Harrier, a Kestrel, 2 Merlins, a Sanderling, 2 Belted Kingfishers, a Flicker, a Winter Wren, a

Ruby-crowned Kinglet, a Hermit Thrush, a Rufous-sided Towhee, a Chipping Sparrow, 3 Savannah Sparrows, 2 Swamp Sparrows, a White-crowned Sparrow, and a Northern Oriole.

Abbreviations and Footnotes to the Table

- * high count a provincial record
- ** first time on N. B. counts
- ' recorded during count period (Dec. 18-Jan. 4)
- a no details submitted or details not fully convincing
- b by boat
- c by bicycle
- d 4 h, 42.5 km by boat; 1 h, 10 km by snowmobile
- e 1 Mallard x Black Duck hybrid, 9 finch sp.
- f 11 duck sp.
- g 35 finch sp., 1 passerine sp.
- h 1 large brown owl sp.
- i 12 scoter sp., 5 hawks sp., 1 gull sp., 1 songbird sp.
- j 219 birds sp.
- k 1 woodpecker sp., 2 crossbill sp., 131 finch sp.
- m 2 gull sp., 1 woodpecker sp., 1 nuthatch sp., 92 finch sp., 11 bird sp.
- n 1 woodpecker sp., 5 sparrow sp., 2 crossbill sp., 15 finch sp.
- p 2 woodpecker sp., 56 finch sp.
- q 1 owl sp. (Saw-whet?)
- r 12 scoter sp.
- s 1 Saw-whet found freshly dead Dec. 27
- t 2 crossbill sp.

1986-87 CHRISTMAS BIRD COUNTS (Dec. 18, 1986 – Jan. 4, 1987)

Grand Manan Channel (GMC) 11th Year
Dec. 29; 0950-1120. Mostly sunny; temp. 0°C; wind ESE, 5-10 km/h. Seas calm.
Brian Dalzell (compiler).

Grand Manan (GM) 16th Year
Dec. 12; 0730-1715. Mostly cloudy; temp. -5° to +1°C; wind ESE, 5-15 km/h. Ground bare; fresh water mostly frozen.
Vernon Bagley, Brian Dalzell (compiler), Helton Dalzell, Virginia Greene, Lincoln Harvey, Gloria Hobbs, Audrey Ingalls, Verna MacKenzie, Roger & Elaine Maker, Geraldine Nelson, Ellis & Nancy Small, Alma Tatton.

Eastport-Campobello (E-C) 20th Year
Dec. 26; 0730-1600 EST. Clear to partly cloudy; temp. -2° to +2°C; calm. Ground bare; fresh water frozen, salt open.
Beverly Agler, Sid Bahrt, Edna Bunting, Howard Bunting, Fran Collier, Thurlo Collier, Dick Cleary, Kevin Cleary, Charles Duncan, Norm Famous, Ellen Johnson, Kyle Jones, Zack Klyver, Laurie Larsen, Hubert Ross, Nellie Ross, Fred Stocking, Marion Stocking, William Townsend (compiler).

St. Andrews (StA) 26th Year
Dec. 20; 0800-1700. Clear; temp. -8° to -5°C; wind SE, 0-15 km/h. 5-10 cm snow cover; fresh water frozen.
Steve Adamowicz, Anne Bardou, Mrs. Hollis Bartlett, David Clark (compiler), Mike Dadswell, Jim Gordon, Mrs. Donald Johnson, Mrs. Wilfred Langmaid, Daryl Linton, Francis & Don McLeese, Lonny Ryall, Millie Scott, Jan Stewart, Maj. David Walker, Dick Wilder, Walter Williamson, Wil and Vladimir Zitko.

Pennfield (Pen) 24th Year.
Dec. 12; 0700-1600. Sunny; temp. -8°C; wind N, 10-15 km/h. Ground bare.
Lena Morehouse (compiler).

1998-99 CBCs	BHC	Bri	E-C	StA	Pea	Lau	SJ	PAP	R-A	Sca	Hbo	CT	KNP	Hor	Tra	Lam	Car	Bel	Sbu	Hbo	C-W	Jam	Hlo	Flo	Mac	Str	Wak	Ard	Fla	B-ul	P-A	PR	Nic	PSC	SDJ	TOTAL
Red-thr Loon		3					3	1	3																											8
Common Loon		33	15	10	3	20	9																													79
Horned Grebe		54	14	38	3	31																														109
Red-neck Grebe	*	121	111	16		12																														260
Grt Cormorant		183	164																																	347
Americ Bittern **										1																										1
Great Bl Heron		3			*	1	1	1		3		1				1			*																	10
Snow Goose																																				*
Brant		53																										*								
Canada Goose	*		7				*				*	15	*											*												50
Green-wing Teal							*																													22
Am Black Duck *		935	1922	122	43	50	364	32	267	8	216																									*
Mallard		3	7				6	1	1		36					2			5				*	2	28				*		2				3887
Northern Pintail									1							*							*		5										98
Greater Scaup		95	5	104	4		32																													1
Lesser Scaup							*																													241
Common Eider		281	2	1090	30	1		1				11																								*
Harlequin Duck #					*	5										16	6	1																		1335
Oldsquaw *	*	317	174	214	94	37						1184	22			418	492	370	21																		6
Black Scoter		6	4																																		3640
Surf Scoter		15	13	1		1						1sp																									32
wh-wing Scoter		125	100	107	4																																34
Com Goldeneye		623	124	69	17	47	231	26	18	1		260				6	28		14					102	1	1			38		2		3			536
Barr Goldeneye		2					1																													1554
Bufflehead		47	126	154	8	51	46		1																											3
Hood Merganser							2				1																									429
Com Merganser			4		*	9	63		2	8	26	44							5					98	23						3		11			5
Red-br Merganser		219	102	24	3	17	46					265				2	34	3	3																	764
Bald Eagle		11	11	2	*	*	1	1	1		2										*	*	2	3	3				1		*					37
Northn Harrier					*				*	1																										1
Sharp-Shr Hawk		3								1	2																									1
Northn Goshawk									*	2	1	1					*					1		1				*		1					7
Red-tailed Hawk		1	2			*	*			4		7									3			1			*	1	*		1					17
Rough-leg Hawk		5	1		1		1			24	1	13										1	6					*								55
Americ Kestrel							1																													1
Merlin		1	1				*				*										*									*					2
Gyrfalcon		1	1																																	1
Ruffed Grouse		2								156	88								11					*		1	33	1	8	1						352
Spruce Grouse										3									1		1															4
Ruffed Grouse			1	6	*		3	8	*	3	4	6		5		3	1	1	2	1	8	1	1	8	4	1	3		2	1	*	2	2	*	*	81
Red Knot									*																											*
Sanderling							1																													1
Purple Sandpiper		215		126	*	4	51		36																											435
Common Snipe																			1																	1
Lam Slt-ted Gull							*																													*
Bonaparte's Gull	*	2	67				1																													70
Ring-billed Gull			11	1			10		1	6		3						13																		40
Herring Gull	14	2855	5646	942	1138	210	1139	3	121	304	2617	90	67	219	15	8	15	57	84	43				398	38											15485
Iceland Gull	4	13	1			*	109		53		126	84		1	9	56	200			*				*												840
Glaucous Gull	1	2	1		27		1	1			2			10	*	14	46							*												107
Grt Bk-bk Gull *	2	340	282	41	64	44	430		18	113	2763	48	24	179	122	217	172	162	18	67				400	78											5839
Sl-leg Kittiwake	32	890	390				1																													1303
Common Tern *	*	12	2			3										1																				18
Thick-bl Murre		1	11					1		*																										13
Razorbill *	25	750	58																																	883
Black Guillemot *		42	35		7	5										268	*																			356
Atlantic Puffin	2																																			2
Black Dove			178	61	4		273		12	184	807	74	5	65	165	6	76	35	238	131	10		58	485	181		122	96	392	12	40	17			3866
Rock Dove		28	1	78	21		127		4	8	34		2	23	7		1		61	18	1	30		209	12		13	20	78	2	4					820
Grt Horned Owl																					2	*														2
Snowy Owl		*					1			2	*	2										*	*					*								5
Barred Owl				*		1		*	*	0sp		2	*							*	1			1					*			*			*	5
Long-eared Owl		*																																		
N Saw-whet Owl		*									(*)																			[sp]						*
Belted Kingfisher						1																		*							1					2
Downy Woodpkr		4		3	2	1	15	7	3	8	14	6	2	8	1		5	4	1	8	6	6	2	46	12		19	6	24	3	4	19	18		1	391
Hairy Woodpkr		3	4	6	1		10	7	7	2	6	4	1	10	3	4	3	6	9	8	10	12	5	34	12	7	21	10	33	5	7	13	8	3	*	387
3-toed Woodpkr												1					1							1							1	*		1	1	6
Bk-bk Woodpkr					*			1	1	1	1	1		2		1						2		1		1							2	3	6	36
Northn Flicker												1																								
Pileated Wpkr				1	1	2		2	1	3			*	2				*	*	1	*	4	1	8	7	1	1	1	1	1	*	2	2	3	2	47

