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N. B. Naturalist

Le Naturaliste du N.-B.





New Brunswick Federation of Naturalists / La Fédération des naturalistes du Nouveau-Brunswick

277 avenue Douglas Avenue, Saint John, N.B. E2K 1E5 Canada

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From the Editors

We can now breathe a sigh of relief that we have finally caught up—until the next deadline at least!

Next deadline: June 15 / Date limite prochaine: le 15 juin.

Cecil Johnston, 29 Coronation Avenue, West Saint John, N.B. E2M 3Y9

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Fundy's Endangered Right Whales

Brian Dalzell

It is probably safe to say there is no more popular endangered species of animal in New Brunswick than the Right Whale (*Eubalena glacialis*). Each year between July and September a good portion of the western North Atlantic population of Right Whales arrives to feed in the plankton-rich depths of the Bay of Fundy near Grand Manan Island.

More and more environmentally-conscious "eco-tourists" are making the journey here each summer to see these fascinating denizens of the deep. Having made the pilgrimage a couple of times myself, I can attest to the sense of awe and wonder they engender.

It is almost spell-binding to watch as a mother and her calf cavort at the surface, or a male attempts to mate with a female. The thrill one feels sharing a moment with these gentle giants is hard to describe, but I have seen cold, wet, seasick "landlubbers" magically come alive at the first excited cry of "whales!"

There is probably no one in New Brunswick, or the Maritimes for that matter, who has a more intimate knowledge of the behaviour of these leviathans than Laurie Murison, manager of the Grand Manan Whale and Seabird Research Station. She wears another cap as well, that of head naturalist for Ocean Search, an island-based tour company that specializes in whale-watching trips.

Murison arrived here in 1982 as a student and eventually completed a Master's degree on the Right Whale. Along the way she admits performing "tons" of dissections on Harbour Porpoise (at least 200). Originally from Saskatchewan, she now lives year-round on Grand Manan.

She has seen Right Whales as early as the end of June. Many scouts arrive in July, but the majority do not come into the outer Bay of Fundy until August. Mostly these are females and their calves, as well as young whales that have been weaned from their mothers. Although they come and go at random, they are seldom seen elsewhere at this season, and thus the area is known as the "nursery grounds".

The whales usually stay in an area known as the Grand Manan Basin, which is defined by the 100-fathom (180-m) line between Grand Manan and Brier Island. They are capable of diving right to the bottom where the planktonic crustaceans they feed on stay during the day. Murison has even seen them surface with mud on their heads!

In fact, they feed almost constantly while in the basin, even at night when the copepods (their main food) come closer to the surface. Copepods are tiny shrimp-like creatures about the size of a grain of rice. The whales are capable of consuming several tons at a time.

This food is concentrated in the basin by a counter-clockwise gyre that moves from the Gulf of Maine along the coast of Nova Scotia to the middle of the Bay of Fundy and then down the eastern side of Grand Manan into the basin. Right Whales swim steadily through patches of plankton with their cavernous mouths open straining the water through plates on each side known as baleen. This manner of feeding is often called skimming.

Group size is difficult to assess in whales, but as many as fifty have been identified at one time in the outer bay. A total population estimate is even harder to come by, but Murison feels that 350 individuals would be the upper limit for the western North Atlantic population. Other Right Whales exist in the North Pacific (less than 100) and in the southern oceans around Australia, New Zealand, South America and South Africa. This group moves to the Antarctic to feed during the austral summer, and may number as many as 10,000.

Seldom do whale-watchers have to travel more than 15 or 25 km out into the Grand Manan Basin to find Right Whales, such is their affinity for the plankton-rich area. Occasionally they are found closer inshore, just inside the 50-fathom (90-m) line off White Head Island in an area known as the Clarks Ground. Some have been seen north to The Wolves islands, and a few years ago a mother and calf were reported swimming south under the Lubec Bridge between Maine and Campobello!

During the past couple of years modern technology has begun to shed some light on the movement of the whales while they are in the Gulf of Maine. Using satellite transmitters, researchers from the New England Aquarium have tagged perhaps a dozen Right Whales off Grand Manan. The transmitters are about the size of a paper towel tube and are shot into the whale's foot-thick layer of blubber with a crossbow. The tags do not harm them, but so far only about eight of those deployed have been known to function.

Even with this small sample size, important new information on the whales' movements is coming to

light. Murison says they move around a lot, and have been heard from on Browns and Baccaro Banks off southwestern Nova Scotia, as well as at isolated sea mounts off the continental shelf. This has allowed researchers to determine there are two separate aggregations of Right Whales in the Gulf of Maine.



Right Whale drawing © D.R. (Bon) Harriott, from *Whales of the Bay of Fundy* by Tim Beatty, Sunbury Shores Arts & Nature Centre, Inc. 1989.

Tagging has also revealed that when they arrive in the Bay of Fundy, they don't always stay.

Satellite tracking is relatively new and there are a lot of kinks to be worked out. Individual whales are still best identified by the unique pattern of callosities on their heads. Photos can be used to positively identify whales that have travelled hundreds or thousands of kilometres away from the Bay of Fundy. Such was the case last year when two Right Whales turned up off Iceland, where they hadn't been seen in almost 100 years. Part of the population used to move north to feed in the Gulf of St. Lawrence and off Newfoundland and Labrador. Murison believes the two whales in Iceland were responding to "genetic echoes" they may have inherited from this no-longer-existing population. Some of their genes apparently still occur in the Gulf of Maine whales.

Studies of DNA undertaken by students from the Grand Manan Whale and Seabird Research Station in association with the New England Aquarium are also revealing startling new information about the parentage of our Right Whales. Skin samples as small as four grams collected from the whales (don't ask me how) can be used to study their DNA. The results have shown there is relatively little diversity in the population. Because the male DNA is contained in the tail of the sperm, which is shed after fertilization takes place, only the maternal line of DNA is found in the mitochondria of Right Whale cells. Close examination of this maternal DNA reveals that the entire western North Atlantic population of some 350 Right Whales may be descended from as few as two or three females! This is a good indication of just how close to extirpation the Bay of Fundy sub-population came. It might also offer a partial answer to why numbers are still so low, despite protection from whaling since 1937. It may be the biological gene pool is not sufficient to maintain a vigorous population.

Mating activity has been observed throughout the summer in the bay, but the actual insemination may not take place until the whales leave the area late in the year because pregnancy is thought to take about 12 months. Calves are probably born between January and March while the females are in their wintering grounds in offshore waters between the Carolinas and Florida. The males "come and go", according to Murison, and their winter home is still a secret.

The calves are about 4 to 5.5 m long when they are born and mother-calf pairs begin to arrive in the Bay by July. The females are naturally very protective of their young and may only be capable of producing one every four or five years, another reason for the slow growth of the local population. Juveniles may become sexually mature at three to five years of age and mature Right Whales may live to 50 to 60 years, although some researchers believe they could live much longer.

An adult Right Whale can weigh up to 45 tonnes and average lengths are between 10 and 15 m. For the sake of comparison, a mature whale would be about the size and shape of your average city bus, or a transport trailer. They completely lack a dorsal fin, and that, combined with their bushy, V-shaped blow,

serves to safely separate them from other whales in this area.

