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We are sending this number of the New Brunswick Naturalist, the first to be published by the N. B. Federation of Naturalists, to many persons who, in one way or another, have indicated an interest in nature. A good many of you may be unfamiliar with the newsletter, which previously was issued by the N. B. Museum. News of observations of nature has comprised almost its entire contents, but it now will also include articles on nature and related subjects and news of the activities of the federation and local clubs. The current issue suggests the type of contents we hope to include. Articles are requested for future issues. They may be illustrated by ink sketches.

In drafting the federation's constitution in November, care was taken to adopt both English and French versions of the name so that both major language groups would feel part of the organization. Our policy in this newsletter will follow a pragmatic approach to the use of the two languages. We will accept contributions in either English or French, and we will try to include short summaries, in the other language, of all major articles. In that regard, we need volunteers who would be willing to write one paragraph summaries, in French, of two to four English articles a year.

Naturalistes francophones, nous vous invitons à soumettre des articles en français. Aussi, nous avons besoin de volontaires qui voudraient écrire des résumés brefs en français des articles en anglais.

To receive the New Brunswick Naturalist, you are invited to join the NBFN by completing the attached membership form. In so doing, you will be supporting the federation's programs throughout the province. If you have been a subscriber, through the museum, your subscription will be honoured till its expiration date, as indicated with your address on this issue.

Editorial Committee  
David Christie, Mary Majka, Peter Pearce

#### FROM THE PRESIDENT'S NICHE

It is with great pleasure that I write these words to members and potential members of the NBFN. The founding of our federation is an important event for persons interested in nature in New Brunswick. For years, we looked at the organizations of some neighbouring states and provinces, envying the things they were doing but, with a small population of naturalists, never having enough support for a group of our own. Eventually, encouraged by the beginning of the

Canadian Nature Federation, naturalists here felt the time had come. Preliminary discussions in December 1971 led to the federation's founding meeting, at Sussex, on November 18, 1972.

When I began to write this message, I penned the words "From the President" at the top of the page. But that seemed too formal and severe. I tried an informal approach, "From the President's Perch," which suited me better, but was too birdy! A further change to "From the President's Niche," as in "ecological niche," the role of a plant or animal in its natural community, seemed much more appropriate for a group of people interested in a variety of aspects of nature. This led me on to thinking of the federation, in terms of a biological analogy.

The NBFN is like an introduced species, new to the province. Small populations are established at three centres of introduction (Fredericton, Saint John, and Moncton) and individuals have dispersed to other districts where, if enough of them are present, they have begun to multiply and establish other population centres (as at Sackville). An alien species first finds its niche within the specific community to which it is best adapted, and for the NBFN this is the community of persons with a strong interest in nature. Later, if adaptable, it may begin to occupy niches in other communities, and for the NBFN these might be the community of conservation and environmental groups and the community of the general public.

We hope to follow similar stages in establishing the federation. The constitution, adopted at our founding meeting, includes four objectives: to develop in the members an understanding interest in nature, to promote communication and cooperation among naturalists, to represent the naturalist's viewpoint on conservation matters, and to promote general education about the relationships between man and nature.

The first two of these, directed towards naturalists, will bear our main attention via this newsletter and a program of meetings and field trips in various parts of the province. At the moment, plans are being made for a March meeting in the Newcastle - Chatham area to stimulate interest and gain members from that region. After that, we will be looking at other centres, concentrating on those where we have a member or two who are willing to advise on local conditions. If you would like to have a meeting in your area, please write to Mary Hajka (RR # 3, Hillsborough) who is looking after the arrangements. Some of these get-togethers may give rise to new local clubs. I'm pleased to report that Sackville people, four of whom attended the founding meeting, have "taken the bull by the horns" and plan to form a group there this month. (Contact Allan Smith, Queen's Rd., Sackville, for information.)

When we develop a good membership base with representation from all parts of the province and get our newsletter, meetings, and field trips running smoothly, we will be able to examine our other objectives. Our present policy on conservation issues is to support, as best we can, the Conservation Council of New Brunswick. Cooperation should be relatively easy since three members of our board are also CCNB directors. This statement to the contrary, already we have gone our own way and presented a brief to Environment Canada concerning Machias Seal Island, have lent support to the Saint John Naturalists' Club for its brief on that city's Comprehensive Community Plan, and are gathering information about lumbering on Gilbert's Island, spring hunting on the North Shore, raptor protection, and the status of the Eastern Panther. But, we do not intend to become greatly involved at this time.

We are even less likely to attempt any public education campaigns. At the 1971 discussions, which led to our founding, it was suggested we start a "young naturalists" program, a most worthwhile project that could be developed in conjunction with the Federation of Ontario Naturalists' well-established effort in that field. But first things first!

At the moment, everyone's effort is needed to build the organization and develop a strong member-oriented program. Send me your ideas about it. I hope each of you will find a meaningful and satisfying niche!

David Christie.



#### DESIGN CONTEST WINNER

In volume 3, number 3 (June 1972) of the N.B. Naturalist, a contest was announced to seek a cover design for the newsletter. Five entries were received and that of Donald Kimball (RR # 5, Hartland) was selected as winner. He received a copy of "A Naturalist in New Brunswick" by W. A. Squires. Donald's drawing of an Osprey, to be accompanied by the words "The New Brunswick Naturalist," is reproduced below.

The federation's Board of Directors, meeting January 13, decided that they will seek a symbol to represent the NBFN, for use on letter-heads, on the title page of the N.B. Naturalist, for automobile stickers, or whatever other emblems might be produced. Donald Kimball's Osprey will be considered, but they would like to have a greater number of designs from which to choose. Beverley Schneider (RR # 4, Fredericton) is chairing the NBFN symbol committee and would be pleased to hear from anyone with ideas for a symbol or how to go about finding one.



#### WINTER BIRDING\*

(being a short account of a club field excursion  
to the Bay of Fundy coast on 30 January, 1965)

P. A. Pearce

Among other things, bird watching has been described as "a mild paralysis of the central nervous system, which can be cured only by rising at dawn and sitting in a bog". On 30 January, nine members of the club sought alternative alleviation of a now prevalent complaint by journeying to the Bay of Fundy coast where the wind gusted to forty, the mercury was close to the zero mark and the chill factor was consequently pretty chilly. The itinerary allowed for stopping places at Saint John, Dipper Harbour, Point Lepreau and Maces Bay.

Huddled together on the ice of Courtenay Bay in Saint John, as if for mutual protection from the biting wind, was a large concourse of Herring and Great Black-backed Gulls. Our approach sent them wheeling high into the blue sky, the sunshine bright on their white plumage. Here and there could be picked out Iceland Gulls, winter visitors from the north. The most exciting find of the day was four Black-headed Gulls. The names of many of our birds describe them in their summer plumage and that gull is one of them, except that its head is brown rather than black! The Black-headed Gull is very similar to Bonaparte's Gull but is slightly larger and has a red bill. A good field mark is the dark underside of the wings. Those birds could readily be picked out from the other gulls in the bay because of their much smaller size. One was particularly well seen as it swooped about investigating the possibility of a snack along some exposed ground and running water fairly close by. The Black-headed Gull comes from Europe where, like many of the dark-headed gulls, it spends most of its time inland. A small number have been putting in a regular winter appearance at Saint John for the last four or five years now: that is one of the few places in New Brunswick where they have been seen.

At Dipper Harbour, a Great Cormorant surfaced close to the wharf. That species, variously referred to as common cormorant, European cormorant or shag, is a not unusual visitor to our winter coasts and is much larger than its more familiar, double-crested relative. Possibly disconcerted at several binoculars peering at it over the top of the timber piling, it soon vanished with a quick thrust of its powerful legs and a glimpse of stiff, rounded tail, to emerge at a more discreet distance. Dotted about on the sheltered harbour were several Buffleheads or "buffalo-headed ducks," the females almost dowdy compared with their immaculately white and black consorts.

To the uninitiated bird watcher, Point Lepreau may not at first appear to be a very fruitful place at which to indulge his hobby. However, patience is often rewarded by the sight of quite a variety of the less-often encountered seabirds as they shuttle back and forth. On gusty days the headland, jutting into the bay as it does, is a good vantage point from which to see Black-legged Kittiwakes. There were in fact about forty of these graceful gulls there. Most oceanic representatives of their family, those birds range over the whole of the North Atlantic. Their specific name *tridactyla* refers to an anatomical oddity - the fact that they have only three toes. It must, however, be confessed that that is not much of an aid to identification when the birds are milling about over a hundred yards away. Buzzing along on short, narrow wings among the kittiwakes were several Razorbills which, along with other members of the auk family, are the nearest approach to penguins we have in the northern hemisphere. Underwater they propel themselves at a quite respectable speed using their wings. Razorbills invariably go about their business, out of the breeding season, at a frustrating distance from the land-bound observer.

\* Reprinted, with minor changes by the author, from the 1965 Annual Report of the Fredericton Field Naturalists' Club. Similar trips can be made anytime, December thru February.



A lone Purple Sandpiper sped around the corner. That is the only shorebird which occurs regularly in New Brunswick during winter and it is sometimes seen in very tightly packed flocks of several hundred. It is often called the "winter snipe" and likes nothing better than to cavort on the wave-splashed rocks, for which pastime its very short legs are well suited. Another Great Cormorant flew by, displaying the two conspicuous white flank patches which are the mark of the breeding plumage: it was rather early in the year for it to be so attired. Two Common Loons and a Horned Grebe were riding on the waves, more often out of sight than in view. A group of three male and one female Oldsquaw together with a Common Eider presented a pretty scene. In Europe the Oldsquaw is aptly called the Long-tailed Duck. It has a variety of other names too, many referring to its habit of endless chattering.