1986-87 CBC's	BHC	BH	E-C	StA	Pen	Lap	SJ	FMP	B-n	Sck	Pla	CT	KNP	Thr	Tra	Lam	Car
Horned Lark							2			3							
Gray Jay		*	8		*	*	3	10	14	6	8	6	11	12			7
Blue Jay		14	8	54	2	1	61	33	77	130	145	152	30	134	46	38	49
American Crow		126	154	69	147	22	154	14	42	240	51	48	2	17	46	96	51
Common Raven		173	21	7	11	21	59	24	60	131	52	64	12	70	19	31	52
Blk-cap Chickad *		147	80	75	10	32	342	84	66	231	227	152	44	107	20	16	50
Boreal Chickadee		6	7	5	*		6	7	17	23	1	7			8	11	16
Red-br Nuthatch		2	4	1	*	1	8	7	2		1			5			2
Wh-br Nuthatch							*	1			2						
Brown Creeper		1			*			2	1	2	1			3			
Winter Wren																	
Gold-cr Kinglet		15	6	1		2	4	13	11	24	19	39	3		2	1	6
Ruby-cr Kinglet										*		1					
Hermit Thrush							*										
American Robin		4			*	*	3	1	*	1	5						
No Mockingbird		1					4				5			*			
Bohem Waxwing *				137			74		16		347	15		1	5		
Cedar Waxwing													7				
Northern Shrike		2		2	*	1	2	2	2	6	4	8				1	
Europn Starling		880	599	130	3	214	2881	16	58	881	1954	373	1	662	56	88	126
Yel-rp Warbler												6					
Pine Warbler																	
Northn Cardinal		3					1										
Ruf-sid Towhee																	
A Tree Sparrow		37	7	55	4	32	48	35	17	98	82	25	18	11	3		1
Chipping Sparrw				1													
Savannah Sparr				1			1										
Fox Sparrow		2											1				
Song Sparrow		2	2	3	*		2	3	*	2	2	2		1		1	*
Swamp Sparrow											1	1					
Wh-thr Sparrow		1	1	2			9	1		*	*			1		*	
Wh-crn Sparrow										1							
Dk-eyed Junco		3	4	9		*	68	18	10	14	26	3		5			
Lapld Longspur			1		*												
Snow Bunting *				7	*	5			*	8130	131	51	32	*	115	610	272
Red-w Blackbird		3					1	*		1							
Eas Meadowlark		*															
Rusty Blackbird				1						1							
Common Grackle		10		1	1		1	*	1	8	1	1		*	1		
Brn-hd Cowbird		33				4	11			48		17					1
Northern Oriole							1										
Pine Grosbeak			4	2			24	4	*	45	24	12	5	35	8	38	11
Purple Finch				*	1		2				18		37				*
Red Crossbill																	
Wh-w Crossbill								2	4							1	11
Common Redpoll *		53	60	15	157	*	165	90	120	451	1024	360	10	666	139	384	288
Pine Siskin *	4	145	4	36		*	100	6	17	14	45	22	5				
Amer Goldfinch		58	12	69			31		2	*	33	2		4			
Evening Grosbk *		84	7	283	6	*	322	53	23	398	1040	10	6	277	30	4	27
House Sparrow		130	34	39			15	16	62	592	771	111	30	204	132	12	77
Unidentified							10	11	36	1		19					
TOTAL BIRDS	94	9975	10413	4487	1771	889	8962	859	1206	12012	12571	3620	377	2899	1378	2413	1960
TOTAL SPECIES	8	45	58	48	38	32	61	38	41	50	47	49	24	29	26	31	30
Add. Spp. in Period	5	5		2	18/19	8	9	4	8	4	4+1		3	3	1	2	4
Hrs on foot		6.75	2	10	5	1	22.5	23	16.5	35	28.75	41.5	19	13	2	5.65	2.75
Hrs by car		26.3	39	6	5	7	39.8	18	13	36	42.75	18.5	7	23	18	19.5	29.8
Hrs otherwise	1.5	6.5	2				3	5									
TOTAL HOURS	1.5	41.5	43	16	10	8	65.3	46	29.5	61	72.5	60	26	36	20	25.5	32.5
Km on foot		6	6	12	4	1	39.5	42	18	67	39	88	31	29	5	10.7	11
Km by car		285	339.2	130	150	143	479	300	300	378	572	290	190	440	310	270	312
Km otherwise	30	27	30				11	53									
TOTAL KM	30	300	379.2	142	154	144	530	394	318	446	611	378	201	469	315	281	323
No. of observers	1	10	19	5	6	4	27	18	8	15	22	11	10	14	13	9	10
No. of parties	1	6	8	4	2	1	12	8-9	5	6-12	9-12	5-10	8	6	3	3	4
Feeder reports		4		12			15	5	3	1	13		2	22	5	1	1

1986-87 CBC's	Bel	Sea	Hfx	C-H	Jam	Mis	Fla	Mac	Sly	Wbb	HPS	Flo	B-J	P-A	RR	Nic	MSC	SBU	TOTAL
Horned Lark																			11
Gray Jay	5	1	2	10	15	3	24	6	*				1		20	39	6	10	229
Blue Jay	28	97	61	166	127	11	315	273	88	203	113	246	120	46	56	123	12	5	3373
American Crow	18	24	43	12	17	6	163	27	5	26	55	35	1	3	3				1547
Common Raven	15	144	13	118	51	62	146	93	138	53	29	72	55	30	26	95	12	4	1966
Blk-cap Chickad *	72	120	197	227	297	49	767	219	73	253	152	226	57	35	99	220	26	5	4829
Boreal Chickadee	1			2			4	3		1		2		2		14	34	7	186
Red-br Nuthatch	2			3	2		7	8	1	1		6	1	2	6	7	25	8	119
Wh-br Nuthatch	2						4	1				6			2	5	2		26
Brown Creeper			*	2	4		7	2				*						*	25
Winter Wren								1											1
Gold-cr Kinglet				4	6		17	2	2										176
Ruby-cr Kinglet																			1
Hermit Thrush							1												1
American Robin	*	*	*	1	1		4	*			1	1		*	*				22
No Mockingbird							1												11
Bohem Waxwing *		30	*	51	195		76	46				1		*	47	*			1021
Cedar Waxwing							*												7
Northern Shrike		1	2	1	2		2	*	1	*		*			2				41
Europn Starling	125	249	246	84	47	6	762	84	26	102	35	127	32	64	29	3			9667
Yel-rp Warbler																			8
Pine Warbler							*												*
Northn Cardinal			3		*		2		*		1				1				10
Ruf-sid Towhee			*																*
A Tree Sparrow		82	47	115	165	4	237	87	*	97	117	201		3					1626
Chipping Sparrw																			1
Savannah Sparr				1															3
Fox Sparrow							1												4
Song Sparrow			*		1		3		1		*								29
Swamp Sparrow																			2
Wh-thr Sparrow			4				5			5					2				32
Wh-crn Sparrow																			1
Dk-eyed Junco		21	87	7	10		59	2		11		3	1		2	4			379
Lapld Longspur																			1
Snow Bunting *	46	147		1	131	93	73	40	12	242		*	130	*	158			8	10418
Red-w Blackbird					2			1		1					1				11
Eas Meadowlark																			*
Rusty Blackbird		1			*		2	1											5
Common Grackle		1			2		*	*		2		2			2				34
Brn-hd Cowbird		3	14				5	6		22		*				1			156
Northern Oriole																			1
Pine Grosbeak	23		47	31	20	2	34	124	39	28	38	16	99	6	42	28	21	1	802
Purple Finch	1		8				37	*			11	*		1	18				132
Red Crossbill		7			11														18
Wh-w Crossbill					15		27	(sp)											60
Common Redpoll *	15	18	30	330	1262	23	508	344	269	415	17	42	98	93	157	99	146	61	7874
Pine Siskin *	56	42	381	2	98		720	175	36	21	11	96		*	13	44	2	85	2177
Amer Goldfinch	6	22	83	6	3		296	38		108	12	2		*			7		728
Evening Grosbk *	126	216	389	292	309	139	1488	115	17	486	297	348	58	29	104	86			6919
House Sparrow	30	130	61	39	141		546	94	1	108	93	57	82	2	97	111			3917
Unidentified	219				134		107	24	38					1					620
TOTAL BIRDS	1091	1773	2018	1586	2126	468	7987	2243	710	2487	1990	2037	760	277	842	803	298	224	103464
TOTAL SPECIES	27	33	28	32	38	16	51	40	21	27	22	28	20	22	29	22	19	14	111
Add. Spp. in Period	2	3	10	2	4	3	9	4	2	3	4	10		8	4	7		4	30
Hrs on foot	26.5	4	3	7	29.5	307	83	16	7.2	8	4.5	9	6	4	4	17	19	11	468.65+
Hrs by car	11	11.8	16.5	24	19.5	207	69	22	11	14	5	3	3	6	8	15	2.5	4.5	583.15+
Hrs otherwise																			18
TOTAL HOURS	39.5	15.8	21.5	31	49	407	148	38	18	22	9.5	12	9	10	12	31	22	15	1056.3+
Km on foot	36.4	6	5	13.5	54	907	159	41	16	12.6	5.6	15	13	2	9.6	22	26	3	872.4+
Km by car	114	178	286	247	248	2447	653	315	225	174	190	86	118	128	342	121	60	22	8306.8+
Km otherwise																			152.5
TOTAL KM	150	184	302	263	302	3347	812	356	249	187	196	100	131	130	352	143	86	31	9331.7+
No. of observers	13	4	8	9	19	9	54	16	5	12	9	6	2	2	7	7	3	6	388
No. of parties	8	3	4	4	7	4	27	7	2	6	3	4	2	1	2	5	2	3	188-203
Feeder reports	6	11	14	19	4		53	12		37	33	27	7	3	7	4			297