Besides Ocean Search, there are two other companies that offer whale-watching excursions to the Grand Manan Basin during the August to October period. Still, Murison estimates that the number of watchers does not exceed 1500 in an average year. Most of these are from Ontario, with lesser numbers from other provinces, the United States and now even a few from Europe.

These numbers may sound impressive, but they pale into significance next to the numbers of whale-watchers that put out from American harbours along the Right Whale migration route. Between Cape Cod and Florida there are literally thousands of offshore cruises made to see the whales, especially when one counts private pleasure craft among this number.

Most of the professional tour operators originate from harbours along the shore of New Jersey and Long Island. The industry is worth many millions of dollars to these operators, some of whom carry more than 100,000 paying passengers each year! When you compare this to the situation in the Bay of Fundy, it becomes obvious that the whales are hardly bothered at all in our waters.

Murison says that the three operators out of Grand Manan coordinate their efforts in an attempt not to "gang up" on the whales. She says two boats are the most that are allowed near the whales at one time, and a code of ethics laid out by the Department of Fisheries and Oceans is strictly followed. This is in stark contrast to the unregulated and unknown impact thousands of American pleasure craft pose to the Right Whales.

Of course, being loved to death by an over-zealous public is not the only hazard these whales have to face. In their yearly migration up and down the east coast of America, they must endure the combined effluents poured into the sea from industrial centres such as New York, Philadelphia and Baltimore. Researchers have little idea what effect this pollution is having, but they do know that whales are naturally resistant to higher levels of mercury than humans are.

Other hazards include collisions with ships, entanglement in fishing gear and predation by Killer Whales and sharks. This latter form of mortality seldom occurs in the Bay of Fundy, as Orcas are rarely seen here, and any sharks that do spend time in the bay concentrate their efforts on catching seals or Harbour Porpoise. Right Whales are by no means defenceless either; a blow from their huge tail is enough to give any Orca or Great White Shark second thoughts about dining on them.

As should be obvious from this rather cursory examination of the life cycle of the Right Whale, and its association with the Bay of Fundy, much remains to be learned of their habits. For instance, Finback Whales can communicate underwater over distances of hundreds of kilometres using low frequency sounds in the 25 khz range, but next to nothing is known about this ability in Right Whales.

While the study of Right Whales is done according to strict scientific guidelines, there are times when one must simply sit back and enjoy the whales for their personalities—and they do have them. Like most youngsters, Right Whales between the ages of one and two show the most curiosity about their environment, and whatever else happens to be in it.

Murison says a favourite habit of young whales is to dive whenever they are approached by boatloads of

tourists intent on watching them. When the watchers tire of waiting for them and the captain starts the engine to leave, "Up they pop," she says. On one occasion, as it started to pour, a young Right Whale surfaced nearby, opened its mouth and began to spin slowly around in the water. As the watchers watched in fascination, the little whale stuck out his tongue and began to catch... raindrops.

While the future for these magnificent animals is far from clear, it is to be hoped they will continue to return to the Bay of Fundy for many years to come. Here, at least for a few weeks, we can watch in awe and reverence as these denizens of the deep frolic and cavort in their nursery in the sea.



The Day It Rained Dovekies

Mary Majka



"The bird looks really queer. It has a very small beak, a white breast and a black back, and it walks like a penguin."

The last bit of information was diagnostic. "You've got a Dovekie," I told her.

"A what?"

"A Dovekie is a seabird," I explained.

"But what's it doing in front of my house in the middle of the woods?"

After that, the telephone never stopped ringing. Dovekies were falling from the sky.

Actually we had suspected something like this might happen. The weather forecast had warned of a winter storm with winds up to 100 km/h, but when it hit, it was worse than expected. Our old house shook and groaned ominously. The snow fell thick and heavy. Driven by the winds, it piled up into huge snowdrifts.

Next morning there was no hope of going anywhere. It was the second of February, a date that reminded us of the famous Groundhog Day gale of 16 years ago. That storm hit with equal force but with even more disastrous consequences.

While waiting for the snow plows to open the roads, we received dozens of calls about "strange birds" around houses and on highways. Dovekies seldom can manage to take off from level ground so people were picking them up and trying to feed them anything from bird seed and bread to cat food.

We put an alert on the radio and in the newspaper explaining what had happened and what to do with the birds. Keep them in a cool place and as soon as possible get them to open water.

The problem was there was no open water, at least not close to where most of the birds were found, along the shore facing P.E.I. Contacting the island, we learned they too had Dovekies "all over the place". Here in New Brunswick we promised callers that as soon as it would be possible to travel we would try to reach them. We contacted Stuart Tingley, who lives along that shore, and arranged a pickup scheme. Working together the next day, we rounded up the

birds, hoping to take them to open water on the Bay of Fundy.

But time was quickly running out. The little ocean-going strays just couldn't take that length of time out of their proper element. Most of them died soon after they were found. Three days later, on Feb. 5, when the sky was blue and the wind only moderate another wave of Dovekies hit the snowy coast. By then we were more prepared, but the birds were in just as bad shape.

Altogether we received information from 42 people most of whom contacted us by phone. We speculate that hundreds—perhaps thousands—of birds must have perished. We could "save" only three, but even in those cases we are not sure whether they survived after release.

The rest landed dead in our freezer. David took careful measurements and the story of their demise became clearer. They arrived on our shores in a very rundown condition with their normal weight about one-third gone. Who knows what hardship they went through during that terrific storm. Were they frantically trying to fly against it, or were they scooped up by the winds from a faraway part of the ocean and carried for days without food and water until their energy was spent? Whatever happened it was a sad story. It caught people's hearts and imagination. To this day we are often asked about the "baby penguins" that fell from the sky.

There is a sequel to that story. On Feb. 12 a call came from some friends whose house faces the Bay of Fundy in Waterside.

"We have one of your birds here," they announced.

To our surprise it turned out to be a Thick-billed Murre. Obviously, Dovekies were not the only birds¹ picked up by the storm. "Turr" as we called him was

(continued on page 5)

¹ An Oldsquaw was also reported in the woods near Aboujagane.

From The Pages of the Journals

Queer Birds: Marsupial Avians, Compost Heaters and Obligate Parasites

Christopher Majka



Sumer is icumen in,
Lhude sing cucu!
Groweth sed, and bloweth med,
And springeth the wude ou.
—sung annually at Reading Abbey
gateway since 1250 A.D.

As Stephen Jay Gould owlishly observes¹, one of the most famous telegrams in biological history came from the young British biologist W. H. Caldwell, who in 1884 wired the annual meeting of the British Association in Montreal saying: "Monotremes oviparous, ovum meroblastic." The crowd went wild.

Confused? Not standing on your seat cheering? Well, this telegram solved an enigma which biologists all over the world had been puzzling over for almost a century since the discovery of the platypus. Translation: Platypuses lay eggs (the meroblastic part needn't concern us here).

There are many interesting trails which lead to and from this discovery. The one I wish to follow here is that many, wonderful and varied are the ways in which creatures reproduce. Making copies of yourself is a complicated affair fraught with many problems—and a certain number of rewards as well! There are several approaches, each with its own set of advantages and disadvantages: to lay eggs or to give birth; to produce many offspring or few; to take care of them or not? All these possibilities have important ecological and evolutionary consequences.

At various times I have explored some of these issues in the pages of the *N.B. Naturalist* (see "Sex and the Single Salamander", *N.B. Nat.* 17(2): 25-26). Today I would like to expand on that discussion by considering not platypuses but birds.