Rolling through the wave troughs, the dark glistening back and dorsal fin of a porpoise was occasionally seen. Porpoise means "sea hog" and is derived from the French "porc-poisson". At one time it was considered a great delicacy, fit for kings. It was then thought to be a fish and was eaten on days of abstinence with equanimity and a sauce made from bread crumbs, sugar and vinegar. Among the rocks, the grey head of a seal emerged, remained suspended for a few seconds and then slipped unobtrusively back beneath the surface. Men were abroad on that wintry sea too: a cargo vessel crawled along the horizon while, much closer, a cutter beffetted its way in the direction of Saint John.

By now it was time to return home. The journey back to Fredericton was uneventful, with only the occasional crow or raven to be seen slowly flapping across the road. For one or two persons it was a particularly uneventful journey: in the comforting warmth at last, they slept!

#### THE RIVER OTTER \*

by

John Bothell

Otters are actually large aquatic weasels with long streamlined bodies and short webbed feet. There are two different species living in North America, the sea otter and the river otter.

The sea otter is larger (over five feet long) and more valuable than the river otter. It is found only along the Pacific coast from California to Alaska. The early exploration and settlement of the Pacific coast was spurred on by the great value attached to the sea otter pelt. Today these animals are protected and are making a slow return after becoming nearly extinct due to over-killing by man.

In a recent bulletin of the Animal Welfare Institute I read that it has been estimated that over 1000 sea otters were killed as a result of the five megaton Cannikin bomb that was exploded at Amchitka, Alaska. This is a large number for an animal on the endangered list. If these animals, which normally live hundreds of miles from the nearest settlement, are still injured or killed by man and his activities then I am rather pessimistic about the survival of wildlife elsewhere on earth.

It's little wonder that the sea otter's fur was so sought after. I have never seen one, but judging from my own river otter pelts I assure you that their fur is wonderfully soft and rich. The river otter is quite common and may be legally trapped during certain times of the year.

The river otter of the Miramichi is one of four races found in eastern Canada. Being a possible candidate for dental school I am interested in teeth and skulls. In the otter we find a rather peculiar dental formula which identifies it readily. It has even numbers of canine and incisor teeth on both sides of the upper and lower jaws but different numbers of corresponding premolars and molars in its upper and lower jaws.

\* Condensed from the author's column "Miramichi Wildlife", published in the Miramichi Gazette, April 1972.

Another interesting feature I found in the otter is its very long tapering tail.

One cannot help but mention the beautiful fur of this animal again. The hair is short and dark brown in color although it looks black in the water. A few weeks ago a school bus driver reported seeing a seal at Blackville. It is possible, but more likely it was a large otter. The otter has a seal-like shape and face, along with prominent whiskers.

Otters are found throughout Canada and the United States except perhaps the far northern coasts and arctic islands. It can be found in lakes, streams, marshes and even at the seashore. Of all the carnivores (meat-eaters) in eastern Canada it is the most evenly distributed. It is also the best swimmer, being able to catch even muskrats, although their main diet is small fish. Commercial fishermen, as you might expect, are terrified at the sight of an otter near their nets. I would think that the few otters we have on the Miramichi would have little effect on the salmon or trout population. Other food that they may eat in addition to small fish are frogs, salamanders, crayfish, insects, snakes, turtles, birds, rodents and some vegetation. — an otter is a roving gourmet. Believe it or not, he may reach 30 pounds in weight and be some four feet or more in length, with the tail accounting for about a third of the length.

Few people ever see an otter in the open. A farmer may be working in his field every day and yet not see the otter in the stream or lake nearby. They are shy and secretive animals but not when in their own company or when they have never seen man before. They have been known to play hide-and-seek with canoers, but more noticeable than that trick are the playful antics at their favorite slide. The slide may be of snow, grass, clay or mud. With their short little legs tucked in they slide down on their bellies into the water. They do this over and over again just like excited kids at a swimming pool.

During April or early May mother has her two or three pups. The young are born in a bank burrow above the water line. Usually she spends more time with the family than the male does. At times they may be found together as a family unit having a great time learning to hunt and play.

The otter has few enemies other than man. In New Brunswick about 200 are caught each year. The average harvest in all of Canada between 1950 and 1960 was about 15,000 pelts with 10,000 coming from Quebec and Ontario. The average value per pelt for this period was slightly over \$30.00. It is one of the few furs which has a fairly stable market value. After seeing the fur myself I wouldn't sell it at \$40.00 a pelt.

They say an otter makes an excellent pet. Some are known to have lived about 20 years in captivity. In the wild their average lifespan would probably be less than half this. They are certainly wonderful animals to have in our area and frequently will be encountered by people making the effort to travel our wonderful river, which is just begging to be explored.

#### A SENSE OF WONDER

by  
Mary Majka

What ever happened to the child's sense of wonder? The delightful quality of the young that makes this world a garden of unexpected magic!

Yesterday I walked with Susan and her mother through the snowy winter afternoon. It was one of those soft, white days when the sun manages to filter through a clouded sky. The air was crisp and invigorating, a perfect day for Susan and for me.

"Susan, stop running! Susan, don't breathe through your mouth! Susan, don't step in that snow!"

Despite all this, we stopped in awe and admired the tall trees covered with hoar frost — we knelt down to see where the sparrows hide in the bushes — we caught



snow on our tongues and eyelashes, and watched, enchanted, the rosy glow of hidden sunset colour the snow first pink and purple, later blue and green and finally gray.

In her five year old hands Susan still holds that sense of wonder -- but for how long? Soon her mother is going to replace it with dresses, shoes and make-up. Her teachers will try hard to make her understand that daydreams do not bring good marks or prizes. By the time she becomes a responsible, young woman, and perhaps a mother herself, she will have lost a most precious gift born into every human being.

Today that ability simply to enjoy nature is more than just a romantic, sentimental feeling. We have to realize that the next generation is the last one to have a reasonable chance of straightening out all the trespasses against nature that mankind has allowed itself. If Susan and her contemporaries fail, so may life on this planet.

A child discovering the first mayflower of spring is a pledge of hope for the world's future. Bringing it up without that chance of discovery is to miss a step in its development. Just as deprivation of parental love for a baby, it will bear far greater repercussions than we can envision. Long ago, St. Francis called the water and wind, the birds and beasts his brothers and sisters, the fire, the stars and planets his friends. Once we might have scorned his whimsical statements. Today we see in them pointed advice on the proper relationships between man and the universe. Our hope is in Susan's direct, uninhibited way of looking at this world.

#### BLUEBIRDS AND HOUSES

by

Jim Wilson

Because of the substantial increase in the number of Bluebird sightings in the province in 1972, I think the time is right to try and generate some interest among "Naturalist" readers in erecting Bluebird houses in various areas of New Brunswick.

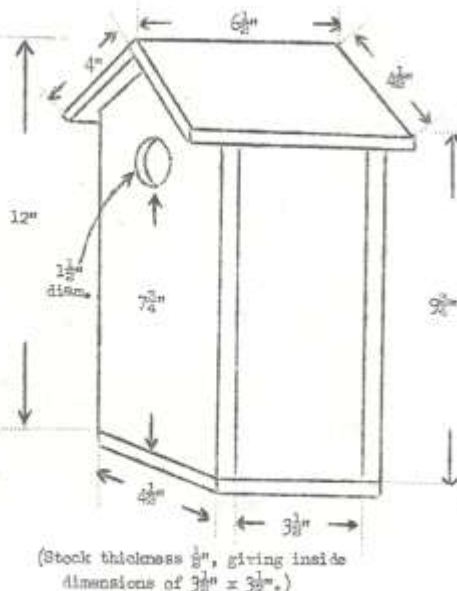
For the past three years, I have been putting up a small number of houses in Charlotte County, and so far have had an encouraging amount of success. Because of this I firmly believe that one of the principal factors limiting the distribution of this species is competition for suitable nesting sites, and that erection of birdhouses can do a lot to boost populations in suitable habitats.

I have been an enthusiastic birder all my life but until 1969 I had never seen a Bluebird in New Brunswick. That summer, while picking blueberries, my wife and I found a pair of adults near New River Station. The area was flat and relatively open, had numerous fenceposts, and looked like the typical type of breeding habitat that I had read about.

The following spring, I erected two houses at widely separated points in that area and checked them periodically. On May 30, I was thrilled to find a pair of Bluebirds defending one house against two pairs of Tree Swallows. The Bluebirds had built an incomplete nest, but on my next visit I found that they had moved to a nearby hollow fencepost where they later successfully raised a brood of four.

In 1971, after making several changes in house design to approximate the size and shape of the fencepost cavity more closely, I put up five houses within a six-mile circuit in the area. I was extremely fortunate to get three pairs of birds in the houses and was able to locate a fourth pair nesting in a natural cavity nearby. These nests produced successfully a total of eighteen young.

This past spring, I erected fourteen houses within a ten-mile circuit and six pairs of Bluebirds nested in them. I also located three additional pairs nesting in natural cavities, and another singing male which possibly represented a tenth nest that I was unable to find. In all, twenty-two young left the nests successfully.