Lepreau (Lep) 23rd Year
Dec. 30; 0850-1650. Overcast, light intermittent snow; temp. 0° to -9°C; wind ? Ground mostly bare; standing water frozen.
Scott Gilliland, Scott Makepeace, Donald McAlpine (compiler), Mark Phinney.

Saint John (SJ) 30th year
Dec. 27; 0800-1730. Clear; temp. -8° to -4°C; wind NW 8-15 km/h. 0-5 cm snow cover; standing water frozen.
Terri Anderson, Mike Bamford, Ruth Brown, Heather and Ian Cameron, David Christie, Ken Clark, Paul Clark, Chad Coles, Jim Edsall, Sheila and Rondo George, Janet and Allan Gorham, Kit Graham, Juliet Hickman, Charlotte Hutcheson, Barbara Jacoby, Doris & Cecil Johnston (compiler), Jean Lambert, Isabel LeBlanc, Donald McAlpine, Doreen McIntosh, John McIntyre, Maizie Melvin, Diana & Tony Morris, Mary Majka, Tom Page, Joan & Ron Pearce, Ernest Sawatsky, Allen Sellers, Barbara Schermerhorn, Dave Smith, Don Smith, Evan Smith, Molly Smith, Reg Smith, Audrey Sparks, Sandra Webb, Peter Wilshaw, Jim Wilson, Mitzi & Frank Withers.

Fundy National Park (FNP) 22nd Year
Dec. 18; 0800-1700. Overcast; temp. -18° to -3°C; wind N, 0-8 km/h. 8-18 cm snow cover; sea ice-free, ponds and lakes frozen, brooks partly open.
Marjorie and Max Bowron, Michael Burzynski, Brenda Butland, David Christie, Vincent Crowston, Elaine Eagles, François Granger, Doris Hatt, Nancy Keirstead, Thelma Keirstead, Rod Lutes, Mary Majka, Anne Marceau, Alan Nicol, Paul Parkison, Derek Quann, Doreen Rossiter, George Sinclair, Sedgewick Sinclair, Eugene Taylor, Brian Townsend, Karen Townsend, Robert Walker (compiler).

Riverside-Albert (R-A) 18th year
Jan. 1, 1987; 0725 to 1730. Clear; temp. -11° to 0°C; wind NW, 0-10 km/h. 0-8 cm snow cover; fresh water frozen, sea open.
Myrtle Beeman, Mildred Carpan, David Christie (co-compiler), Jennifer Edwards, George Foster, Angus MacLean, Stella MacLean, Mary Majka (co-compiler), Mike Majka, Mrs. Don Milburn, Doug Whitman, Phyllis Whitman, Bill Wood.

Sackville (Sck) 27th Year
Dec. 20; 0730-1630. Cloudy a.m. with sunny breaks by mid-morning, mostly clear in p.m.; temp. -2° to 0°C; wind NE, 0-5 km/h, increasing N, 10-15. 10-20 cm of crusted snow; freshwater frozen, salt water full of ice floes.
Peter Barkhouse, Paul Bogaard, Sandy Burnett, Lee & Roger Calkins, Ruth Cunningham, Brian Delzell, Tony Erskine, George Finney, Jocelyne Gauvin, Gary Greer, Peter Hicklin, Randy Hicks, Ron Hounsell, Kathy Popma, Al Smith (compiler), Stuart Tingley.

Moncton (Mtn) 25th year
Dec. 21; 0730-1655. Sunny; temp. -14° to-6°C; wind NW, 18-22 km/h. Up to 25 cm. of snow cover; fresh water frozen, salt water open.
Diane Allain, Mike & Chris Antle, Brenda Burzynski, David Christie, Albert Cormier, Yves Cormier, Bob Cotsworth, Brian Delzell (compiler), Halton Delzell, Cheryl Davis, Richard DeBow, David & Ethel Douglas, Mary Fownes, Yvonne Hermitage, Edwin Hughes, Ford Keith, Louis LaPierre, Louis LeBlanc, John Loch, Mike & Mary Majka, Winston Prince, Nelson Poirier, Thyra Quartermain, Alan Raegele, Barbara Swinamer, Rob Walker, Don & Alma White, Doug & Phyllis Whitman, Bill Wood, John Wright.

Cape Tormentine (CT) 26th year
Dec. 18; 0745-1700. Clear; -16° to -10°C; calm in a.m., becoming SW, 0-5 km/h in p.m. 10-15 cm of crusted snow; freshwater frozen, salt water 75% frozen, with open leads in zones 1 and 3.
Peter Barkhouse, Paul Bogaard, Sandy Burnett, Brian Delzell, Tony Erskine, Gary Greer, Hinrich Harries, Peter Hicklin, Ron Hounsell, Al Smith (compiler), Stuart Tingley.

Kouchibouguac National Park (KNP) 17th year
Dec. 20; 0900-1700. Clear; temp. -4° to +0.5°C; wind NW, 10 km/h. 30 cm snow cover; still waters frozen, moving water partly open, ocean open.
Harry Beach, Édouard Daigle, Mrs. Joseph T. Daigle, Gordon Delaney (compiler), Noël Fontaine, Pierrette Robichaud, Mario Savoie, Michel Savoie, Victor Savoie, Harold Sock, Michel Therriault.

Chatham-Newcastle (Mir) 15th year
Dec. 27; 0800-1700. Clear; temp. -14 to -3 C. wind WNW, 17 km/h. 25 cm. snow cover; all water frozen.
Margaret Adams, Sybil Anderson, Mrs. William Arnoldus, Jeep Bosma, Mrs. Robert Bransfield, Phyllis Crowe, Rodney Currie, Gary Daigle, Barbara Digdon, Frank Garrish, Vernon Goodfellow, Linda Hartlen, Phyllis Jardine, John Keating, Luc Lemieux, Robert Lisk, Hazen Lobban, David Lounsbury, Katherine Lounsbury, Sara Lounsbury, Gwendolyn MacKenzie, John MacKenzie, Lemuel McDonald, Mary Rawlinson, Therese Ross, Delta Steeves, Maxine Tozer, David Tracy, Jean Ullock, Douglas Underhill, Bruce Walker, Harry Walker (compiler), Stewart Walker, Winnie Walker, Margaret Wheaton, Bert Woulds.