As most of us amateur ornithologists know, birds build nests, lay eggs, rear their young and once fledged, send them off into the world to fend for themselves. What could be simpler? However this conventional scheme of things has some utterly unconventional variants.

One sexual deviant we are all probably familiar with (no need to blanch here—I promise this column will not become X-rated!) is *Molothrus ater*, the Brown-headed Cowbird. The cowbird is one of 87 species of birds in the world which are so-called obligate brood parasites. Translation: they lay their eggs in the nests of other birds. Not only do they, they

must. These birds do not build nests of their own and must find a host to rear their young. Such birds are found in four different families: the cuckoos (Cuculidae), the African honeyguides (Indicatoridae), the blackbirds (Icteridae) and the parasitic weaver-finches (Ploceidae) of Africa. The European Cuckoo is, perhaps, the best known of them all and the inspiration behind our word *cuckold* (the husband of an adulteress; one whose wife is unfaithful). Of these obligate parasites only the Brown-headed, Bronzed (*M. aeneus*) and recently the Shiny (*M. bonariensis*) Cowbirds² are to be found in North America.

Less well known than these obligate parasites are so-called facultative brood parasites. These are birds which, although building nests of their own and raising young *also* seize opportunities to deposit eggs in the nests of others. You might be surprised to learn that such familiar members of New Brunswick's avifauna as the Canada Goose, Wood Duck, Mallard, Pintail, Blue-winged Teal, Shoveler, Greater Scaup, Common Goldeneye, Hooded, Common and Red-breasted Mergansers, and Common Eider all engage in such antics. Most such facultative parasites are ducks but Black-billed and Yellow-billed Cuckoos, Ring-necked Pheasants and Bobwhite also display such behaviour. All of this brings me to the subject of this month's column, a recent theoretical paper by Bruce Lyon and John Eadie called "Mode of development and interspecific avian brood parasitism"³. Say what?

To understand these author's findings we must first explain the distinction between altricial and precocial birds. Chicks of altricial birds hatch from their eggs blind, are for the most part naked, unable to stand and quite defenceless. The young of precocial birds, on the other hand, have open eyes, are covered in down, are alert and able to walk and can soon start foraging for themselves. Ecologically the choice facing birds is between laying eggs with small amounts of yolk which then hatch into little-developed chicks that have to be cared for carefully for some time; or laying eggs with sufficient nutrients to let the chicks develop much more fully before hatching. Each strategy buttresses the species against certain dangers but leaves it open to other problems. Precocial birds tie up more resources in each egg and have to incubate for a longer time but when the young hatch they can soon move and are not, literally, sitting ducks. Altricial birds put fewer resources into each egg (making it easier to recover and re-nest if disaster strikes) but must care for vulnerable chicks for a longer time.

Lyon and Eadie's observation (backed by a theoretical discussion and an analysis of ecological energetics) is that obligate parasitism is found almost exclusively in altricial birds whereas facultative para-

¹ Gould, S.J. (1991) To Be a Platypus (in *Bully for Brontosaurus*). W.W. Norton, New York. 540 pp.

² The Shiny Cowbird, formerly a Central and South American species, has been expanding its range to the north. This past summer one was found in Maine and before long we can expect to see them appear in New Brunswick.

³ *Behavioural Ecology* 2(4): 309-318.

sitism is predominant in precocial birds. Why? Well, simply put, for altricial birds, which invest less energy and nutrients per egg and can produce a larger number of eggs, it's to their advantage to drop as many eggs as they can in as many nests as they can and then let the foster parents shoulder the work and risk of rearing the kids. Precocial birds, on the other hand, generally invest too much energy and nutrients in their eggs (and the kids are less of a bother!) to be indiscriminate about where they leave them. In fact, of these facultative brood parasites almost all (29 of 33) are known to parasitize not only nests of other species but also other nests of their own species. This suggests to the authors that the parents are, literally, loathe to put all of their eggs into one basket. Should disaster strike your brood you can rest easy knowing that a few extra progeny are out there with the neighbours.

Now such reproductive shenanigans may seem peculiar enough to you but ecological and evolutionary challenges have taught birds that there is more than one way to skin a catbird (excuse me for this yolk). The 'sitting duck' principle alluded to earlier is a very serious concern of birds. One of the advantages of being a bird is you can fly away, up into the air, where all manner of snakes, cats, mongooses and the like can't follow. Sitting on a nest makes you and your young very vulnerable. This problem has been solved in ways other than parasitism. Take the Brush Turkey for instance. In Australia live twelve species of a group called megapodes. These birds actually go through the elaborate procedure of building an enormous compost pile in the centre of which they lay their eggs. They then allow the rotting vegetation to provide the heat which will incubate the eggs! The details of this are endlessly fascinating and utterly beyond the scope of this article but those interested should consult Frith (1959)⁴ or Seymour (1991)⁵ for some extraordinary accounts.

Equally extraordinary, and much less known, are the details of the world's only known marsupial bird. "What," you cry in alarm! "This really is straining credulity!" Ahh, but truth is, indeed, stranger than fiction. Deep in the jungles of Central and South America dwells a curious bird known as the Sungrebe (*Heliornis fulica*)⁶. In 1833 the German ornithologist M. A. Wied⁷ reported that this bird carried its young about in *pouches* under its wings. Later generations of ornithologists viewed this report with, to say the least, skepticism. However in 1969 Mexican ornithologist

Miguel Alvarez del Toro⁸ spent a summer in Chiapas observing a nesting pair of Sungrebes and stunned the ornithological world when he discovered that almost immediately after hatching the male places each of the two chicks in pouches under his wings and departs.

What happens subsequently is unknown but presumably the male cares for and feeds these naked, altricial chicks until they are ready to fend for themselves, all the while transporting them safely beneath his wings. Voilà, sitting duck problem at least fifty percent solved! By the way, there are two other species of Sungrebes, the southeast-Asian Masked Finfoot (*H. personata*) and the African Finfoot (*Podica senegalensis*). To the best of my knowledge no one has ever observed the breeding behaviour of these birds. Any takers? There could be some interesting discoveries waiting to be made.

So next time you have to tell someone about the birds and bees remember that at least the *birds* have more than a couple of tricks up their feathered sleeves.

The Attic warbler pours her throat,
Responsive to the cuckoo's note.
—Thomas Gray, *Ode on the Spring*, l.5

Protection for Manawagonish Island

Manawagonish Island, an important 20-ha seabird colony off the western shore of Saint John was recently donated to the Nature Trust of New Brunswick by the daughters of the late K.A. Wilson. This action comes as a relief to many naturalists who have been concerned about the island's future. Although the land was a gift, the Trust is faced with \$3000 in acquisition costs. Donations should be sent to the Nature Trust of N.B., c/o Biology Dept., U.N.B., Fredericton, N.B. E3B 5A3.

When it Rained Dovekies (cont. from page 3)

also in poor shape but force-feeding him was relatively easy. First we stuffed him with smelt and herring dipped in cod liver oil and sprinkled with vitamins. And soon smelled much like that concoction ourselves. Luckily, after a few days, Turr—a common name for that species in Newfoundland—started to feed himself and quickly gained a lot of weight. We planned a trip to Maces Bay to free him. Alas, unexpectedly, the bird suddenly stopped eating, and, when forced, regurgitated the food. Sad to say within a few days he too was a specimen in the freezer.