The accompanying plan is the one for the houses that the birds have used. It should not be considered perfect by any means, but for anyone interested in building a few of their own, it will provide a model to which improvements could be made.

The one and one-half inch hole excludes Starlings, and the only other species which has used them so far has been the Tree Swallow. I don't know about House Sparrows — there haven't been any in the places my houses have been. However, I think the deep, constricted inside dimensions might discourage them, because of the usual bulky nature of their nests.

I have used a dull brown or greenish paint on mine, to make them rather inconspicuous to possible molesters. For the same reason, I have made it a point to erect them in inconspicuous locations. All the houses were placed within five feet of the ground. One which was used twice by Bluebirds was only about two and one-half feet up.

Raccoons could be a problem where they are numerous. One of the houses occupied by Tree Swallows was robbed last year. As yet I don't have a satisfactory solution to the problem. Perhaps the house design could be modified.

For anyone interested in erecting Bluebird houses, I would suggest that they try an area from which there have been previous (preferably recent) spring sightings. The area should be relatively open, preferably with a stub or post to which a house could be attached. If there are no previous sightings in your district, any area which has extensive blueberry plains might be a good bet. This seems to be the preferred habitat in the New River—Pennfield vicinity.

Reports in the "Naturalist" show 1972 spring sightings at several places — Woodstock (pair), Magaguadavic Lake (pair), Hammond River (2 pairs), Fundy Park (1), Mary's Point (1), and New River—Pennfield (several). Fall records are not as significant, as the birds tend to wander at that time of year, but there is again a report from Woodstock, as well as several from other widely separated points. One of the more interesting of these is from Lower Brockway, a former, known breeding area at which there have been occasional sightings in recent years.

My houses have been erected about the first week of May. The earliest egg date so far was May 25, but the majority of nests have been completed before the second week of June. That seems to tie in with spring reports elsewhere in the province, most of which are in early June.

If anyone is interested in putting out houses for Bluebirds in the coming spring, I would be happy to supply any information that I can. I think it would be a worthwhile project that would give any bird-lover a good deal of satisfaction. Even if the houses are not occupied by Bluebirds, they certainly will be welcomed by Tree Swallows, so the effort won't be wasted.

Editor's note: Mery Majka saw a male Bluebird near her home in May 1966 and quickly placed a nest-box on a nearby pole. The next day a female appeared and in mid-July 5 young left the nest. It might be worthwhile having a house on hand, ready for just such an opportunity. The Moncton club put up 75 houses in 1967-68, virtually all of which were occupied by Tree Swallows, none by Bluebirds. The houses had bigger interiors but were not as deep as Jim's model, which may have given the swallows a competitive advantage.



# FOREST INSECTS AND DISEASES

We are pleased to be able to quote from the "Summary Report of the Forest Insect and Disease Survey, Maritimes Region - Fall, 1972". The survey is a division of the Maritimes Forest Research Centre, Canadian Forestry Service, Fredericton.

Spruce Budworm - "Egg-mass sampling at 1,065 locations in New Brunswick showed that the total area of infestation is 13.3 million acres, down 1.5 million acres from 1971. Of this total, 5.8 million acres were classed as light, 2.7 million acres as moderate, and 4.8 million acres as high. The area of high infestation was 9.0 million acres in 1971. This reduction in extent of high infestation was matched by a reduction in density, the egg-mass count averaging less than half that of 1971. The most striking reductions in density were in the eastern coastal and southern areas and generally throughout the sprayed areas. The intensity of infestations did not increase anywhere in New Brunswick. This reverses the upward trend of the past 4 years."

Gypsy Moth (an introduced species recently discovered in N.B.; an important defoliator of hardwoods in the eastern U.S.) - "The use of baited traps designed to capture male adults was continued in 1972, in cooperation with Plant Protection Division, Canada Department of Agriculture. Many traps were set out where moths were taken in 1971 in Charlotte County and Fundy National Park in New Brunswick and from Annapolis Royal to Yarmouth in Nova Scotia. Otherwise they were distributed at widely separated points along major road systems throughout the region. This program resulted in the capture of one male moth each near Bocabec and at Johnson Settlement in Charlotte County, and at Fundy National Park. None were taken in Nova Scotia or Prince Edward Island. No egg masses were found in the areas where captures were made despite careful searching."

Scleroderris Canker of Pine (caused by the fungus *Lagerbergia abietina*; first discovered in N.B. in 1971; has caused poor growth and mortality in many pine plantations, particularly of red and jack pines, in Ontario and Quebec) - "This disease was found for the first time in Nova Scotia on a few red pine trees on the Garden of Eden Barrens, Pictou County. This disease is also known to occur in pine plantations or natural stands in Northumberland, Kent, Albert, York, Madawaska, and Queens counties in New Brunswick." A C.F.S. pamphlet entitled "Learn to Recognize Scleroderris Canker of Pines" says that in spring "A dead terminal bud surrounded by light green needles with brown bases is the first easily recognizable symptom. This symptom should not be confused with that of winter drying, where the tips of the needles are brownish, the bases are green, and the terminal bud, in most cases, is not dead." The C.F.S. would be pleased to receive possible samples of this disease. Send them to Box 4000, Fredericton.

Fume Damage - "Tree mortality has occurred over about 4000 acres of immature forest near and downwind from an underground mine in north-central New Brunswick where sulphur dioxide (SO<sub>2</sub>) has escaped since early 1971. By September 1972 at 0.75 mile southeast of the SO<sub>2</sub> source, no living ground cover existed, lichens had disappeared and all eastern white cedar and white birch trees had been killed as had 94% of the balsam fir and 74% of the black spruce and red maple.... White pine is the most susceptible of local conifers.... and, of scattered individuals, 200 to 300 years old.... some 400 have been killed, most within 3 miles of the mine but some up to 8 miles away."



Left: Occurrence of Scleroderris canker of pine, 1972. (From Canadian Forestry Service map).

Right: Distribution of 1972 Christmas Bird Counts in New Brunswick (see pages 11 to 16).



#### CHRISTMAS BIRD COUNTS

December weather, which sets the stage for the Christmas Bird Counts, was fairly cold and snowy this winter. Except along the Bay of Fundy, monthly snowfall totals were about twice the usual amounts, reaching 60 inches at Fredericton and Charlo. Average temperatures ranged from 3° colder than usual at the Fundy coast to about 8° colder in northern New Brunswick. Such conditions were severe enough to kill off most non-hardy birds which had been lingering in the province. Several Mourning Doves and Baltimore Orioles at Saint John dwindled rapidly in number and only one of each survived until the first few days of the Christmas Count period while none were left by count day.

The evergreen cone crop is variable this winter, being very good only in coastal Charlotte County. Probably there would have been an excellent crop throughout, were it not for the stress that the spruce budworm has exerted on the spruce and fir in most districts. Among hardwoods, the birches and Red Ash, at least, have fairly good crops of seed.

Two hundred eighty-nine persons participated in a record 27 counts this winter, spending 521 party-hours in the field and watching 102 feeding stations to tally a total of 39,463 birds of 103 species which, despite the moderately harsh weather, or perhaps because it was not too severe along the Fundy coast, was only one species less than the record 104 in very mild 1969. By way of contrast, 94 species were seen in very severe 1970 and 103 in normal weather last winter. Four of the areas, Newcastle-Chatham, Hampton, Nackawic and Mactaquac are new counts this year. Grand Falls is represented again, after a few years' absence.

Six new species were added to the list of those recorded on Christmas Counts in New Brunswick: a Gyrfalcon and a Common Snipe at Saint John, 2 Osprey at St. Andrews, 2 Screech Owls at Nackawic and a Red-headed Woodpecker at Lepreau; also a Double-crested Cormorant at Saint John. The cormorant, snipe and owl each had been seen once previously in the count period, but not on a count day. Two other Gyrfalcons were found in the count period this year, both at Dalhousie! These three follow on the heels of three reports during the fall, indicating an exceptional flight of these arctic falcons this winter. A new species observed during the count period was an Eastern Phoebe. One wonders how a flycatcher, even a fairly hardy one, can survive Fredericton's snow and cold. Another two species which should have been further south were 2 Water Pipits at St. Andrews and a Loggerhead Shrike at Cape Tormentine. Each has been reported once or twice before. Extreme care should be taken in identifying winter Loggerheads, since Northern Shrikes are very similar and much more likely to be here.

Among lingering individuals of breeding or migrant species were a Green-winged Teal, 2 Marsh Hawks, 2 Pigeon Hawks, 3 Sparrow Hawks, a Kingfisher, a Mockingbird (5th year at Moncton), a Brown Thrasher (far up the Tobique, at Nictaul), 3 Ruby-crowned Kinglets, a Cedar Waxwing, 2 Myrtle Warblers (usual spot, Cape Tormentine), 2 Rufous-sided Towhees and a Swamp Sparrow. Individuals of Great Blue Heron, Mourning Dove, Yellow-bellied Sapsucker, Baltimore Oriole, Dickcissel and White-crowned Sparrow were seen during count period.

Among the waterbirds, most species seemed to be in about average numbers overall. Fewer Glaucous and Iceland Gulls, Red-throated Loons (only one) and Red-breasted Mergansers were found than usually. Dalhousie did not turn up as many Barrow's Goldeneye as in the last two years. The thermal plant has not been operating so that less open water was available. Good counts of ducks were 177 Greater Scaup at St. Andrews, 309 Oldsquaw at Cape Tormentine, and 109 Common Mergansers in the open water below the Mactaquac dam. The Eastport-Campobello count did not coincide with one of the big concentrations of gulls or alcids in Passamaquoddy Bay this year, though they did record a record 103 Great Cormorants.