Tracadie (Tra) 1ière année
Le 20 déc.; 0800-1600. Clair; temp. -4°C; vent NE, 10 km/h. Terre recouverte de neige; l'eau gelée à l'exception du côté est.
Norbert Austin, Denise Benoît, Gérard Benoît, Rose-Aline Chiasson, Hilaire Chiasson, Marcel David, Jean-Claude Doiron, Ernest Ferguson (compilateur), Jean-Raymond Gallien, Arthur-William Landry, Jean-Yves Paulin, Yolande Paulin, Irène Robichaud.

Lamèque (Lam) 14ième année
Le 30 déc.; 0800-1630. Ciel couvert; temp. 0° à -1°C; vent 0 km/h. Sol couvert de 15-30 cm de neige; l'eau gelée au côté nord-ouest de l'île, claire au côté est.
Denise Benoît, Gérard Benoît, Hilaire Chiasson (compilateur), Rose-Aline Chiasson, Marcel David, Jean-Claude Doiron, Jean-Raymond Gallien, Arthur-William Landry, Benoît Robichaud, Irène Robichaud.

Caraquet (Car) 2ième année
Le 28 déc.; 0800-1630. Ciel clair; temp. -8° à 0°C; vent 0 km/h. Terre recouvert de 15 cm de neige; l'eau gelée à l'exception du côté nord.
Denise Benoît, Gérard Benoît, Hilaire Chiasson, Rose-Aline Chiasson, Marcel David, Jean-Claude Doiron (compilateur), Gémma Gallien, Jean-Raymond Gallien, Jean-Paul Godin, Victorin Godin, Arthur-William Landry.

Bathurst (Bst) 6th year
Dec. 27; 0800-1700. Clear; temp. -9° to -6°C; wind NW, 10-20 km/h. Up to 60 cm. snow cover inland; harbour and fresh water frozen, coastal areas mostly open with intermittent ice floes.
Elda Baldwin, Chris Gauthier, Lee Gauthier, Mary Gauthier, Ron Gauthier, Donna Hicks, Barbara Huard, Clifford Huard, Susan Kierstead, Wesley Kierstead, Michel LeBlanc, Charlie McAleenan,

Robert McAleenan, Hazen McCree, Karen McCree, Jim Meagher (compiler), Marie Meagher, Regis J. Pitre.

Sussex (Sax) 14th year
Dec. 20; 0900-1600. Cloudy, clearing in p.m.; temp. -4° to 0°C; calm. Still water frozen, running water open.
Tom Anderson, Eleanor Arnold, Florence Arnold, Margaret Broomhead, Barbara Chestnut, Thelma Brown, Harriet Folkins (compiler), Barry McPhee, Walter Hunter, James Proctor, Evelyn Robinson, Pauline Thibodeau, Carl Steeves, Gladys Steeves, Ruth Willis.

Hammond River-Hampton (Htn) 14th year.
Jan. 3; 0730-1530. Heavy overcast, freezing rain and snow for first 4 hours; temp. -2° to +2°C; wind NW, 10 km/h. 10 cm snow cover; all fresh water frozen.
Bob Barton, Annie Blacquiere, Chad Coles, Henry Darling, Phyllis Darling, John Darling, Rory Grant, Harold Harding, Juliette Hickman, Hazen Inches, Jean Isaacs, Peggy Kelbaugh, Mary Loughery, John McIntyre, Doris Mowry, Geoff Sayre, Alice Strover, Angela Wilshaw, Peter Wilshaw, Charles Wilson, Jean Wilson, Jim Wilson (compiler).

Cambridge-Narrows (C-N) 17th year
Dec. 29; 0815-1630. Sunny with cloudy periods; temp. -6° to 1°C; wind W, 5-10 km/h. Fields bare, 5-10 cm snow in woods; lakes frozen.
Doris Appleby, Enid Arbo, Gordon Arbo, Marion Belyea, Anthony Carpenter, Dilys Carpenter, Jean Carpenter, Lawrence Carpenter, Marie Carpenter, Pauline Chase, Thora Connell, Joan Fanjoy, Imogene Gilchrist, Enid Inch (compiler), Benjamin Kantor, Eileen Kincaide, Dot McConnachie, Elva McConnachie, Audrey Perry, Nellie Perry, Hazen Pugsley, Lillian Pugsley, April Robinson, Helen Robinson, Joyce Robinson, Martha Sypher, Joyce Thorne, Niven Thorne, Phyllis Thorne, Beulah Webb, Frank Webb, Cathy Westgate.

Jemseg (Jem) 24th year.
Jan. 4; 0800-1630. Clear; temp. -7° to -2°C; wind WNW, 12 km/h. fields snow-covered, tall weeds protruding; water frozen except small area at Swan Creek.
Diane Casey, Mike Casey, Rod Currie, Maureen Garrity, Nev Garrity (compiler), Scott Gilliland, Don Kimball, Marven Palmer, Peter Pearce, Ed Petrie, Mark Phinney, Georgette Smith, Rudy Stocek, Owen Washburn, Blair Wood.

Minto (Min) 1st year
Dec. 20; 0730-1730. Clear; temp. -2° to +1°C; wind W, mostly calm. 10 cm snow cover; water frozen.
Ann Boucher, Lorris Boucher, Edward Gallant, Lionel Girouard (compiler), Lionel LaPointe, Vincent Poirier, Ted Murphy, Bill Murphy, Eric Murphy.

Fredericton (Ftn) 31st year
Dec. 21; 0715-1700. Some overcast a.m., mostly clear p.m.; temp. -20° to -5°C; wind SW-NW, 7-17 km/h. 14 cm. snow cover; most water surfaces frozen.
Marg Acheson, Sue Birlar, Joseph Blais, Margie Blais, Fran Boyle, Dan Busby, Gerry Clayden, Susan Clayden, Rod Currie, Andy Didyk, Lucy Dyer, Jeremy Forster, Margaret Forster, Dan Fowler, Neville Garrity, Don Gibson, Scott Gilliland, Lionel Girouard, Jim Goltz, Harold Hathewey, Barb Hildebrand, Harold Hinds, Henry Holland, Philip Iverson, Pat Kehoe, Melanie LeBrun, Nancy Lutes, Scott Makepeace, Barry Monson, Albert Morais, Paul Nicholson, Jean Noble, Jim Noble, Lisa O'Hara, Steve Oliver, Marven Palmer, Peter Papoulidis, Peter Pearce (compiler), Theresa Pearce, Vincent

Poirier, Beverley Schneider, Marc Schneider, Georgette Smith, Dushan Soudek, Herbert Steeves, Rudy Stocek, Rudy Stocek, Jr., Jennifer Szerb, Jane Tarn, Marina Thomas, Tony Thomas, Anthony Wallace, Owen Washburn, Susan Washburn.

Mactaquac (Mac) 7th year
Jan. 1; 0730-1700. Clear; temp. -17° to -2°C; virtually no wind. 10 cm. snow cover; most water surfaces frozen.
Margie Blais, Moira Campbell, Gerry Clayden, Stephen Clayden, Jean Cunningham, Don Gibson, Jim Goltz, Bill Hooper, June Hooper, Ed Keenan, Leona Keenan, David Myles, Peter Papoulidis, Peter Pearce (compiler), Owen Washburn, Timothy Williams.

Stanley (Stn) 12th year
Dec. 28; 0745-1635. Clear in a.m., scattered cirrus cloud in p.m.; temp. -19° to -5°C; wind nil to a light air. Ground frozen, about 30 cm crusted snow in woods; roads mostly bare; river 80% frozen.
Harold Hatheway (compiler), Peter Pearce, Julie Singleton, Darleen Singleton, Robert Whitney.

Woodstock (Wsk) 23rd year
Dec. 26, 0900-1600. Partly cloudy; temp. -1° to -3°C; wind NW, light. 10 cm snow cover; water frozen.
Sheldon Anderson, Leone Avery (compiler), Fred Beatty, Louis Beatty, Rev. & Mrs. T. S. Bellis, Harold Bonnell, Earl Briggs, Mrs. Paul Clark, Gerald Demmings, Gerald Donovan, Mrs. Blair Findlater, Mrs. Nelson Flewelling, Mrs. Melvin Fogarty, Mrs. David Fry, Adam Hadley, Mr. & Mrs. Eric Hadley, Matthew Hadley, Harold Harley, Mrs. Keith Helmuth, Judy Herault, Mr. & Mrs. Ken Homer, Stephen Homer, Murray Hubbard, Charles Matthews, Mrs. Charles MacDonald, Oliver Monteith, Walter Neal, Mrs. Donald Nixon, Mrs. G. A. Olmstead, Eric Randall, Mrs. Robert Speer, Mrs.Donald St. John, Mrs. James Yerxa.