All the frozen Dovekies will be sent away for examination by Canadian Wildlife Service seabird biologist Dr. Dick Brown at the Bedford Institute.



⁴ Frith, H. J. (1959) Incubator Birds. *Scientific American* August, 1959: 52-58.

⁵ Seymour, R. S. (1991) The Brush Turkey. *Scientific American* December, 1991: 108-114.

⁶ I cannot refrain from mentioning that one of the ornithological high points of my last year was sighting a Sungrebe in the lagoons of Tortugero, on Costa Rica's Caribbean coast.

⁷ Wied, M. A. (1833) *Beitrage zur Naturgeschichte von Brasilien* 2(4): 827-828.

⁸ Alvarez del Toro, M. (1971) On the Biology of the American Finfoot in Southern Mexico. *Living Bird* 7: 79-88.

De jolis visiteurs nocturnes

Suzanne P. Doucet



La maison que nous avions achetée à Moncton avait l'avantage d'être située près d'un terrain boisé, et différents arbres fruitiers aux abords du bois semblaient attirer bien des oiseaux. Nous avions

donc installé des mangeoires afin de les observer à notre guise et à notre grand plaisir, plusieurs espèces venaient s'y nourrir. Nous n'avions cependant pas prévu les autres visiteurs, qui au cours des mois, se sont amenés chez nous. D'abord les chevreuils : leur sentier traversait en diagonale la cour arrière et nous pouvions souvent voir une ou deux femelles accompagnées de petits. Quelquefois, les plus hardis s'aventuraient jusqu'aux mangeoires, mais la plupart du temps, ils restaient quelques instants près des pommiers à croquer des pommes tombées sous les arbres, pour ensuite disparaître dans la forêt. Les écureuils roux étaient également des habitués de nos mangeoires, et même parfois des tamias rayés. Puis il y eut les visiteurs inhabituels : des mouffettes, un renard roux, une belette et même par un beau dimanche après-midi d'hiver, un coyote!

À l'automne dernier, nous avons réalisé, à un moment donné, que les mangeoires remplies en fin d'après-midi, étaient complètement vides le lendemain matin! Nous avions donc des visiteurs nocturnes, mais lesquels? Il s'agissait en fait d'une famille de rats laveurs qui, d'après ce que nous avons pu voir, avait élu domicile sous notre garage. Aussitôt que nous avons prononcé le nom «raton laveur» dans notre entourage, les conseils ont fusé : Il faut vous en débarrasser, ils vont tout briser, ils vont entrer dans le garage, ils vont manger vos pneus d'auto! etc. Eh bien, les rats laveurs devaient trouver que notre réserve de graines de tournesol était bien suffisante pour satisfaire leur appétit, car pendant les deux mois que nos charmants visiteurs ont passé chez nous, la seule trace qu'ils ont laissée était l'empreinte de leur pas du garage jusqu'aux mangeoires, et... des écales de plus de quatre-vingts kilos de graines!

Étant donné que le comportement de nos rats laveurs ne correspondait pas tellement à tout ce qu'on m'avait dit d'eux, j'ai eu le goût d'en savoir un peu plus long et une petite recherche m'a permis de clarifier certains mythes et d'apprendre bien des choses sur ces mammifères.

Le raton laveur est le seul membre de la famille des procyonidés en Amérique du Nord, et ses lointains cousins, le coati, le kinkajou et le plus célèbre panda, se retrouvent dans les régions tropicales et subtropicales. Son nom scientifique est *Procyon lotor*, procyon étant l'étoile la plus brillante dans la constel-

lation du petit chien, et lotor étant un mot grec signifiant laveur. Il est intéressant de noter que son nom anglais «raccoon» vient de l'algonquin «arakun» et signifie «celui qui gratte avec ses mains».

Le raton laveur est un animal plutôt sédentaire, et on le retrouve surtout en bordure des forêts de feuillus, rarement dans les grandes forêts, ce qui expliquerait sa présence sur le terrain boisé près de chez nous. C'est un omnivore et son régime est tellement varié que je pouvais à peine le croire : des écrevisses, des petits de rats musqués, d'écureuils et de lapins; des oeufs de canard, de carouge, de gélinotte, de tétas, de faisans; des invertébrés de marais comme les coques d'eau douce; des fraises, des framboises, des mûres et des bleuets; des légumes, des carcasses de cerfs et des graines de toutes sortes! En fait, ce type de régime explique malheureusement qu'on le retrouve de plus en plus dans les villes et près des grands dépotoirs.

En décembre, nous avons cessé de voir nos rats laveurs et j'ai pensé qu'ils étaient sûrement en état d'hibernation. Mais non, le raton laveur n'hiberne pas, il devient tout simplement inactif et passe l'hiver dans un abri (cavité dans un arbre mort, une souche, un billot, une caverne ou une corniche de rocher, parfois dans une grange ou une maison abandonnée). À l'automne le raton laveur mange énormément pour se constituer une réserve de graisse qui lui permettra de survivre pendant l'hiver. Je comprends maintenant pourquoi les graines de tournesol disparaissaient aussi rapidement! Il demeurera dans son abri jusqu'en janvier ou février, qui est le début de la saison des amours, et à ce moment là, le mâle part à la recherche d'une femelle pour l'accouplement. La période de gestation dure 63 jours en moyenne et se termine vers la fin avril, début mai, par la naissance de un à sept petits.

La femelle prendra seule soin des petits, et la famille restera unie et partagera le même abri jusqu'à ce que les petits aient un an.

Le raton laveur n'a qu'un prédateur important : l'être humain mais parfois le hibou «grand duc» s'attaque aux petits. Il semblerait que malgré le piégeage et la chasse, on ne craigne dans l'immédiat aucune baisse de population.

Il me tardait de savoir si le raton laveur lavait ou non sa nourriture avant de la manger. Eh bien, d'après la Fédération canadienne de la faune, le raton laveur ne lave pas sa nourriture! Cette croyance serait due au fait qu'il manipule beaucoup sa nourriture avant de la manger.

Maintenant, l'hiver est là, les rats laveurs ne sont pas encore revenus. Qui sait, peut-être l'automne prochain nous feront-ils le plaisir de revenir cohabiter avec nous...



Club News

Moncton Club Celebrates 30 Years

On Saturday, January 11, the Moncton Naturalists' Club celebrated its 30th anniversary with a gala potluck supper attended by over 90 current and former members.

The length of one side of a downtown church hall, festively decorated with club banners and insignia, featured a display of reports, photos, and news clippings depicting club activities through the years. Tables were laden with a great variety of delicious food, including enough cake to have satisfied the assembled throng for two meals.

President Shirley Hunt and past president Diane Allain led a program of remembrance and fun, which included the presentation of certificates to founders Mary and Mike Majka and Doug Whitman, who together cut the official anniversary cake. Certificates were sent to four other founding members who live too far away to attend. Also present was Tony Erskine of Sackville who had come to the original meeting to get help for the first Cape Tormentine Christmas Bird Count. Jim Goltz conveyed congratulations to the club from the New Brunswick Federation of Naturalists.

At intervals through the evening there were drawings for door prizes donated by local businesses. Everyone present won at least a one-pound bag of mixed bird seed, but the big prizes in the anniversary raffle—a telescope and a limited edition print—were won by members who were absent that night.