Most hawks were relatively scarce, though Sackville had 25 Rough-legs. A single Snowy Owl was recorded, and two other counts had them during count period. Barred Owls seem to have staged a minor flight, five being seen without any special effort to locate them. Two additional areas reported Barred Owls during count period.



Hairy Woodpeckers were above normal numbers while Downies were near normal. An average number of Gray Jays was about, but the Blue Jay was recorded in higher numbers than ever before. The same was reported for count totals in the state of Maine where the abundance of Blue Jays was very pronounced (Maine Nature, Jan. 1973). Since 1967 our counts have shown a great increase of wintering Blue Jays. Ravens too were in record numbers this year while Crows were average, or a bit below.

Black-capped Chickadees were in higher numbers than usual, as they were in Maine also (ibid.), but Boreal Chickadees were very low. The big fall flight of Red-breasted Nuthatches benefited only those counts where there were good cone crops, especially Lepreau and Eastport-Campobello. Most areas had few of them but the total of 79 was much above the 12 found a year ago. The White-breasted species was at an average level but Brown Creepers were scarce, only 5 being seen. Golden-crowned Kinglets were also rather scarce.

Few Robins were found, with no more than 4 on any one count. A small flight of Bohemian Waxwings was recorded in six areas, though only two had them on count day. That makes four out of the last five winters the counts have recorded them. Northern Shrikes were widespread, in the highest numbers since 1965. Both Starlings and House Sparrows were in low numbers overall though I hesitate to suggest whether this is a real phenomenon or some sampling accident.

Blackbirds were recorded in average numbers. In northern N.B. these included a Rusty Blackbird at Shippegan Island, Grackles at Dalhousie and Kouchibouguac, and Cowbirds at Nictau, Plaster Rock, Perth-Andover (count period) and Newcastle-Chatham.

Had cone crops been better we might have had more finches, as Maine did. But only Pine Grosbeaks were high, though not exceptionally so. Evening Grosbeaks were average. The crossbills and small finches were all in low numbers though counts of a few dozen redpolls, siskins and goldfinches were recorded in a couple of areas each.

Junco numbers were at the same level as during 1969-71, which is low compared to the 1961-68 figures. Tree Sparrows and Song Sparrows were average, while Fox Sparrows were low and White-throats high, mainly because of the good counts at Saint John, Fredericton and Hampton. Snow Buntings were in below average numbers overall, though there were three counts of 200 or more.

The data that follows, on the individual counts should reveal other interesting patterns. The areas are listed from north to south, first inland ones and then coastal localities. - - - David Christio.

Observations from the period Dec. 1 to Mar. 15  
should be sent to the Museum by Mar. 20 for inclusion  
in the nature news section of the next N.B. Naturalist.

CHRISTMAS COUNTS - DEC. 16, 1972 to JAN. 1, 1973

# - Species recorded for the first time on a New Brunswick Count.

\* - Record high count for the province.

NICTAU - RILEY BROOK - Dec. 30; 8 a.m. to 4 p.m.; sunny; temp. 30°; Ground: snow-covered, ice. 6 observers in 2 parties, 4 at feeders. Total party-hours, 16; total party-miles, 40 (2 on foot, 38 by car). Ruffed Grouse, 1; Hairy Woodpecker, 5; Downy Woodpecker, 9; Gray Jay, 14; Blue Jay, 32; Common Raven, 9; Black-capped Chickadee, 21; Boreal Chickadee, 18; White-breasted Nuthatch, 4; Brown Thrasher, 1; Northern Shrike, 1; Starling, 2; House Sparrow, 76; Brown-headed Cowbird, 4; Evening Grosbeak, 3; Common Redpoll, 3; Snow Bunting, 20. Total: 17 species, 225 birds. (Seen in count period: Pileated Woodpecker). Alex Fraser, Joan Fraser, Bill Miller, Bill Miller III, Wilma Miller (compiler), Blake Sutherland.

PLASTER ROCK - Dec. 28; 10 a.m. to 4:30 p.m.; mostly sunny; temp.: 25°; wind: 1; 27-in. snow cover. 4 observers in 1 party. Total party-hours, 6½; total party-miles, 120½ (1½ on foot, 119 by car). Sparrow Hawk, 2; Hairy Woodpecker, 4; Downy Woodpecker, 2; Gray Jay, 25; Blue Jay, 51; Common Raven, 79; Common Crow, 21; Black-capped Chickadee, 85; Boreal Chickadee, 7; Starling, 77; House Sparrow, 448; Brown-headed Cowbird, 8;

Evening Grosbeak, 8; Pine Grosbeak, 9; Common Redpoll, 10; Slate-coloured Junco, 2; Tree Sparrow, 16; White-throated Sparrow, 3. Total: 18 species, 957 birds. (Seen in count period: Barred Owl). Mrs. Wendell Crawford, Mrs. Maurice Dionne, Mrs. Stephen Pabatch (compiler), Mrs. Harold Skinner.

GRAND FALLS - Dec. 30; 9 a.m. to 5 p.m.; Clear, becoming overcast 11 a.m.; temp.: -20° to -5°; wind: nil to light; Ground: snow-covered, 2-3 ft.; St. John River open at powerhouse, a few open stretches 2-3 mi. below powerhouse, remainder frozen completely. 2 observers in 1 party. Total party-hours, 8 (2 on foot, 6 by car); total party-miles, 75 (2 on foot, 73 by car).

Black Duck, 12; Common Goldeneye, 54; Common Merganser, 15; Rock Dove, 31; Hairy Woodpecker, 1; Downy Woodpecker, 1; Gray Jay, 1; Blue Jay, 12; Common Raven, 5; Common Crow, 10; Black-capped Chickadee, 15; Northern Shrike, 1; Starling, 26; House Sparrow, 63; Song Sparrow, 1. Total: 15 species, 248 birds. Fred Johnston, Darrell A. Kitchen (compiler).

IRISH-ANDOVER - Dec. 30; 8 a.m. to 4.30 p.m.; cloudy; temp.: 15° to 20°; wind: W, 5-10 mph; 2 ft. snow, first water open. 1 observer. Total party-hours, 8 $\frac{1}{2}$  (3 on foot, 5 $\frac{1}{2}$  by car); total party-miles, 46 (1 on foot, 45 by car). Common Merganser, 2; Rock Dove, 12; Hairy Woodpecker, 3; Downy Woodpecker, 1; Gray Jay, 1; Blue Jay, 27; Common Raven, 23; Common Crow, 48; Black-capped Chickadee, 15; Boreal Chickadee, 7; Starling, 10; House Sparrow, 12; Pine Grosbeak, 23; Tree Sparrow, 1; Snow Bunting, 200. Total: 15 species, 385 birds. (Seen in count period: Ring-necked Pheasant, Bohemian Wren, Brown-headed Cowbird). Murray Watters (compiler).

BLACKVILLE - Dec. 30; 10 a.m. to 7 p.m.; sunny & cold; temp.: 2°; wind: nil; 3 ft. snow, ground full of water. 2 observers in 1 party. Total party-hours, 8 (3 on foot, 5 by car); total party-miles, 27 (3 on foot, 24 by car).

Ruffed Grouse, 2; Rock Dove, 1; Pileated Woodpecker, 1; Gray Jay, 3; Blue Jay, 4; Common Raven, 2; Black-capped Chickadee, 3; Boreal Chickadee, 1; House Sparrow, 3; Pine Grosbeak, 6; Snow Bunting, 2. Total: 11 species, 28 birds. Norman S. Stewart (compiler), Royce T. Stewart.

BARTLAND - Dec. 23; 8 a.m. to 3 p.m.; overcast; temp.: 21° to 31°; wind: nil. Deep snow 2 $\frac{1}{2}$  - 3 $\frac{1}{2}$  ft.; water frozen except for small open areas. 2 observers in 2 parties; 1 at feeder. Total party-hours, 8 (7 on foot, 1 by car); total party-miles 30 $\frac{1}{2}$  (6 $\frac{1}{2}$  on foot, 24 by car).

Black Duck, 18; Common Goldeneye, 6; Ring-necked Pheasant, 2; Rock Dove, 81; Hairy Woodpecker, 14; Downy Woodpecker, 6; Blue Jay, 37; Common Raven, 165; Common Crow, 12; Black-capped Chickadee, 52; Boreal Chickadee, 1; Red-breasted Nuthatch, 2; Starling, 19; House Sparrow, 26; Common Grackle, 3; Brown-headed Cowbird, 10; Evening Grosbeak, 34; Pine Grosbeak, 4; Common Redpoll, 1; Slate-coloured Junco, 1; Tree Sparrow, 36. Total: 21 species, 530 birds. (Seen in count period: Gray Jay). Mrs. Eva Letson, Donald Kimball, Michael Rigby (compiler).

WOODSTOCK - Dec. 27; 9 a.m. to 4.30 p.m.; continuous snow (4" accumulation); temp.: 27°; wind: calm. Very little open water; about 3 feet snow on ground. 8 observers in 2 parties; 12 at 10 feeders. Total party-hours, 13 (1 $\frac{1}{2}$  on foot, 11 $\frac{1}{2}$  by car); total party-miles 210 (3 on foot, 207 by car).