Hartland (Hrt) 15th year
Dec. 26; 0730-1445. Cloudy with snow flurries in a.m., sunny intervals in p.m.; temp. 4°C; wind NW, light. Ground snow-covered with some bare spots; some open water in Saint John River.
Robert Berry, Phillip & Pearl Boyd, Fred & Inez Burnett, Florence Britton, Arthur & Marie Bryant, Anna Canam, Emery Campbell, Diane Clark (compiler), Mrs. Wilmot Clark, Pat Crouse, Neal Davis, Florence Day, Doug DeMerchant,
Rod DeMerchant, Charles & Dorothy Ginson, Clarence Hill, Jeff & Lorri Ann Horne, Jane Hovey, Winnifred Lawrence, Don & Hazel Palmer, Sheila Palmer, Bert & Belle Swim.

Florenceville (FLO) 6th year.
Jan. 3; 1000-1600. Overcast with light snow; temp. -3°C; wind NW, gusting to 50 km/h Up to 30 cm snow cover; water frozen except in rapids and in St. John River from Beechwood to Bristol.
Ford Alward (compiler), Vivienne Bishop, Mr. & Mrs. Elmer Briggs, Eska Buchanan, Sheila Buchanan, Ansel & David Campbell, Jean Carmichael, Ruth Cox, Larry Dow, Mrs. Henry Giberson, Don & Fran Green, Raymond & Marina Green, Jeanette Greene, David & Betty Hatt, Gordon Hunter, Eleanor Kearney, Holland Kearney, Mr. & Mrs. Paul Leahey, Alice Lockhart, Bob & Wanda McIsaac, Lloyd & Pearl McNair, Mr. & Mrs. John Patterson, Pat Post, Dean Prior, Lloyd Ripley, Mrs. Peggy Smith, Jack Soucie, Bill Stewart, Larry Sweet, Fred Welch, Brian Wortman.

Glassville–Juniper (G-J) 4th year
Dec. 29; 0900-1700. Overcast, sunny intervals; temp. -8° to 0°C; wind NW, very light 30 cm snow cover; lakes frozen over, large brooks partly open.

Christine Hennington, Jack Laing, Marge Martinson, Carol Ann McBrine, Elsie McIntosh, Sally McIntosh (compiler), Marion Pearson, Marion Spence, Jesse Welsh.

Perth-Andover (P-A) 18th year
Dec. 27; 0800-1630. Clear; temp. -15° to -5°C; wind W, 5 km/h. 25-30 cm snow cover; rapids ice free in places.
Fred Tribe, Murray Watters (compiler).

Plaster Rock (PR) 15th Year
Dec. 30; 0900-1700. Overcast, a few light flurries; temp. -10° to -3°C; wind SE, light. Bare main roads, icy side roads, very icy fields, no snow on trees.
Yvon Beaulieu, Gwen Clyde, Grace Comeau, Doris Crawford, Kate Finnemore, Donald Hollins, Irene Hollins, Bessie & Peter MacDonald, Donnie MacDonald, Laverne Rabatich (compiler), Emmie Reed, Melissa Skinner, Harold Skinner, Donald Smith.

Nictau-Riley Brook (Nic) 14th Year.
Jan.4; 0800-1600. Clear; temp. -12° to -5°C; calm. 30 cm snow cover; Tobique River open from Nictau to Riley Brook.
Joan & Alex Fraser, Roger Jenkins, Mrs. Celia Knowlton, Erwin Landauer, Rose MacCallum, Frances McCarty, Bill & Wilma Miller (compiler), Rudi Richter, Margaret Sutherland.

Mt. Carleton Provincial Park (MtC) 9th year
Dec. 19; 0830-1600. Overcast; temp. -5° to -3°C; wind NE, 5 km/h. 40 cm. snow cover; fast running water open, remainder frozen.
Roger Jenkins, Erwin Landauer (compiler), Rudi Richter.

Southeast Upsalquitch (SEU) 5th year
Dec. 30; 0930-1530. Overcast with only threatening snow; temp. -6° to -2°C; wind, 0-5 km/h. 41 cm. snow in woods; river frozen with open spring holes.
Chris Gauthier, Ron Gauthier (compiler), Gilles Godin, Charles McAleenan, Ida McAleenan, Hadley Sealy.

This Week had Seven Days

Mary Majka

Stewardesses on the June 29 evening flight from Ottawa probably didn't realize that a group of ten of their passengers came from seven different countries flung across the globe – New Zealand, Hong Kong, the United Kingdom, Belgium, Germany, the United States and Canada. Although of varied age, occupation and background, they were united by curiosity, bubbling enthusiasm, and the binoculars they carried.

As they rushed excitedly into Fredericton Airport, the names on our list became faces. By the time we had shoe-horned them and many pieces of luggage into our rental van, checked into a motel, and sat down over tea

and coffee to discuss our trip we were friends. [We breathed a sigh of relief when the excess baggage problem had been resolved by repacking and shipping the seven largest suitcases by bus to Moncton.]

They were not your run-of-the-mill birdwatchers. Some of them professional ornithologists, others serious amateurs, all had just attended the week-long International Ornithological Congress in Ottawa and to our delight had chosen from a number of post-conference trips to travel along the New Brunswick coast of the Bay of Fundy with David Christie and myself as guides.

Next morning Peter Pearce appeared, armed with bristol board charts, to explain the relationships between spruce budworm spraying and birds. After Peter's presentation under a large maple, typically interrupted several times by flickers, phoebes, and other birds new to most of our visitors, we sped off in the van to see some budworm eaters, an Osprey nest and other birds around Fredericton. Along the way, we stopped briefly to admire a dead skunk [and to photograph Mary holding both it and her nose – DSC].

That evening found us in Deer Island, after a delicious supper in St. Andrews. Having seen the strong tidal currents of Head Harbour Passage, where Bonaparte's Gulls were already beginning to gather, and enchanted by the ferry passage to and from that charming island, we boarded another ferry and steamed towards Grand Manan, keeping a close watch for seabirds and whales.

In three days on Grand Manan, in the hospitable and comfortable quarters of Shorecrest Lodge, we managed to see a lot of the birdlife in which the island abounds, as well as to travel to that mecca for birdwatchers, Machias Seal Island with its puffins, and to Kent Island, where Bowdoin College operates a research station. The director of the station, Dr. Chuck Huntington, was on hand to personally guide our group and show us the nesting Leach's Storm-Petrels.

Full of impressions and notes on new birds by the time we departed Grand Manan, we had became an close-knit group of birding buddies. Passing through Maces Bay, Dipper Harbour, Musquash and Saints Rest Marsh, we picked up a few more new birds and arrived, tired and hungry in Fundy National Park, site of our explorations the next day. We saw lots of warblers, flycatchers and sparrows but, alas, missed the Peregrines!

For two nights we were able to accomodate eight participants in our home and cottage, while farming two off to our neighbourhood bed and breakfast. It was too early for the great numbers of shorebirds but, for some unexplained reason, the stay at Mary's Point was a highlight for many (as we found out later from their

letters). Perhaps it was the atmosphere or just the fact that we had become very close to each other, almost a family, and yet knew that soon each would be departing on a separate plane to a different destination.

The trip to Halifax Airport was anti-climactic. We said warm goodbyes and promised to write. It was the end of seven wonderful days, of ten friends travelling hundreds of kilometres, seeing thousands of birds, and sharing never-to-be-forgotten experiences.

Museum News

Natural Science Department Appointments and Gallery Changes

In the last issue it was noted that geologist Dr. Randy Miller had joined the Natural Science Department of the New Brunswick Museum on a one year contract. The department is now pleased to report that Dr. Miller has become Assistant Curator of Geology on a permanent basis. In spite of the fact that the museum has a long history of collecting in the geological sciences and houses some very important collections, Randy is the first geology curator to be employed with the institution. The museum's geology collections were mostly assembled by members of the Natural History Society of New Brunswick during the late 1800's, but Randy has embarked on a determined effort to encourage geologists currently working in the region to deposit material in the museum, as well as initiating his own research program.