Feature of the evening was a talk with slides by Mary Majka, who described the club's development and interests from the original get-together of nine persons in her living room in December 1961 to the present-day. She challenged the club to maintain its environmental and educational focus.

Another popular event was the singing of a thirtieth anniversary song, composed and led by Elaine Bonnell. Nine verses to the tune of the *Kelligrew* *Soirée* included the following:

It all began in '61, December was the month,
There was a group of eight who said that something must
be done.

They started with a meeting but not a colony*
And so began what we now know as the Moncton
Naturalists' Club.

We have field trips, slide shows, lecturers, and heaven
knows,

Bats, bears, foxes, butterflies and moths,
Mushrooms, fungus, fishes, whales, and fossils.
I'll tell you what, you'll learn a lot...at the Moncton
Naturalists' Club.

* Alluding to some people's perception that the club was for nudists.

Club Formed on Grand Manan

If you plan on travelling to Grand Manan between now and October to do some birding or botanizing, there is a new nature group on the island that could benefit from your expertise. The Grand Manan Field Naturalists formed in mid-April with the goal of "promoting an interest in, and appreciation for, the natural history of Grand Manan."

If you are familiar with any aspect of the natural history of the island and would be willing to lead a field trip, you could be instrumental in determining whether or not the group succeeds. The first year is usually the critical one, and if enough interest and enthusiasm can be generated by visiting naturalists this season, the success of the GMFN should be assured. Members have indicated a preference for birds and wildflowers, but some would also like to know more about edible mushrooms and plants, lichens, tidal life, geology and butterflies.

Speakers will also be required for the November to April period when meetings hopefully will be held monthly at the Grand Manan Museum. If you would like to help this fledgling group get off the ground, please contact Brian Dalzell at P.O. Box 145, Castalia, N.B. E0G 1L0, or phone 662-8650.

Nouvelles du C.N.P.A.

Le 9 février dernier, se tenait la journée des membres à l'Académie Ste-Famille de Tracadie. Le tout a débuté par une exposition. On y trouvait une collection de pierres et minéraux, d'insectes et papillons; un coin était réservé aux champignons, au Pluvier siffleur et un questionnaire sur les fleurs sauvages. Les plans préliminaires pour le futur Centre écologique de Pointe à Bouleau étaient aussi exposés.

Au cours de la réunion mensuelle qui a suivi, on a fait la remise de certificats de mérite à cinq membres qui ont atteint l'Objectif 200 (observé 200 espèces d'oiseaux dans la Péninsule), ils sont: Desanges Doiron, Yolande Paulin, Roland Robichaud, Donald St-Pierre et Gertrude St-Pierre. Depuis la fondation du club (1986), 14 membres ont obtenu ce certificat de mérite.

Deux autres membres ont obtenu aussi un certificat de mérite pour le Projet arbres. Il faut collectionner et identifier 30 essences d'arbres dans la Péninsule. Les récipiendaires sont Hilaire Chiasson et Bruno St-Pierre, ce qui porte à cinq les détenteurs de ce certificat.

Les membres du Club ont aussi voulu souligner le travail fait par Marcel David, Émile Ferron et Jean-Raymond Gallien pour avoir sauvé d'une mort certaine un Huart à collier pris dans un morceau de filet de pêche, lors d'une sortie du Club le 10 novembre, 1991.

Le tout s'est terminé par un souper partagé par les membres.

Excursions

Une sortie spéciale

Dimanche le 26 janvier, malgré une température de -18°C et du vent, vingt-cinq membres du C.N.P.A. se sont réunis pour participer à un rallye d'observation. C'était une première et personne ne savait vraiment à quoi s'attendre.

Après nous avoir remis un carton, avec feuilles et crayon, on commença par tester notre capacité d'évaluer les distances entre un poteau habillé d'un foulard de couleur à un autre. Quatre questions nous ont permis de connaître nos limites dans ce domaine. On nous a fait évaluer l'envergure d'un rapace situé dans un arbre à 100 mètres.

Nous avons ensuite pris un sentier, nos guides nous ont fait identifier 14 essences d'arbres le long de la route. Nous avons eu à identifier 6 planètes sur photos couleurs, 8 photos de traces de mammifères. Des numéros nous demandaient de trouver des portraits d'oiseaux attachés sur des arbres pendant une période déterminée. Mais Dame nature a joué un tour

aux responsables, il n'a pas neigé et nous n'avions qu'à suivre les traces de raquettes sur la neige, pour notre grand plaisir.

Il y avait plusieurs jeux d'observation comme trouver un nid dans un

secteur donné, c'était un nid d'abeilles ou un cocon de cecropia, ou encore une silhouette d'oiseau grande nature sur une branche d'arbre. Nous avons eu à évaluer la hauteur de certains arbres, à identifier des chants d'oiseaux, un polypore sur un bouleau, à découvrir qu'est-ce qui avait fait des marques sur certains arbres.

Il y a eut plusieurs questions amusantes comme deviner le nombre d'arachides dans un bocal suspendu à un arbre, combien de minutes un castor peut-il rester sous l'eau? Deux questions furent gardées pour le dessert, arrivés au camp, nous avons eu à identifier le crottin de deux mammifères.

Cette sortie fut des plus divertissantes, intéressante et permit aux membres d'évaluer leurs connaissances dans différents domaines de la nature.

Un gros merci aux organisateurs de ce rallye soit, Jean-Claude Doiron, Roland et Bernise Robichaud. — Rose-Aline Chiasson. Dessins par Manon Robichaud, un jeune membre du club.



lievre



original

Christmas Bird Counts

December 14, 1991- January 2, 1992

David Christie

Few people could complain about scarcity of birds in New Brunswick this winter, in southern areas at least. The total counted on the Christmas Bird Counts, 174,574, is far above the previous records of 121,000 in 1990-91 and 109,000 in 1987-88.

The large numbers resulted mainly from the high populations of Common Redpoll, Evening Grosbeak and other finches, as well as Starling and Kittiwake. Common Eider, Common Goldeneye, Mourning Dove, Crow, Black-capped Chickadee, Red-breasted Nuthatch, Golden-crowned Kinglet, and Robin also contributed. Abundant supplies of fruits and seeds were nourishing many of these. Most of the few species that were down in numbers were ones that are usually not very numerous.

This year saw a record 46 areas reporting, up from 41 a year earlier. The province is now really well-covered. New counts were established at Queenstown, Salisbury, and Hillsborough, and old

ones resumed at Minto and Machias Seal Island. Hours of effort increased by only 3%, but the distance travelled was up 25%. The number of feeder reports was down slightly.

Mild late fall and normal early winter weather conditions allowed a species total of 121, down from 124 last winter but equal to the highest previous result. Eleven additional species were reported during the count period. Three were new to New Brunswick CBCs: Little Gull at Eastport-Campobello, Townsend's Solitaire at Plaster Rock, and Western Meadowlark at Fredericton. At first identified as an Eastern, the meadowlark makes one wonder about the identity of other winter meadowlarks in New Brunswick; more on this discovery in a future issue. Reports of the solitaire, a Yellow Warbler at Minto, a Brewer's Blackbird at Hartland and a Hoary Redpoll at Stanley were not accompanied by detailed documentation.