Ring-necked Pheasant, 3; Rock Dove, 194; Hairy Woodpecker, 6; Downy Woodpecker, 6; Gray Jay, 1; Blue Jay, 97; Common Raven, 76; Common Crow, 27; Black-capped Chickadee, 33; Boreal Chickadee, 1; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 1; Northern Shrike, 1; Starling, 83; House Sparrow, 344; Common Grackle, 1; Brown-headed Cowbird, 3; Evening Grosbeak, 52; Purple Finch, 1; Pine Grosbeak, 67; Common Redpoll, 23; Slate-coloured Junco, 2; Tree Sparrow, 9; Song Sparrow, 1. Total: 24 species, 1036 birds. (Seen in count period: Rough-legged Hawk, Ruffed Grouse). Mr. & Mrs. Dan Bernard, Mrs. A.E. Connell, Mrs. David Fry, Mrs. Marjorie Gray, Ken Homer, Stephen Homer, Mrs. W. Jones, Donnie Kimball, Mrs. Charles MacDonald, Mrs. Nixon, Dr. & Mrs. Olmstead, Mike Rigby, Jane Speer (compiler), Mrs. Robert Speer, Robert John Speer, Mrs. Cecil Stewart, Mrs. M. Denton, Mrs. Marion Webb.

HALEWIC - Dec. 30; 8 a.m. to 4.30 p.m. High "snow clouds", no clear sun; temp.: -10° to 10°; wind: nil; 2 ft. snow in fields, water frozen excepting rapids. 7 observers in 3 parties, 2 at feeders. Total party-hours, 20 (6 on foot, 14 by car); total party miles, 226 (6 on foot, 220 by car).

Black Duck, 2; Rock Dove, 36; Barred Owl, 2 $\frac{1}{2}$ ; Pileated Woodpecker, 1; Hairy Woodpecker, 10; Downy Woodpecker, 2; woodpecker sp., 2; Gray Jay, 6; Blue Jay, 161; Common Raven, 80; Common Crow, 6; Black-capped Chickadee, 106; Boreal Chickadee, 4; Red-breasted Nuthatch, 1; Northern Shrike, 5; Starling, 18; House Sparrow, 330; Brown-headed Cowbird, 5; Pine Grosbeak, 38; Common Redpoll, 30; Tree Sparrow, 11. Total: 20 species, 856 birds. (Seen in count period: Grosbeak, Common Grackle, Evening Grosbeak, Slate-coloured Junco, Snow Bunting). Ford Alward (compiler), Jean Alward, David & Frederick Oivan, Cal Bartley, Wayne Parent, Robert Squires, Dr. & Mrs. W.A. Squires.

MONTAGUE - Dec. 20; 8 a.m. to 5.30 p.m.; clear, cold; temp.: 0° to 10°; wind: W, 0-3 mph; 24-30 inches of light unsettled snow; considerable snow clinging to softwood trees; open water below Montague Dam and Mouth



of Newrick. 7 observers in 4 parties. Total party-hours, 20 (2 on foot, 18 by car); total party-miles, 203 (7 on foot, 196 by car).

Common Goldfinch, 7; Common Merganser, 105; Hawk sp. (Buteo), 1; Bald Eagle, 2; Ruffed Grouse, 6; Great Black-backed Gull, 4; Rock Dove, 98; Hairy Woodpecker, 3; Downy Woodpecker, 1; Gray Jay, 2; Blue Jay, 112; Com. Raven, 16; Com. Crow, 2; Black-capped Chickadee, 37; Boreal Chickadee, 2; Golden-crowned Kinglet, 1; Northern Shrike, 3; Starling, 4; House Sparrow, 159; Rusty Blackbird, 1; Com. Grackle, 1; Pine Grosbeak, 65; Com. Redpoll, 70; Tree Sparrow, 11; Snow Bunting, 28. Total: 25 species, 745 birds. (Seen in count period: Mallard, Black Duck, Rufflehead, Red-tailed Hawk, Robin, Song Sparrow.) Ford Alward, Stephen Clayden, Henrik Deichmann (compiler), Darrell Kitchen, Edgar Pelger, Bettie Moore, Beverly Schneider.

Fredericton - Dec. 26; 8 a.m. to 4:30 p.m. Sunny, mild; temp. 6° to 21°; wind E, 5 mph. 3 feet snow in woods; 98% water frozen. 29 observers in 15 parties plus 12 at feeders. Total party-hours, 60½ (28½ on foot, 32 by car); tot. party-miles, 316 (50½ on foot, 265½ by car).

Com. Goldfinch, 1; Rough-legged Hawk, 1; Ruffed Grouse, 6; Ring-necked Pheasant, 9; Rock Dove, 628; Pileated Woodpecker, 1; Hairy Woodpecker, 30; Downy Woodpecker, 33; Gray Jay, 8; Blue Jay, 261; Com. Raven, 158; Com. Crow, 65; Black-capped Chickadee, 330; Boreal Chickadee, 25; White-breasted Nuthatch, 6; Red-breasted Nuthatch, 10; Nuthatch sp., 1; Brown Creeper, 1; Robin, 2; Golden-crowned Kinglet, 22; Ruby-crowned Kinglet, 1; Kinglet sp., 15; Bohemian Waxwing, 12; Northern Shrike, 2; Starling, 610; House Sparrow, 1297; Red-winged Blackbird, 7; Com. Grackle, 9; Evening Grosbeak, 51; Pine Grosbeak, 42; Com. Redpoll, 7; Am. Goldfinch, 28; White-winged Crossbill, 6; finch sp., 100; Slate-coloured Junco, 6; junco sp., 1; Tree Sparrow, 72; White-throated Sparrow, 10; Song Sparrow, 2; Snow Bunting, 3; Total: 36 species, 3879 birds. (Seen in count period: Black Duck, Com. Merganser, Sharp-shinned Hawk, Bald Eagle, E. Phoebe.) E. Partlett, E. Bauer, W. Bauer, C.R. Clayden, S. Clayden, A.A. Dean (compiler), E. Dean, L. Dean, H. Deichmann, M. Deichmann, P. Doull, D. Fowler, E. Fowler, H. Hathaway, C. Jones, W. Knight, Mrs. W.R.L. McNeill, A. Morris, M. Moore, Miss E. Moore, L. Noble, Mrs. J. Noble, Mrs. E. Schneider, M. Schneider, Mrs. H. Squires, W.A. Squires, R. Stoeck, Mrs. D. Varty, I.W. Varty.

Jessop - Dec. 23; 8:30 am to 6 pm. Fine, but overcast; temp. 22°; wind calm. Snow cover 8-12"; very little open water. 12 observers in 4 parties; 1 at feeder. Total party-hours, 25 (5 on foot, 20 by car); tot. party-miles, 217 (9 on foot, 208 by car).

Sharp-shinned Hawk, 2; Pigeon Hawk, 1; Ruffed Grouse, 8; S. Wood Owl, 1; Hairy Woodpecker, 6; Downy Woodpecker, 5; Blue Jay, 190; Com. Raven, 28; Com. Crow, 4; Black-capped Chickadee, 53; Boreal Chickadee, 1; White-breasted Nuthatch, 5; Red-breasted Nuthatch, 3; Brown Creeper, 1; Golden-crowned Kinglet, 10; N. Shrike, 1; Starling, 3; House Sparrow, 362; Rusty Blackbird, 1; Com. Grackle, 1; Brown-headed Cowbird, 2; Pine Grosbeak, 83; Com. Redpoll, 13; Am. Goldfinch, 1; Red Crossbill, 3; Slate-coloured Junco, 1; Tree Sparrow, 27. Total: 27 species, 816 birds. (Seen in count period: Rough-legged Hawk, Robin.) Rev. & Mrs. C.E. Cragg, A.A. Dean, Ewen Dean, Lemmy Dean; K.E. Deichmann; Mark Deichmann, Edith Inch, Cliff Jones, Melvin Moore, Bettie Moore (compiler), Dr. & Mrs. W.A. Squires.

Cambridge-Newton - Dec. 28; 8:15 am to 4:45 pm. Cloudy with flurries in a.m., partly cloudy in p.m.; temp. 22°; wind NW, 5-10 mph. 10" snow with crust; trees covered with ice and snow; lakes frozen, most brooks frozen. 7 observers in 3 parties; 10 at feeders. Total party-hours, 13 (5½ on foot, 7½ by car); tot. party-miles, 78 (9 on foot, 69 by car).

Hawk sp., 1; Ruffed Grouse, 3; Barred Owl, 1; Pileated Woodpecker, 1; Hairy Woodpecker, 2; Downy Woodpecker, 1; Gray Jay, 6; Blue Jay, 157; Com. Raven, 24; Com. Crow, 1; Black-capped Chickadee, 78; Boreal Chickadee, 1; Red-breasted Nuthatch, 1; Starling, 11; House Sparrow, 73; Evening Grosbeak, 1; Pine Grosbeak, 22; Am. Goldfinch, 7; Tree Sparrow, 9; Snow Bunting, 40. Total: 20 species, 440 birds. (Seen in count period: Sharp-shinned Hawk, Great Horned Owl, Bohemian Waxwing, N. Shrike.) Mrs. Barry Belyea, Mrs. Harold Belyea, D.G. Carpenter, Mrs. Bruce Chase, Michael Chase, Mrs. Malcolm Gilchrist, Mrs. Stewart Greenwood, Edith Inch (compiler), Stanley Kincaide, Mrs. William McCormackie, Mrs. Arthur Perry, Mrs. B.G. Robinson, Debra Robinson, Mrs. Ernest Sypher, Mrs. William Powell, Mrs. Niven Thorne, Noel Thorne.