Expanded research and storage facilities have resulted in a geological collections area of over 100 square metres. We are preparing geologic records for computer access, as well as compiling bibliographies related to the collection. The museum library is also updating its geological references, supplementing an excellent existing library of older works.

Studies initiated or completed in recent months include: paleo-entomological study of sediments associated with the Hillsborough mastodon, a note on the status of a supposed Precambrian sponge from Saint John, an update of the arthropod fauna from the Fern Ledges (Saint John), a review of reptile/amphibian tracks in New Brunswick, a review of fossil fish sites in New Brunswick, a catalogue of type and figured fossils in the museum collection (about 200 species; 500 specimens), and a review and bibliography of the work of G. F. Matthew.

Also joining the department on a permanent basis in January, was Mr. Stephen Clayden, as Assistant Curator of Botany, responsible for the botanical collection at the museum (22,000 sheets). Mr. Clayden, a Fredericton native, will be known to some of you as an ardent naturalist and botanist, principal author of the museum publication "Rare and Vulnerable Species in New Brunswick", and 1983-84 secretary of the N. B. Federation of Naturalists. He has spent the past two years pursuing doctoral studies at the University of London, England, and expects to finish off his Ph.D. in the next year. As Stephen has a special interest in non-vascular plants, particularly lichens, we expect to see considerable development of that area of the collection. The little lichen study that has been carried out in New Brunswick suggests it could be an exciting research area and certainly there are no extensive collections of non-vascular plants in the province.

Naturalists visiting the galleries at the museum may be disappointed to find the ground floor science exhibits area about one-third smaller. Our growing research collections, and particularly a collections storage upgrading program carried out over the last two years, have necessitated an expansion of the storage and research area, at a cost of some exhibit space. Re-organization of the collections should be reflected in improved natural science exhibits in the years to come, however. Eventually we hope to recoup lost exhibit space by expanding exhibits into one of the main floor galleries. Visitors can expect to see a gradual refurbishment of the science gallery over the next year, starting with a fresh coat of paint. New exhibits are also planned. One of the first is an exhibit on fossil fish, in the main floor rotunda beginning in January.

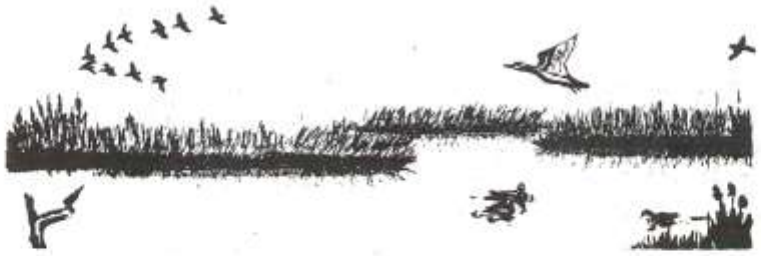
Donald McAlpine,
Associate Curator-in-charge

Club News

More About Saints Rest Marsh

In the March 1986 issue we reported to our readers the struggles of the Saint John Naturalists' Club on behalf of Saints Rest salt marsh, an important area for breeding and migratory birds, as well as naturalists, birdwatchers, and outdoor enthusiasts. The City of Saint John is considering extending its sewage treatment plant farther into that marsh.

Since then the club has made a presentation to the Mayor and Council of the City of Saint John, stressing the importance of the marsh to the local fishing



industry, its potential value to tourism, and its importance to resident and migratory birds.

Cecil Johnston, a prominent naturalist and member of that club, has taken upon himself not only to write briefs and to meet with the city council but also to approach service clubs and other organizations to present a well-prepared and beautifully illustrated slide talk about the marsh. Cecil asks his audiences,

"How many of you, like me, watch some of the magnificent nature programs on television? Those programs are not designed solely to acquaint us with the beautiful species of birds found around the globe, to show us the power and ferocity of some members of the animal kingdom, or to display the variety and strangeness of the undersea life in our oceans. They also point out that we have a responsibility to the creatures that share this planet with us. A major part of that responsibility lies in ensuring that we do not destroy the places on this earth on which their very life depends.

"Man, through his ingenuity, can not only exist, but even prosper, in a wide range of habitats, from the poles to the Equator. The vast majority of wild creatures, however, require precise habitat conditions,zn for their very survival.

"At one time there were 35,000 hectares of salt water marsh around the Bay of Fundy. At present 5,000 hectares are left, of which 1,500 are in New Brunswick. Saints Rest Marsh contains 210 hectares.

"That is why the environmental committee of the United Nations called last year for its member nations to save at any cost what remains of their wetlands. The committee pointed out that more ducks and marsh bird species are lost each year through loss of habitat than through other causes.

"How important is Saints Rest Marsh? A 1985 survey found 25 different species of shorebirds at Saints Rest Marsh, more than at any other Maritime marsh. At the peak of migration, flocks of as many as 23,000 sandpipers could be seen in the marsh area. Considering all kinds of birds, Saints Rest Marsh boasts a

list of 234 different bird species, a few more than the number reported in Ontario's well-known Algonquin Provincial Park, a very much larger area.

"That is why we are asking City Council to correct the overloading problem of the Lancaster sewage treatment plant through the use of modern technology that would not involve the loss of any more marshland for the purpose.

"That is why we are pressing to have Saints Rest Marsh zoned as a conservation area, to protect it from future encroachment.

"That is why we are asking you to become concerned over this issue, and to press for the above actions at every opportunity.

"The only thing the birds of Saints Rest are requesting, is that they have a Saints Rest Marsh to which they can return next year, the year after that, and all the years ahead.

"Whether they do or they don't, depends entirely on me – and on you."

His words could as well pertain to many other places that we as naturalists and conservationists are anxious to preserve or to rescue. Right now, Saints Rest is in an especially precarious position and letters of support are sought from like-minded individuals and organizations. The address is Cecil Johnston, 29 Coronation Avenue, Saint John West, N. B. E2M 3Y9.

Federation News

Feedback

The feedback sheets included in the issue mailed in September must have been largely thrown away together with the envelope, since we got only a few replies. and of those, some from people who are regular correspondents and contributors anyway. We were sorry that so few people took the opportunity to communicate with us, especially because including those two sheets cost about $80.

Those who wrote had a number of interesting comments and some praise for the magazine, although one person suggested having more articles on creatures other than birds and another, more news from federated clubs, more articles in French, and the magazine published on a more regular schedule with more contributors. To all those wants, we can only say amen, and continue to do our best.

Concerning our federation, half those who answered did not comment. One person wrote that she is very happy with what is being done and another told us that we should define the needs of members and clubs. So, perhaps you would tell us of your needs, please. The same person wants to know the federation's role in environmental advocacy and francophone involvement, thinks there should be more field trips, and a logo found. There have been a good number of logo suggestions but so far the board has been unable to decide which one to adopt.

Quite a few questions were raised. To answer them all would be too lengthy for this publication. Here are four of general interest:

Q1. What is the natural history of bird's eye maple? Is the incidence of that grain diminishing? If so, is it feasible to generate new stocks?

A1. There is very little literature on this subject but we found out that it is a phenomenon that often does not involve the whole tree but only some parts of the trunk and sometimes branches as well. It is caused by conical indentations in the growth rings, which continue from ring to ring, frequently for the life of the tree. Marc Scneider says that no explanation has so far been found. A friend of his has noticed that trees with this unusual grain propagate themselves since he found saplings near a probable parent tree.

Q2. Are Spring Beauties endangered?

A2. That lovely spring flower is definitely not in danger of extinction. It grows profusely in many parts of New Brunswick, predominantly in rich, deciduous forest. It may disappear locally if the character of the forest is altered. It requires lots of sunlight during spring, when it blossoms. After that, the plant "disappears", to greet us once again soon after the snow has melted.

Q3. Is the number of frogs diminishing in New Brunswick, or just around my summer camp?

A3. We have not so far seen any significant decrease in frogs. No doubt there are fluctuations depending on the severity of winter and the amount of rainfall during the egg-laying and larval stages. Don McAlpine tells us that salamanders are more susceptible to acid rain than frogs are, but eventually frogs could be affected in some areas. The person who asked should consider whether there have been local changes in water level or predation by herons and raccoons. We would welcome comments from other frog watchers

Q4. How can you succeed in photographing the elusive tree squeaks?