There are other interesting species to note. One of two Broad-winged Hawks reported at Moncton was seen closely for a moderate length of time, but immature hawks can be tricky. Nova Scotia has had several well-documented winter records of Broadwings. Wild Turkeys were found at Grand Manan, where the 1987 introduction is fading fast due to "lead-poisoning", and at Woodstock, where there may have been an unsanctioned release. Species establishing themselves from the south include Carolina Wren at Saint John (during count period at Fredericton and Hartland), 20 Mockingbirds (one at Bathurst), 20 Cardinals (one at Chatham-Newcastle), and 34 House Finches (including one at Kedgwick).

The Bald Eagle, which is slowly increasing in most areas, is up considerably around Passamaquoddy Bay. It was a low year for Rough-legged Hawk. Count period records of Snowy Owl were widely scattered, but there were definitely more birds in the northeast than elsewhere. Barred Owl was below average. Note the Golden Eagle, Gyrfalcon, Peregrine, and Hawk Owl records.

Ruffed Grouse are increasing; the birds per party-hour figure was the highest since 1985-86. We had the most Mourning Doves ever. In southwestern N.B. they seem to have levelled off, but increases continue in eastern and northern areas, as exemplified by totals of 99 at Ile Lamèque and 42 at Caraquet.

Boreal Chickadees were very low in most areas, but the southeastern counts from Fundy Park to Cape Tormentine and a few northeastern counts had enough to raise the total substantially from last year. Red-breasted Nuthatch numbers were high, birds per party-hour being comparable to those in 1974-75 and 1988-89. It was also a good year for Golden-crowned Kinglets, especially along the southern coast and at Fredericton, but they were not quite as numerous as in 1988-89.

Because of the mountain-ash crop, fruit-eating species were numerous. Robins were widely distributed, with the largest numbers in southern coastal areas and at Fredericton. The most Cedar Waxwings ever found on our CBCs were concentrated in the western half of the province north to Campbellton. There were more Bohemian Waxwings than usually in the north, fewer than normal in the south. The discovery of seven Flickers and the record abundance of Starlings were also probably influenced by the mountain-ash berries.

Snow Buntings, below average in the south, above in the north, were concentrated in the northeast. Very few Lapland Longspurs were found, but more Horned Larks were seen than usual.

Blackbirds, with the exception of Red-winged, were scarce. Brown-headed Cowbirds were low for the fifth consecutive year. The rather low Grackle total did include individuals north to Tracadie, Bathurst and Ile Lamèque.

Pine Grosbeak was the only finch that was scarce, very low in the south (except numerous at Stanley), about average in the north. The other species were above average, in some cases very much so. It was a high year for White-winged Crossbills, which were

concentrated in the southeast, from Fundy Park to Cape Tormentine. This year's numbers of Pine Siskins have been exceeded only in 1986-87. Goldfinches were again much above average, being found everywhere but the northeast. Record numbers of Evening Grosbeaks were counted, about double the best previous year (1986-87) in terms of birds per party-hour; they were common in all parts of the province.

It was also a record year for Common Redpolls. They were common in many areas, especially at Cape Tormentine.



"The single most notable feature of the 1991 Cape Tormentine count was the incredible migration of **Common Redpolls** that were abundant in every sector of the count... Tingley and Gilliland observed a near constant migration of over 10,000 redpolls heading NW along the shore at Cadman Corner. Elsewhere... the birds were... feeding on alder and birch seeds. Redpolls accounted for 74% of the total number of individual birds recorded on count day." — Al Smith, compiler.

House Sparrow, although up somewhat from last year, remained near its lowest level in 30 years.

Results of the following inland and estuarine counts are presented in the tables on pages 12-13. Abbreviations and footnotes to the tables appear on page 16.

Salisbury (Sal) 1st year

Dec. 29, 08:00-16:00. Mostly clear, some light cloud; temp. -15° to -3°C; wind SW, 10 km/h. Snow cover 38-45 cm; water frozen. 13 observers in 5 parties, plus 1 feeder report.
Connie Colpitts (compiler), Pearl Colpitts, Jackie DeCoste, Lloyd DeCoste, Pat Fox, Mike Gouley, Shirley Hunt, Bliss Lowerison, Carol Lowerison, Heather Silliker, Linda Steeves, Ron Steeves, Alma White, Don White.

Sussex (Ssx) 19th year

Dec. 14, 08:30-15:30. Clear in a.m., overcast in p.m., with light rain after 15:00; temp. -4° to +5°C; calm. Ground bare; running water open, still frozen. 12 observers in 8 parties, plus 30 feeder reports.
Florence Arnold, Tom Anderson, Romana Berry, Gast Bishop, Darren Byers, Orland Brown (asst. compiler), Thelma Brown, Anne Candy, John Candy (compiler), Barb Chestnut, Alton and Berna Chown, Marc Connell, Gordon and Pearl DeLong, Walter and Marion Hunter, Pauline McAfee, Peggy McKenna, Barry McPhee, Ian and Shirley McLean, Ron and Marion MacAfee, Beth McFarlane, Helen and Gerald MacKenzie, Anne Moffett, Dorothy MacVey, Hudson Murphy, Doug Northrup, Marilyn Powell, Jim Proctor, Blanch Prince, Hank and Mary Powers, Hubert and Evelyn Robinson, Pauline Thibodeau, Ruth and Ralph Willis, Colby Yeomans.

Hammond River-Hampton (Htn) 19th year

Dec. 29, 07:00-17:00. Clear; temp. -12° to -2°C; wind W, 2-4 km/h. Ground frozen, snow cover 12 cm; water frozen. 14 observers in 5 parties, plus 20 feeder reports.
Bob Barton, Annie Blaquiere, Don Campbell, David Christie, Paul Clark, Chad Coles, Henry Darling, John Darling, Phyllis Darling, Allan Francis, Kathy Hazlett, Carol Henderson, Jean Henderson, Lowell Henderson, Faith Hughes, Liam Hughes, Hazen Inches, Jean Isaacs, Denise Johnston, Peggy Kellogg, Bruce Loughery, Mary Loughery, Marc Majka, Mary Majka, Dave McCurdy, Iris McCurdy, Brenda McKnight, Doris Mowry, Paul Murray, Alice O'Neil, Geoff Sayre, Ian Stead, Angela Wiltshaw, Peter Wiltshaw, Brian Wilson, Charlie Wilson, Jean Wilson, Jim Wilson (compiler).

Queenstown (Qtn) 1st year

Dec. 28, 09:00-15:00. Cloud and sun; temp. -12° to -3°C; wind NW. Snow cover 30 cm; water? 10 observers in 6 parties, plus 4 feeder reports.
 Connie Dinby, Donna Lacey, Irene Lewis, Roydon Lewis, Ruth McKinney, Jane Merritt, Kay Millin, Herb Page, Frannie Piper, Louise Piper, Manfred Piper, Marjorie Roberts (compiler), Anne Slipp, George Slipp.

Cumbridge-Narrows (C-N) 22nd year

Dec. 28, 08:30-16:30. Partly cloudy; temp. -9° to -3°C; wind NW, 15 km/h. Snow cover 15 cm; lakes frozen, some brooks open. 16 observers in 7 parties, plus 16 feeder reports.