Naughton - Dec. 31; 8 am to 5:05 pm. Heavy overcast, intermittent snow throughout day; temp. 9°-22°; wind NW, 5-10 mph. 14"-18" snow cover with light crust; freshwater almost completely frozen. 7 observers in 2 parties; 9 at 8 feeders. Total party-hours, 16 (5 on foot, 11 by car); tot. party-miles, 186 (6 on foot, 180 by car).

Black Duck, 2; Com. Goldfinch, 1; Grosbeak, 1; Rough-legged Hawk, 1; Bald Eagle, 1; Ruffed Grouse, 14; Great Black-backed Gull, 1; Rock Dove, 10; Barred Owl, 1; Hairy Woodpecker, 4; Downy Woodpecker, 5; Horned Lark, 5; Gray Jay, 2; Blue Jay, 72; Com. Raven, 59; Com. Crow, 1; Black-capped Chickadee, 227; Boreal Chickadee, 15; White-breasted Nuthatch, 2; Brown Creeper, 1; Golden-crowned Kinglet, 10; N. Shrike, 2; Starling, 42; House Sparrow, 83; Brown-headed Cowbird, 3; Purple Finch, 1; Pine Grosbeak, 110; Pine Siskin, 32; finch sp., 4; Slate-coloured Junco, 26; Tree Sparrow, 26; White-throated Sparrow, 7; Song Sparrow, 3; Snow Bunting, 99. Total: 33 species, 879 birds. (Seen in count period: Pigeon Hawk, S. Wood Owl, Yellow-bellied Sapsucker, White-crowned Sparrow.)

David Christie, David Clark, Paul Clark, Henry Darling, John Darling, L.T. Darling, Roland Darling, Cecil Johnston, Mrs. P. Kellough, Chris Majka, Mary Majka, Barry Mayhew, Mr. & Mrs. Charles Wilson, Jean Wilson, Jim Wilson (compiler).

Talhouzie - Dec. 20: 8:15 am to 3:35 pm. Clear sky, bright sun; temp.  $-6^{\circ}$ ; wind NNW, 3 mph. 1 ft. snow on ground; 90% ice cover along coast, 100% inland. 2 observers in 2 parties; 1 at feeder. Total party-hours, 9 (3 on foot, 6 by car); tot. party-miles, 93 (13 on foot, 80 by car).  
Com. Goldeneye, 2; Barrow's Goldeneye, 28; goldeneye, sp., 39; Com. Merganser, 2; Pigeon Hawk, 1; Glaucous Gull, 1; Ice Bird Gull, 27; Great Black-backed Gull, 14; Herring Gull, 5; Rock Dove, 16; Hairy Woodpecker, 1; Gray Jay, 1; Blue Jay, 9; Com. Raven, 134; Com. Crow, 8; Black-capped Chickadee, 7; Boreal Chickadee, 3; Robin, 1; W. Shrike, 1; Starling, 10; House Sparrow, 151; Com. Grackle, 1; Pine Grosbeak, 6; Com. Redpoll, 9. Total: 23 species, 477 birds. (Seen in count period: Black Duck, Red-breasted Merganser, Cooted, Sharp-shinned Hawk, Gyrfalcon.) Fr. Jean-Paul Label, Alan Madden (compiler), Miss Elizabeth Matt.

Shippagan Island - Dec. 25: 8 am to 4:30 pm. Sky covered all day; temp.  $15^{\circ}$ ; wind 0-5 mph. Ground covered; 20" snow; water not frozen at south side of island. 3 observers in 1 party. Total party-hours, 8 (2 on foot, 6 by car); tot. party-miles, 107 (2 on foot, 105 by car).

Oldsquaw, 23; Com. Eider, 19; Iceland Gull, 22; Great Black-backed Gull, 121; Herring Gull, 4; Blue Jay, 17; Com. Raven, 6; Com. Crow, 16; Black-capped Chickadee, 3; Boreal Chickadee, 1; Starling, 29; House Sparrow, 20; Rusty Blackbird, 1; Red Crossbill, 4; Inland Longspur, 1; Snow Bunting, 247. Total: 16 species, 536 birds. (Seen in count period: Black Quillnot.) Hilaire Chasson (compiler), Rose-Alina Chasson, Arnel Guignard.

Newcastle-Clitham - Dec. 23: 8 am to 4 pm. Sunny; temp.  $30^{\circ}$ - $32^{\circ}$ ; wind 1-3 mph. Snow cover 3-4 feet; open water at thermal plant and in yard of ship. 4 observers in 1 party. Total party-hours, 6 (1 on foot, 5 by car); total party-miles, 50 (1 on foot, 49 by car).  
Com. Merganser, 3; Glaucous Gull, 2; Great Black-backed Gull, 200; Herring Gull, 200; Rock Dove, 110; Downy Woodpecker, 1; Blue Jay, 14; Com. Raven, 120; Com. Crow, 4; Black-capped Chickadee, 7; Starling, 40; House Sparrow, 1100; Brown-headed Cowbird, 2; Pine Grosbeak, 2. Total: 14 species, 1805 birds. John Bethall (compiler), Earl Perry, Harry Walker, Ian Walker.

Kouchibouguen National Park - Dec. 20: 7:30 am to 5:30 pm. Sunny all day; temp.  $0^{\circ}$ - $8^{\circ}$ ; wind NW, 5-10 mph. 2 observers in 1 party. Total party-hours, 9 (1 on foot, 8 by car); tot. party-miles, 130 (3 on foot, 127 by car).  
Marsh Hawk, 1 (no details); Ruffed Grouse, 4; Great Black-backed Gull, 23; Herring Gull, 35; Hairy Woodpecker, 1; Downy Woodpecker, 1; Blue Jay, 12; Com. Raven, 112; Com. Crow, 2; Black-capped Chickadee, 14; Starling, 6; House Sparrow, 50; Com. Grackle, 1 (injured); Pine Grosbeak, 21; Snow Bunting, 34. Total: 15 species, 317 birds. (Seen in count period: W. Shrike.) Alain Dufresne (compiler), Alexander G. McLean.

Cape Tormentine - Dec. 20: 0730-1615 hours. Cloudy with sunny intervals. Intermittent snow showers in a.m.; temp.  $15^{\circ}$  to  $20^{\circ}$ ; wind NE 5-10 decreasing to light NW by noon. 2-3 inches fresh snow cover over 5-6 inches crusted snow; freshwater frozen; salt water frozen with only small open areas between large ice flows. 9 observers in 4-6 parties. Total party-hours, 31 (15 on foot, 15 by car, 1 by snowmobile); tot. party-miles, 167 (22 on foot, 144 by car, 1 by snowmobile).

Canada Goose, 1; Com. Goldeneye, 50; Oldsquaw, 309; Com. Eider, 13; Hooded Merganser, 1; Common Merganser, 14; waterfowl sp., 42; Cooted, 1; Red-tailed Hawk, 1; Bough-legged Hawk, 1; Marsh Hawk, 1; Glaucous Gull, 2; Iceland Gull, 42; Great Black-backed Gull, 28; Herring Gull, 35; Ring-billed Gull, 1; Rock Dove, 4; Barred Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker, 4; Black-backed Three-toed Woodpecker, 1; woodpecker sp., 1; Blue Jay, 41; Common Raven, 29; Com. Crow, 147; Black-capped Chickadee, 41; Boreal Chickadee, 10; Robin, 1; Golden-crowned Kinglet, 3; W. Shrike, 1; Loggerhead Shrike, 1; Starling, 52; Myrtle Warbler, 2; House Sparrow, 132; Red-winged Blackbird, 3; Brown-headed Cowbird, 1; Evening Grosbeak, 3; Pine Grosbeak, 29; Com. Redpoll, 20; Am. Goldfinch, 1; Slate-coloured Junco, 48; Tree Sparrow, 3; White-throated Sparrow, 1; Song Sparrow, 2; Snow Bunting, 108; songbirds sp., 43. Total: 43 species, 1286 birds. Bill Barlow, Paul Bogaard, Gordon Burns, Don Cameron, Gary Fesley, Ron Hounsell, Barry Hinson, Al Smith (compiler), Stuart Tingloy.

Moncton - Dec. 17: 8 am to 5 pm. Overcast; temp.  $0^{\circ}$ - $9^{\circ}$ ; wind 28-38 mph. 12-14" snow cover. 16 observers in 12 parties; 17 at 13 feeders. Total party-hours, 47 (21 on foot, 26 by car); tot. party-miles, 217 (26 on foot, 191 by car).