A4. Tree squeaks are very sensitive to music, especially singing. To get a good photograph we suggest you approach from down wind and start singing or playing a tape recorder at high volume about half a kilometre from their nest. Once they answer, a soft humming should be sufficient to keep them peeking from under branches or bark. Use a fast film and a fast zoom lens at f2.8. April 1 is the best day for getting excellent images of those elegant forest creatures. Good luck!

M. M.

"Railway" Controversy

Members living outside the Fredericton area may not be fully aware of the controversy surrounding the route of a former railway at Fredericton. Briefly, the railway route, which extends west up the river, had been transferred to the City of Fredericton. Despite the fact that the area was zoned as parkland, City Council decided to give its title away to adjacent property owners.

A prolonged public controversy ensued as citizens, who felt a fine opportunity to provide a public trail had been squandered, tried to convince the council to reverse its decision. Ultimately, their efforts resulted in a court challenge by Fredericton Heritage Trust, backed by other organizations, including the federation. In early February, the judge ruled that City Council had violated its by-laws.

At press time, it remains to be seen what action City Council will take – to rezone the land and transfer it to n eighbourhood landowners, or maintain the area as parkland and consider proposals for, as federation member Jim Noble put it in a 1985 letter to the Daily Gleaner,

"a leisure trail along the St. John River... for walkers and runners and skiers... for those who might enjoy periodic perambulations along the banks of the river... for those who find simple pleasure in observing wild flowers and birds or letting their eyes wander over this fine valley." DSC

Christmas, You Said?

Yes, we did say that the last issue was to reach readers before Christmas – and some copies did. Fortunate rural dwellers had their bright green mistletoe in time for the big day, but most poor urbanites had to wait till later, perhaps even Jan. 2. Just be glad you weren't Dave Smith. His copy took 3 weeks to travel 3 km from the post office to his home.

Observations des phoques au Parc national Kouchibouguac

Gilles Martin et Louis LaPierre*

Pendant l'été 1986, soit du 15 mai au 26 juillet, des observations ont été faites sur les phoques du Parc national Kouchibouguac, sur la côte Est du Nouveau-Brunswick. Les observations se firent aux environs de l'île aux Sternes et de la dune Richibouctou Nord, deux îles côtières du parc Cette étude fut conduite en même temps qu'une étude intensive des goélands nichant sur la dune. C'est donc en s'y rendant le matin et en y revenant le soir que la majorité des observations sur le phoque ont été faites.

À partir du 18 juin les premiers phoques ont été aperçus. Ils s'agissait, dans ce cas-ci comme dans tous les autres, de phoques gris *Halichoerus grypus*. Au début, seulement de 1 à 6 phoques ont été aperçus à la fois. Ceux-ci se trouvaient entre l'île aux Sternes et la dune Richibouctou Nord, dans le goulet là où l'eau est plus profonde. Du 7 au 16 juillet, des groupes de 10 à 40 individus ont été aperçus, toujours dans les environs.

À partir du 16 juillet, les phoques se regroupaient sur le banc de sable un peu au nord de la dune. Plusieurs reposaient aussi sur la plage de la pointe nord de la dune, mais ce fut la seule fois où des phoques y ont été aperçus. Au début de l'été, les phoques descendent du banc de sable lorsque dérangés par un bateau et retournent plus loin en mer. Par contre, à la fin de l'été ils remontaient souvent sur le banc après avoir été dérangés et même certains phoques y demeuraient au passage d'un bateau.

À partir du 18 juillet, de 100 à 150 phoques (nombre approximatif) se rassemblent sur le banc de sable. Le 18 août, près de 300 phoques ont été vus sur le même banc. Leur hurlement est entendu à au moins 1 km de là. À cette période de l'été, ils semblaient beaucoup moins craintifs, étant peu troublés par le grand nombre de bateaux de pêche qui passaient à proximité. Par contre, lorsque approché de trop près plusieurs se jettent à l'eau. Mais ils y remontent après que l'on s'est éloignés. Ils ont été aperçus sur le banc même jusqu'en après-midi, chose qui ne se produisait plus tôt en été.

Donc, si vous voulez profiter du spectacle des phoques au Parc national Kouchibouguac visitez le parc en plein été à compter de la mi-juillet. Les eaux près des îles aux Sternes et de la dune Richibouctou Nord sont les meilleres pour les trouver.

* Dept. de biologie, Université de Moncton

From the Pages of the Journals

Conservation and Migratory Animals

Christopher Majka

Conservation is an issue which concerns many naturalists, both here in New Brunswick and throughout the world. The deleterious impact of man's activities has been such that many species of plants and animals have been lost to us forever. Even many species which have not disappeared have suffered drastic declines in abundance, even from the numbers which were found at the beginning of the century. In New Brunswick the Passenger Pigeon, the Great Auk, the Labrador Duck and the Sea Mink are some of the animals which have become extinct. Others such as the Timber Wolf, the Wolverine, the Walrus, and the Eskimo Curlew have become so seriously depleted, or have had their ranges so drastically reduced, that they now no longer occur in the province. Not only birds and mammals are vulnerable to such pressures but even humble creatures like insects.

The Harvester is an interesting and beautiful butterfly whose larvae are unusual in that they are predacious. They feed on various genera of aphids which are to be found on plants. Although there are aphids aplenty in New Brunswick the last record I have of a Harvester being caught in the province is in 1949. In all my years of butterfly gathering I have never so much as glimpsed a single one and I have begun to suspect that they may have been extirpated in the province. I wonder if the explosive post-war increase in use of pesticides and synthetic chemicals may have spelled doom for this frail member of our ecosystem?

Such situations have made many biologists and naturalists ponder measures which might be taken in order to protect what remains of our natural world so that further species will not be lost to us. A couple of recent articles "from the journals" have prompted me to examine some of the important issues which are involved in trying to establish an effective conservation strategy.

A recent article in the January-February, 1987 issue of *American Scientist* is entitled "Conservation Strategy for Migratory Species" and is written by (brace yourself) J.P. Myers, R.I.G. Morrison, Paolo Z. Antas, Brian A. Harrington, Thomas E. Lovejoy, Michel Sallaberry, Stanley E. Senner and Arturo Tarak. This article is of particular interest to New Brunswickers since it looks at the problems and difficulties in ensuring the conservation of shorebirds. As the authors of the piece point out:

"Four aspects of the natural history of shorebirds raise concern for their conservation: the fragile characteristics of their life histories, their concentration into small migration and wintering sites, the precise timing and energy requirements in migration, and their competition with man."

Let us examine these aspects of the lives of shorebirds.

Many species of shorebirds nest in the arctic regions of this continent. The season suitable for breeding is very short and usually limits them to one breeding attempt. If the clutch, or the young birds, are destroyed or eaten by predators there is usually not sufficient time for a second attempt.

Many shorebirds undertake extensive migrations, travelling from the Canadian high arctic to various regions of South America. In order to manage this they require a very abundant food source which is precisely timed to the period of their migration. In some instances feeding shorebirds more than double their body weight in a matter of a few days. They use these fat reserves in order to undertake the 40 to 60 hour non-stop flight to South America. There are very few sites which are rich enough in food resources to support the millions of migrating shorebirds which pass through. In North America there are, in fact, eight sites which are the primary focus of shorebird migration and only two of these, Delaware Bay and the Bay of Fundy, are on the eastern seaboard. What all this means is that because of this "bottle-neck" effect shorebirds are singularly vulnerable to disturbances at these sites. Human disturbance, poor climatic conditions, or some form of environmental degradation at one of these sites could have catastrophic consequences if it took place at a time when the shorebirds were migrating through. The strength of a chain is determined by its weakest and most vulnerable link.

This during-migration link is particularly vulnerable because shorebirds at many of these "staging areas" are also in one way or other in conflict or competition with man. The authors of this article point out that in the United States over 40% of ancestral wetlands have been lost due to draining and development. Over two thirds of coastal wetlands which had existed in California in 1900, for example, have now been developed. On the eastern seaboard mosquito-control programs have affected 90% of the coastal tidelands between Virginia and Maine.

The lessons which the authors draw is that the key factor to protecting and assuring the continued survival of shorebirds is to protect the habitat which is key to their survival. All the links in the chain must be secured otherwise the most strenuous protection in one area will be of no avail if the habitat in another area is being destroyed. The blessing of migration is that it allows animals to use resources cyclically in areas which are not suitable for their use throughout the

year. The flip side of the coin is that these animals are dependent upon every link in a specific sequence of sites.