Mr & Mrs. Ford Alward, Emily Barton, Fred Barton, Marion Belyea, Lawrence Carpenter, Marie Carpenter, Talbert Carpenter, Marie Chambers, Pauline Chase, Thora Connell, Benjamin Fanjoy, Joan Fanjoy, Joan Fanjoy, Iris Ferris, Imogene Gilchrist, Allan Hicks, Margaret Hicks, Judy Hicks, Esid Inch (compiler), Rhoda Inch, Doug Jackson, Debora Kantor, Elva McConnachie, Faye McCormack, Jamie McFarland, Charles Northrup, Audrey Perry, Nellie Perry, Joyce Robinson, Joyce Thorne, Niven Thorne, Walter Thorne, Carl Unquhart.

Jemseg (Jem) 29th year

Dec. 28, time ? Partly overcast; temp. -8° to -3°C; wind ? Fields snow-covered, all water bodies frozen. 16 observers in 7 parties, plus 1 feeder report.

Ford Alward, Susan Blair, Rod Currie, Jim Edsall, Wayne Fallerston, Alexander Gardner, Don Gibson, Jim Goltz, David Myles, Marven Palmer, Robert Palmer, Peter Pearce, Muriel Smith, Rudy Stoeck Sr., Rudy Stoeck Jr., Owen Washburn (compiler).

Minto (Min) 4th year

Dec. 26, 08:30-16:00. Clear; temp. -18° to -4°C; wind W, very light. Ground and water frozen. 5 observers in 3 parties.

Loris Boucher, Ann Boucher, Lionel Girouard (compiler), Lionel LaPointe, Vincent Poirier.

Frederickton (Ftn) 35th year

Dec. 15, 07:30-17:00. Overcast, snow flurries from 10:00; temp. -2° to -5°C; wind W to NW, 18-36 km/h. Trace of snow cover, most still water frozen, most moving water open. 66 observers in 34 parties, plus 100 feeder reports.

Bill Acheson, Margery Acheson, Chris Adam, Todd Beach, Dan Beaudette, Kathy Beck, Susan Blair, Lise Bleau, Anna Cafferty, Don Cafferty, Moira Campbell, Eric Carr, Mike Casey, Susan Clayden, Betty Clatke, Roberta Cormier, Rod Currie, Ros d'Eon, Andy Didyk, Wayne Donaldson, Lucy Dyer, Jim Edsall, Jim Feltmate, Don Fowler, Don Gibson, Margaret Gibson, Angelique Gloss, Lionel Girouard, Jim Goltz, Friedrich Grein, Heidi Grein, Harold Hatheway, Hal Hinds, Morris Lemire, Sue Little, Tony Little, David Lounsbury, Sara Lounsbury, Andrew MacDougall, Cathy MacLaggan, Beth McEwing, Brian McEwing, Milda Markauskas, Rita Monson, David Myles, Murray Neilson, Paul Nicholson, Jean Noble, Jim Noble, Lise O'Hara, Margie Olive, Jenny Parish, Peter Pearce (compiler), Theresa Pearce, Lionel Richard, Boyd Richards, Dwayne Sabine, Ber Schneider, Marc Schneider, Shirley Sloan, Muriel Smith, Andy Stoeck, Glenda Turner, Leon Vietinghoff, Owen Washburn, Ron Wilson.

Mactaquac (Mac) 12th year

Jan. 1, 07:30-22:00. Clear; temp. -15° to -10°C; wind NW, 20-30 km/h. Snow cover ?; water frozen except below Mactaquac Dam and around the islands. 13 observers in 5 parties, plus 23 feeder reports.

Moira Campbell, Susan Clayden, Jim Edsall, Don Gibson, Jim Goltz, Ed Keenan, Leona Keenan, David L. Myles (compiler), Peter Pearce, Muriel Smith, Chris Turnbull, Pat Turnbull, Owen Washburn.

Stanley (Sty) 17th year

Dec. 14, 08:30-16:00. Overcast, snowed about 10 cm; temp. -15° to -6°C; wind ? Snow cover 15 cm, trees snow-covered; water mostly frozen but some open areas. 4 observers in 2 parties, plus 22 feeder reports.

Nancy Baird, Gerald Bavis, Lorna and Peter Belyea, Mr. and Mrs. Hugh Cameron, Dena Corey, Peter DeMarsh, Jean Dougherty, Gordon Dunphy, Debbie Evans, Nancy and Stephen Everett, Thelma Fairley, Margaret and Roger Flynn, Marion Grant, Sue Gratton, Jeremy Gullison, Harold Hatheway, Rita Hughes, Roger and Connie Ince, Mrs. Ruth Munn, Margie Pacey, Dawn Parker, Julie Singleton (compiler), Leona Sparkes, Sharon Suttie, Dick Wall, Robert Whitney.

Woodstock (Wsk) 28th year

Dec. 26, 09:00-16:00. Clear; temp. -10° to -20°C; no wind. Snow cover 15 cm; water frozen. 14 observers in 5 parties, plus 34 feeder reports.

Sheldon Anderson, Blair Avery, Leona Avery (compiler), Louis Beatty, Rev. and Mrs. T.S. Bellis, Anna Marie Belyea, Jane Bernard, Mrs. Earl Blackie, Mrs. Harold Bonnell, Deanna Bradley, Earle Briggs, Mrs. Paul Clark, Gerald Demmings, Mrs. Vernon Dewitt, Gerald Donovan, Mrs. Blair Findlater, Mrs. Nelson Flewelling, Mrs. Melvin Fogarty, Mrs. David Fry, Ruth B. Godwin, Verna Grant, Adam Hadley, Eric and Jane Hadley, Matthew Hadley, Harold Harley, Judy Herault, Mr. & Mrs. Ken Homer,

Stephen Homer, Lewis Irving, Mrs. Charles MacDonald, Charles Matthews, Allison McBride, Oliver Monteith, Mrs. Peter Morin, David Myles, Walter Neal, Wayne Pelkey, Eric Randall, Alma Speer, Kansas Speer, Marten Speer, Robert John and Donna Speer, David Stone, W. A. Stone, Harry Wilson, Gordon Wort, Mrs. James Yerxa.

Hartland (Hrt) 20th year

Dec. 28, 07:40-17:00. Sunny; temp. -16° to -3°C; calm. Some ground exposed; very little open water. 17 observers in 10 parties, plus 62 feeder reports.

Bad Belyea, Ross Belyea, Dudley Bird, Pearl Boyd, Clarice Boyer, Elsie Briggs, Florence Britton, Arthur Bryant, Hubert Bryant, Maria Bryant, Fred Burnett, Dell Buxton, Anna Canam, Diane Clark (compiler), Winnifred Clark, Derek Clendenning, John Clendenning, Mary Craig, Jerry Davis, Kirk Davis, Doug DeMerchant, Vera DeWitt, Jack Giberson, Dorothy Ginson, Winfred Glass, Paul Green, Clark Greer, Mary Halsett, Shirley Haath, Gordon Haveza, Eugene Hay, Clarence Hendry, Clarence Hill, Neil Hill, Jane Hovey, Nancy Hunter, Bob Johnson, Lorne Jones, Gary Kinney, Winnifred Lawrence, Lori MacDougall, Joyce Moore, Jim Morrison, Harold Nevers, Freeda Orser, Vera Orser, Sheila Palmer, Donna Peterson, Earl Pratt, Lori Prosser, Blanche Rideout, Elta Rideout, Nancy Schulze, Archie Shaw, Jeannie Shaw, Marsha Shaw, Marjorie Smith, Glenna Stephenson, Belle Swim, Clayton Swim, Joe Taylor, Lloyd Treacart, Ted Wallace.