Mallard, 1; Black Duck, 37; Com. Merganser, 18; Cooted, 1; hawk sp. (small Accipiter), 1; Ruffed Grouse, 1; Ring-necked Pheasant, 7; Glaucous Gull, 2; Iceland Gull, 32; Great Black-backed Gull, 270; Herring Gull, 420; Rock Dove, 243; Barred Owl, 1; Hairy Woodpecker, 5; Downy Woodpecker, 8; Horned Lark, 10; Gray Jay, 3; Blue Jay, 39; Common Raven, 179; Com. Crow, 91; Black-capped Chickadee, 107; Boreal Chickadee, 5; White-breasted Nuthatch, 4; Brown Creeper, 1; Mockingbird, 1; Robin, 1; Golden-crowned Kinglet, 3; W. Shrike, 1; Starling, 412; House Sparrow, 663; Com. Grackle, 2; Brown-headed Cowbird, 16; Evening Grosbeak, 132; Purple Finch, 3; Pine Grosbeak, 97; Common Redpoll, 2; Pine Siskin, 4; Slate-coloured Junco, 17; Tree Sparrow, 20; White-throated Sparrow, 2; Fox Sparrow, 1; Song Sparrow, 13; Snow Bunting, 120. Total: 43 species, 2996 birds. (Seen in count period: Canada Goose,



Pigeon Hawk, Snowy Owl, Black-backed Three-toed Woodpecker, Red-winged Blackbird, Am. Goldfinch.) Mr. & Mrs. Hamilton Baird, Mrs. Ross Brown, Doreen Carter, David Christie, Russell Conner, Donald Cornier, Mr. & Mrs. Henry Cornier, Sylvio Cornier, Dr. & Mrs. Arthur Deben, Mrs. Gordon Harris, Harris Hagar, Marguerite Hope, Mr. & Mrs. Wes Kaffner, George Landry, Fred Lloyd, Mark Majka, Mary Majka, Dr. M. Majka, Leo Martin, Mr. & Mrs. Winston Prince, Madeline Prosser, Mr. & Mrs. F.B. Proude, Mr. & Mrs. W.J. Quartermain, Eric Tall, Doug Whitman (compiler), Loris Whitman.

Sackville - Dec.19: 0720-1620 hours. Light overcast, sunny intervals by mid-day; temp. 0°-20°; wind light NW in a.m., calm in p.m. 6-8 inches crusted snow cover; most fresh water frozen, salt water clogged with ice flows. 10 observers in 7-8 parties, plus 8 feeder reports. Total party-hours, 52½ (24 on foot, 28½ by car, 2 by snowmobile); total party-miles, 306 (242½ by car, 4½ on foot, 12 by snowmobile).

Black Duck, 16; Com. Merganser, 3; Sharp-shinned Hawk, 1; Red-tailed Hawk, 1; Rough-legged Hawk, 25; Ring-necked Pheasant, 38; Great Black-backed Gull, 61; Herring Gull, 252; Rock Dove, 129; Hairy Woodpecker, 6; Downy Woodpecker, 5; Woodpecker sp., 4; Horned Lark, 23; Gray Jay, 11; Blue Jay, 113; Com. Raven, 218; Com. Crow, 56; Black-capped Chickadee, 153; Boreal Chickadee, 8; White-breasted Nuthatch, 1; Robin, 2; Golden-crowned Kinglet, 2; Bohemian Wren, 12; N. Shrike, 2; Starling, 216; House Sparrow, 963; Rusty Blackbird, 2; Com. Grackle, 28; Brown-headed Cowbird, 13; Evening Grosbeak, 46; Pine Grosbeak, 35; Slate-colored Junco, 3; Tree Sparrow, 11; White-throated Sparrow, 3; Inland Longspur, 11; Snow Bunting, 224. Songbirds spp., 12. Total: 35 species, 2709 birds. (Seen in count period: Great Blue Heron, Snowy Owl, Purple Finch.) Bill Barrow, Paul Boggart, Mrs. H. Burke, Gordon Burns, Mrs. Roger Calkins, Ian Cameron, Mrs. John Clark, Mrs. J.C. Greenlake, Ron Hunsell, Barry Hugheson, Reid McManus, Mrs. Don McPhail, Ted Palford, Mrs. A.J. Smith, Al Smith (compiler), H. L. Smith, Stuart Tingley, Mrs. N.A. Weldon.

Randy National Park - Dec.17: 7:30 a.m. to 3:30 p.m. Clear; temp. 0°; wind gusting to 40 mph. 3"-5" snow cover; still water frozen, running open. 3 observers in 1 party; 1 at feeder. Total party-hours, 8 (5 on foot, 3 by car); tot. party-miles, 90 (12 on foot, 78 by car).

Common Loon, 1; Black Duck, 11; Com. Goldeneye, 1; Sparrow Hawk, 1; Herring Gull, 27; Gray Jay, 1; Blue Jay, 2; Com. Raven, 7; Com. Crow, 4; Black-capped Chickadee, 2; Robin, 4; Starling, 10; House Sparrow, 25; Brown-headed Cowbird, 2; Evening Grosbeak, 2; Slate-colored Junco, 3; Tree Sparrow, 1. Total: 17 species, 104 birds. (Seen in count period: Downy Woodpecker, Red-breasted Nuthatch, N. Shrike, Purple Finch.) Bruce Bradbury, Doris Bitt, Richard Johnson, John MacFarlane (compiler).

St. Martins - Dec.26: 8:30 am to 4:30 pm. Overcast; temp. 24°; wind NE 5 mph. About 6 inches crusted snow; brooks frozen. 1 Observer in 1 party; 1 at feeder. Total party-hours, 7 (3½ on foot, 3½ by car); tot. party-miles, 30 (6 on foot, 24 by car).

Mallard, 2; Black Duck, 30; Com. Goldeneye, 2; Barrow's Goldeneye, 1; Bufflehead, 1; Com. Merganser, 4; Herring Gull, 14; Downy Woodpecker, 1; Gray Jay, 2; Blue Jay, 20; Com. Raven, 10; Com. Crow, 5; Black-capped Chickadee, 20; Boreal Chickadee, 10; Red-breasted Nuthatch, 2; Robin, 2; N. Shrike, 2; Com. Grackle, 1; Brown-headed Cowbird, 30; Pine Grosbeak, 10; Slate-colored Junco, 45; Tree Sparrow, 10; White-throated Sparrow, 1. Total: 23 species, 225 birds. (Seen in count period: Sharp-shinned Hawk, Ruffed Grouse, Hairy Woodpecker, Starling, House Sparrow, Evening Grosbeak, Com. Redpoll, Hawk sp.) James M. Bradshaw (compiler; assisted by Mrs. J.M. Bradshaw), Mrs. Dorothy Headley.

Saint John - Dec.30: 7:30 am to 5 pm. Clear a.m., overcast p.m.; temp. -1° to 15°; wind NW 0-5 mph. 6"-9" crusted snow; almost all freshwater frozen; harbour & bay open. 17 observers in 10 parties; 20 at feeders. Total party-hours, 52½ (30½ on foot, 22 by car); tot. party-miles, 287 (28 on foot, 259 by car).

Great Cormorant, 1; Double-crested Cormorant, 1; Mallard, 7; Black Duck, 246; Green-winged Teal, 1; Greater Scaup, 4; Com. Goldeneye, 120; Barrow's Goldeneye, 1; Bufflehead, 15; White-winged Scoter, 2; Com. Merganser, 59; Red-breasted Merganser, 26; Red-tailed Hawk, 1; Bald Eagle, 1; Gyrfalcon, 1; Pigeon Hawk, 1; Ruffed Grouse, 2; Com. Snipe, 1; Purple Sandpiper, 3; Glaucous Gull, 6; Iceland Gull, 29; Great Black-backed Gull, 943; Herring Gull, 3700; Ring-billed Gull, 2; Black-headed Gull, 2; Black-legged Kittiwake, 1; Rock Dove, 393; Snowy Owl, 1; Hairy Woodpecker, 7; Downy Woodpecker, 26; Woodpecker sp., 3; Horned Lark, 15; Gray Jay, 4; Blue Jay, 62; Com. Raven, 146; Com. Crow, 151; Black-capped Chickadee, 182; Boreal Chickadee, 11; White-breasted Nuthatch, 2; Red-breasted Nuthatch, 4; Brown Creeper, 1; Robin, 4; Golden-crowned Kinglet, 6; Cedar Wren, 1; N. Shrike, 1; Starling, 1024; House Sparrow, 639; Red-winged Blackbird, 2; Rusty Blackbird, 1; Com. Grackle, 5; Brown-headed Cowbird, 75; Blackbird sp., 1; Evening Grosbeak, 61; Purple Finch, 4; Pine Grosbeak, 53; Pine Siskin, 1; Am. Goldfinch, 5; Red Crossbill, 3; Rufous-sided Towhee, 2; Slate-colored Junco, 77; Tree Sparrow, 56; White-throated Sparrow, 31; Fox Sparrow, 2; Swamp Sparrow, 1; Song Sparrow, 9; Snow Bunting, 40; Finch sp., 5. Total: 64 species, 8312 birds. (Seen in count period: Pile-billed Grebe, Sharp-shinned Hawk, Sparrow Hawk, Mourning Dove, Mockingbird, Bohemian Wren, Baltimore Oriole, Dickcissel.) Mrs. C.H. Cameron, Mrs. Smith Cathline, David Christie (compiler), Florence Christie, David Clark, Shirley Colquhoun, Mrs. E.J. Cragg, Jim Dryden, Marjorie Duffy, David Ekstrom, Joyce Golden, Jean Gorham, Stan Gorham, Mrs. A.R. Goucher, Andrew Grant, Rory Grant, Grace Hayes, Ron Hughes, Mrs. G.L. Hunter, Cecil Johnston, Doris Johnston, Donald McAlpine, Mrs. Ken Melvin, Bill O'Brien, Mrs. Don Patterson, Joan Pearce, Ron Pearce, Mrs. George Hensley, Gordon Redstone, Mrs. H.C. Rogers, Mary Rose, Marion Sherwood, David Smith, Reg Smith, Gerry Spencer, Jim Wilson.