This concern in relation to shorebirds has lead to the establishment of the Western Hemisphere Shorebird Reserve Network (WHSRN), a co-operative venture between wildlife agencies in Canada, the U.S.A., Mexico and Peru (with hope of involvement by other states in the Americas). The WHSRN has identified over 90 sites in the Americas which are important to the migration of shorebirds. Thirteen of these are so called "hemispheric reserves" which support either more than 250,000 birds or 30% of a species population. The remaining sites are regional reserves which support at least 20,000 birds or 5% of a migratory population. Although there is no legislative protection for many of these sites, the WHSRN hopes that by drawing attention to their importance their protection will in time be facilitated.

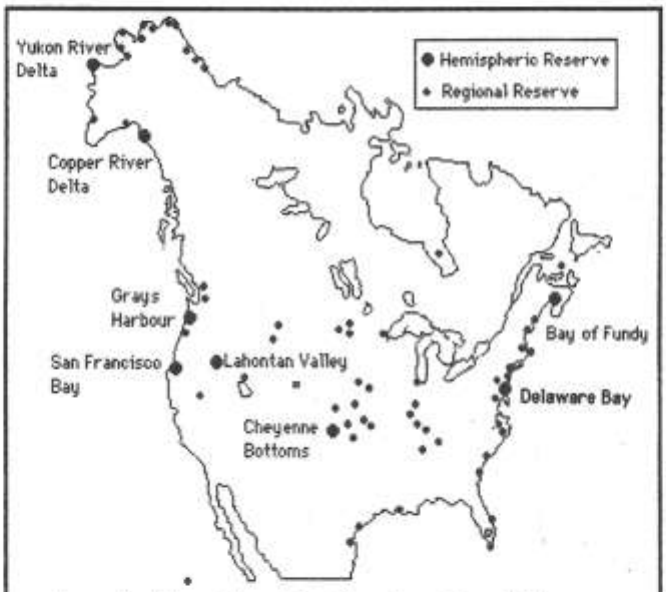
A similar conclusion suggests itself to me from an article called "Estimation of Prey Densities Required by Western North Atlantic Right Whales" co-authored by (brace yourself again!) Robert Kenney, Martin A.M. Hyman, Ralph E. Owen, Gerald P. Scott, and Howard E. Winn (whatever happened to old single-author articles?) published in the January 1986 issue of *Marine Mammal Science*. This is a much more technical article than the former and concerns itself more with whale physiology than conservation directly.

The lack of a significant recovery of Right Whale stocks in the North Atlantic since their protection in the mid-1930's (and really since the 1750's when the fishery for them collapsed because of low numbers!) has led the authors to speculate that the reason may be lack, in many areas, of food stocks of sufficient density to allow them to successfully grow and reproduce. With this is mind they have tried to calculate, using estimated values for body weight, metabolic rate, assimilation efficiency, time spent feeding, mouth size and swimming speed, how much plankton Right Whales (which feed largely on copepods - remember them from my July article in the *New Brunswick Naturalist*?) would have to consume in order to grow and reproduce. These calculations are full of unknowns and estimated values but the long and short of it is that they arrived at a value over 1,000 times greater than the densest concentration of zooplankton which they were able to sample!

Clearly there must be some errors in the assumptions from which these calculations were conducted, however, the lesson to be taken is that in all probability Right Whales must have to seek out and exploit very dense patches of zooplankton in order to sate their leviathan appetites. Such circumstances may no longer exist in many places because of pollution, other forms of environmental degradation, and intense exploitation of fisheries stocks by man. One of the few places where they can find such circumstances is at the mouth of the Bay of Fundy

- Gulf of Maine - Brown's Bank region, which every summer harbours a population of Right Whales which may number anywhere from 200 to 400. This may be the bulk of the entire North Atlantic population!

The lesson again is that a most essential component in the conservation of Right Whales is being able to protect the sites which they use at this stage of their yearly cycle.[1] As in the case of the shorebirds they are crucially dependent upon a food resource being present at the right time of year in the right place. Both of these articles imply that for migratory species, and this includes many birds and animals found in the northern hemisphere, conservation strategies have to be focused to an important degree around habitat protection. For New Brunswickers it is a special privilege, and responsibility, to realize that our conservation efforts have an importance and impact not just within our own province and country but within the entire hemisphere.



Important Locations for Migratory Shorebirds

1 Right Whales, too, are migratory species. They spend the summer in this area and then move to some unknown locality for the winter.

NEW BRUNSWICK FEDERATION OF NATURALISTS
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La fédération est une organization sans but lucratif formée en 1972 pour faciliter la communication entre les naturalistes et entre les divers clubs axés sur l'étude de la nature, pour encourager une meilleure compréhension de la nature et de l'environnement naturel, et pour sauvegarder le patrimoine naturel du Nouveau-Brunswick.

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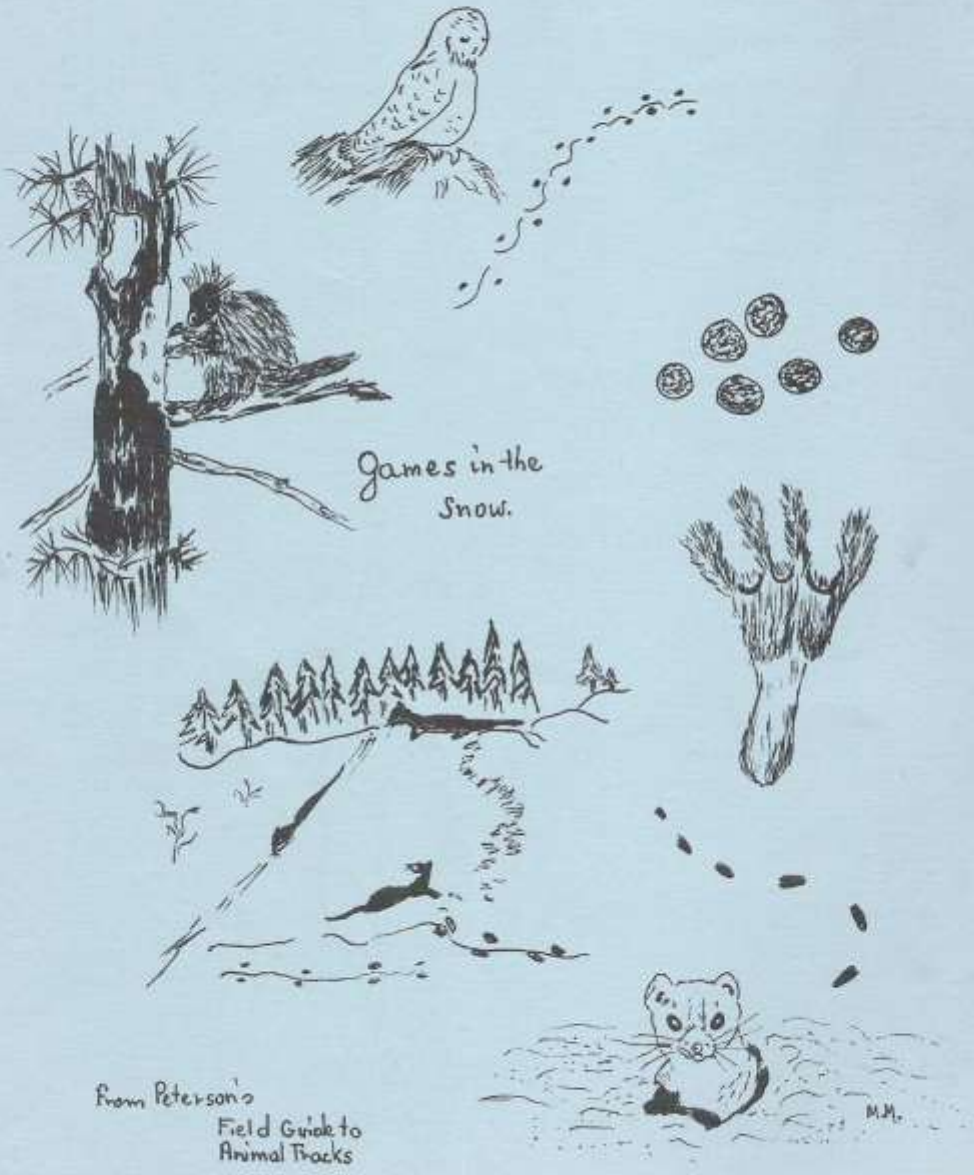
Can you figure them out?



From Peterson's
Field Guide to
Animal Tracks