St. John's - Dec. 26: 7:40 am to 5:15 pm. Cloudy; temp. 12°-25°; wind NE 0-5 mph. 6"-8" snow with a heavy crust; trees glazed with ice; non-tidal waters frozen. 10 observers in 3 parties. Total party-hours, 21½ (10½ on foot, 11 by car); total party-miles, 216 (5 on foot, 211 by car).

Common Loon, 12; Red-necked Grebe, 23; Horned Grebe, 22; Great Cormorant, 11; Mallard, 3; Black Duck, 36; Com. Goldeneye, 83; Bufflehead, 104; Oldsquaw, 7; Com. Eider, 64; Surf Scoter, 2; Com. Scoter, 2; Red-breasted Merganser, 5; duck sp., 60; B. d. Eagle, 1; hawk sp., 1; Ruffed Grouse, 1; Purple Sandpiper, 127; Glaucous Gull, 1; Iceland Gull, 2; Great Black-backed Gull, 226; Herring Gull, 873; Ring-billed Gull, 3; Black-legged Kittiwake, 30; Razorbill, 15; Thick-billed Murre, 3; Dovekie, 2; Black Guillemot, 3; alcid sp., 5; Rock Dove, 8; Barred Owl, 1; Red-headed Woodpecker, 144; Hairy Woodpecker, 1; Downy Woodpecker, 2; woodpecker sp., 1; Gray Jay, 15; Blue Jay, 5; Com. Raven, 134; Com. Crow, 134; Black-capped Chickadee, 58; Boreal Chickadee, 9; Red-breasted Nuthatch, 23; Robin, 1; Golden-crowned Kinglet, 10; W. Shrike, 4; Starling, 51; House Sparrow, 31; Red-winged Blackbird, 1; Evening Grosbeak, 40; Pine Grosbeak, 3; Com. Redpoll, 8; Pine Siskin, 2; Am. Goldfinch, 3; Slate-coloured Junco, 3; Tree Sparrow, 27; Fox Sparrow, 1; Song Sparrow, 1; Snow Bunting, 69. Total: 55 species, 2374 birds. (Seen in count period: Rough-legged Hawk, White-throated Sparrow.) David Clark, Paul Clark, David Christie (compiler), Jan Dexter, Cecil Johnston, Isabel LeBlanc, Chris Majes, Mark Majes, Dr. M. Majes, Jim Wilson.

Pennfield - Dec. 23: 7:30 am to 4 pm. Cloudy with sunny periods; temp. 20°; wind W light. Ground snow-covered; trees & wires sleet-covered. 2 observers in 1 party. Total party-hours, 8½; tot. party-miles, 20 (by car).

Common Loon, 1; Horned Grebe, 3; Great Cormorant, 4; Bufflehead, 8; Oldsquaw, 81; Com. Eider, 2; Great Black-backed Gull, 5; Herring Gull, 325; Rock Dove, 8; Downy Woodpecker, 1; Blue Jay, 6; Com. Crow, 15; Black-capped Chickadee, 4; Red-breasted Nuthatch, 1; Starling, 38; House Sparrow, 52; Slate-coloured Junco, 3; Tree Sparrow, 8. Total: 18 species, 565 birds. (Seen in count period: Black Duck, W. Shrike, Pine Grosbeak, White-throated Sparrow.) M. C. Morehouse, Mrs. M.C. Morehouse (compiler).

St. Andrews - Dec. 17: 8 am to 4:30 pm. Sunny a.m., overcast & windy p.m.; temp. 9°-16°; wind NW 30 mph. 8"-10" crusty snow; lakes frozen; salt water open. 6 observers in 4 parties; 10 at 8 feeders. Total party-hours, 22½ (2½ on foot, 20 by car); tot. party-miles, 149 (4½ on foot, 144½ by car).

Common Loon, 7; Red-throated Loon, 1; Horned Grebe, 3; Mallard, 2; Black Duck, 60; Greater Scaup, 174; Com. Goldeneye, 29; Bufflehead, 62; Oldsquaw, 10; Com. Eider, 300; White-winged Scoter, 85; Surf Scoter, 45; scoter spp. (including a few Commons), 260; Com. Merganser, 4; Red-breasted Merganser, 6; Osprey, 244; hawk sp., 1; Ruffed Grouse, 3; Purple Sandpiper, 60; Great Black-backed Gull, 49; Herring Gull, 459; Rock Dove, 9; Belted Kingfisher, 1; Hairy Woodpecker, 6; Downy Woodpecker, 6; Gray Jay, 7; Blue Jay, 69; Com. Raven, 5; Com. Crow, 89; Black-capped Chickadee, 94; Boreal Chickadee, 2; White-breasted Nuthatch, 1; Red-breasted Nuthatch, 3; Robin, 4; Water Pipit, 244; Ruby-crowned Kinglet, 2; Kinglet, sp., 5; Bohemian Waxwing, 1; Starling, 54; House Sparrow, 103; Com. Grackle, 11; Brown-headed Cowbird, 12; Evening Grosbeak, 91; Purple Finch, 2; Pine Grosbeak, 16; Pine Siskin, 36; Am. Goldfinch, 2; finch sp., 45; Slate-coloured Junco, 5; Tree Sparrow, 40; Fox Sparrow, 1; Song Sparrow, 11; Snow Bunting, 15. Total: 50 species, 2377 birds. (Seen in count period: Great Cormorant, Sharp-shinned Hawk, Bald Eagle, Ring-necked Pheasant, Barred Owl, Red Crossbill, White-throated Sparrow.) Mrs. Hollis Bartlett, Miss Jacqueline Davis, Mrs. Margaret Goyne, Mr. & Mrs. Donald Johnson, Michelle MacGowrey, Willa MacGowrey (co-compiler), Claude MacFarlane, Georgio Mears, Mrs. Fred Mitter, Wayne Stobo (co-compiler), Thomas Taylor, Mr. & Mrs. David Walker, Mr. & Mrs. Sydney Wyman.

Eastport-Campobello - Dec. 26: 7 am to 4 pm EST. Overcast; temp. 17°-34°; wind E 0-3 mph. 2" snow cover; all salt water and 50% fresh water open. 4 observers in 2 parties; 1 at feeder. Total party-hours, 14 (1 on foot, 13 by car); tot. party-miles, 114 (2 on foot, 112 by car).

Common Loon, 9; Red-necked Grebe, 11; Horned Grebe, 31; Great Cormorant, 103; Black Duck, 159; Com. Goldeneye, 235; Barrow's Goldeneye, 10; Bufflehead, 132; Oldsquaw, 169; Com. Eider, 6; White-winged Scoter, 30; Surf Scoter, 5; Red-breasted Merganser, 20; Red-tailed Hawk, 1; Bald Eagle, 1; Purple Sandpiper, 6; Iceland Gull, 2; Great Black-backed Gull, 498; Herring Gull, 1962; Ring-billed Gull, 4; Bonaparte's Gull, 1; Black-legged Kittiwake, 240; Razorbill, 9; Thick-billed Murre, 3; Dovekie, 2; Black Guillemot, 2; Hairy Woodpecker, 1; Downy Woodpecker, 3; Blue Jay, 3; Com. Raven, 8; Com. Crow, 151; Black-capped Chickadee, 61; Red-breasted Nuthatch, 28; Robin, 1; Starling, 134; House Sparrow, 165; Brown-headed Cowbird, 35; Evening Grosbeak, 10; Pine Grosbeak, 24; Am. Goldfinch, 36; Red Crossbill, 4; Slate-coloured Junco, 4; Tree Sparrow, 14; White-throated Sparrow, 3; Fox Sparrow, 1; Song Sparrow, 1; Snow Bunting, 18. Total: 47 species, 4356 birds. (Seen in count period: Red-throated Loon, Sparrow Hawk, W. Shrike.) Charles Dorchester, Mary Dorchester, Edward Sawyer, William Townsend (compiler).

**BULLETIN BOARD** - Saint John Naturalists' Club: N.E. Museum at 8 pm, Mar. 7 & Apr. 11; Fredericton Field Naturalists' Club: Room 309, Forestry Bldg, U.N.B. at 8 p.m., Mar. 8 & Apr. 12; Moncton Naturalists' Club: Science Bldg, Université de Moncton, at 8 pm, Feb. 28.

N. E. Federation of Naturalists - Membership: \$2 per individual/family, \$1 per student (to age 18). Memberships should be sent to Dr. C.E. Tull, Dept. de Biologie, Université de Moncton, Moncton; correspondence on other matters to the Federation, c/o N.E. Museum, 277 Douglas Avenue, Saint John, N. B.



## New Brunswick Federation of Naturalists

## Fédération des Naturalistes du Nouveau-Brunswick

- \* The Federation represents local naturalist societies and individual naturalists throughout New Brunswick.
- \* The Federation will publish the "New Brunswick Naturalist" beginning in 1973. The magazine will include nature observations from across the province and will have articles on nature and man's impact on it. Members of the Federation receive this publication.
- \* The Federation will encourage co-operation amongst the naturalist societies and individual naturalists of the province. An annual general meeting will be held as well as regional field trips. Special meetings will be held in some of the centres which do not have local naturalist societies.
- \* The Federation will provide naturalists with a means of voicing their concerns about our natural heritage.

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