Florenceville (Flo) 11th year

Dec. 28, 07:30-17:00. Overcast with sunny breaks; temp. -13° to -6°C; wind SE, 4 km/h. Ground snow-covered; water mostly frozen over. 7 observers in 7 parties, plus 6 feeder reports.

Ansel Campbell, Ron and Jeannette Greene, Holland Kearney, Franklin Kearney, Lorna Maddox, Bob and Wanda McIsaac, Dean A. Prior (compiler).

Glassville-Jumper (G-J) 9th year

Dec. 29, 08:00-16:00. Sunny; temp. -12° to -9°C; calm. Snow cover 15 cm; brooks and lakes frozen. 3 observers in 2 parties, plus 9 feeder reports.

Edith Buxton, Wanda DeLong, Marjorie Martinson, Brian McIntosh, Darlene McIntosh, Elsie McIntosh, Jean McIntosh, Sally McIntosh (compiler), Tammy McIntosh, Peter Puleston, Marion Spence, Jessie Welsh.

Perth-Andover (P-A) 23rd year

Dec. 27, 08:00-16:30. Overcast with flurries in a.m., then clear; temp. -10° to -5°C; wind N, 15 km/h. Snow cover 20-25 cm; rapids open, other water frozen. 2 observers in 1 party, plus 3 feeder reports.

Henry Manzer, Fred Tribe, Murray Waters (compiler).

Plaster Rock (PR) 20th year

Dec. 30, 08:45-17:00. Sunny with some clouds, snow blowing across roads and fields; temp. -18° to -13°C; wind N, 30-40 km/h. Snow cover 30 cm; rivers and ponds frozen with some open water stretches. 5 observers in 2 parties, plus 4 feeder reports.

Daphne and John Anderson, Kathy and Yvon Bealieu, Gwen Clyde, Doris Crawford, Irene Hollins, Bessie and Peter MacDonald, Janet and Wayne Milton, Laverne Rabatich (compiler), Melissa Skinner.

Nictau-Riley Brook (Nic) 19th year

Jan. 2, 08:00-15:00. Clear; temp. -14° to 0°C; calm. Snow cover 22 cm; river frozen with open channel in the middle. 5 observers in 2 parties, plus 4 feeder reports.

Joanita Black, Roger Jenkins, Wesley Jenkins, LeRoy Johnson, Celia Knowlton, Rose McCallum, Wilma Miller (compiler), Rudi Richter, Joe Yacovino.

Edmundston (Etn) 5ième année

Le 28 déc., 08:00-15:30. Nuageux; temp. -8° à -4°C; vent aille. Terre couverte de neige; l'eau gelée sauf certains endroits. 17 observateurs en 10 groupes, plus 12 à postes d'alimentation.

Basil Arsenault (compilateur), Lise Aubut, Murielle Bernier, Jeanine Bossé, Daniel Bouchard, Simon Bouchard, Denise Boucher, Monique Caron, Andrena Côté, Gilberte Cyr, Benoît Gionter, Mae Hicklin, Florida Lavoie, Madeleine Lavoie, Rita Lavoie, Dave MacFarlane, Rolande Martin, Ginette Émond, Pat Émond, Patricia Michaud, Bernadette Morin, Louis Morin (2), Daniel Nadeau, Lou Page, Luc Soucy, Daniel Thibodeau, Georgette Thibodeau, Gisèle Thibodeau. (Club d'ornithologie de Madawaska)

Kedgwick (Ked) 2ième année

Le 21 déc., 08:00-17:00. Ciel couvert, 8 cm. de neige; temp. -8° à -5°C. 25 cm de neige; lacs gelés, rivières gelées 90%. 6 observateurs en 3 groupes, plus 1 personne à poste d'alimentation.

Arthur Desjardins, Cécile Desjardins, Ginette Émond, Pat Émond (compilateur), René Gauvin, Georgette Thibodeau, Gisèle Thibodeau.

Mount Carleton Provincial Park (MtC) 14th year

Dec. 29, 08:00-16:00. Cloud with light flurries in a.m., clearing in late

p.m.; temp. -7.5° to -6.5°C ; wind NW, 10–15 km/h. 25 cm of light snow cover; running water open. 2 observers in 2 parties.
Roger Jenkins (compiler), Chris Kasch.

Southeast Upsquitch (SEU) 10th year

Dec. 27, 10:00–16:00. Clear; temp. -10° to -15°C ; wind NW, 10 km/h. Snow cover 15–30 cm; river frozen over. 2 observers in 1 party.
Ron Gauthier (compiler), Rod O'Connell.

Restigouche (Rst) 2nd year

Dec. 25, 10:00–17:00. Clear; temp. -12° to -15°C ; wind SW, 20 km/h. Snow cover 7; water mostly frozen, a few open areas along shoreline, bay frozen to McLeods, N.B. and Pt. à la Garde, P.Q. 14 observers in 8 parties, plus 29 feeder reports.

Mrs. Jim Annington, Suzanne Bourdage, Keith Bulmer, Alvin Clevette, Irene Doyle Carrier, Pierre D'amours, Mrs. William Delaney, Corinne and Donald Doucet, Margaret Gallant Doyle, Art Dixon, Carol Fale, Margaret Ferguson, Doug and Faith Firlotte, Jean Gallant, Sharon Gilker, Greg Guidry, Jim Katan, Flora Kelly, Robert Knight, Edwin Landry, Ann Lavoie (compiler), Edgar Leclerc, Guy Legacé, Shirley Libby, Mike Lushington, Jean MacDonald, Don MacLean, Allan MacNeish, Alan Madden, Julie Madden, Renée Montgomery, Leland Pollock, Maisie Pollock, Vernon and Beth Smith, Gladys Swan, Mathew Swan, Conrad Taylor, Sandra Thompson, Denise Zyvenuk.

Paquetville (Paq) 42ème année

Le 29 déc., 08:00–16:00. Quelques centimètres de neige suivit de soleil et nuages; temp. -2°C ; vent N, 5–10 km/h. 60 cm de neige sur le terrain. 14 observateurs en 4 groupes, plus 1 personne à poste d'alimentation.

Denise Benoit, Gérard Benoit, Hilaire Chiasson, Roland Chiasson, Rose-Aline Chiasson, Marcel David, Desange Doiron, Robert Doiron, Émile Ferron, Audard Godin (compilateur non-participant), Bernise Robichaud, Chantal Robichaud, Roland Robichaud (compilateur adjoint).

Chatham-Newcastle (Mlr) 20th year

Dec. 28, 08:00–17:00. Clear, becoming overcast; temp. -12° to -4°C ; wind very light. Snow cover 30 cm; all water frozen. 9 observers in 6 parties, plus 23 feeder reports.

Margaret Adams, Barbara Archibald, Mrs. William Arnoldus, Jeep Bosma, Eileen Bransfield, Monica Charney, Winston Churchill, Tim Clark, Phyllis Crows, Vernon Goodfellow, Tom Greathouse, Linda Hartlen, Ida Holland, Bud Jardine, John Keating, Connie Kekuleki, Margaret MacKinnon, Les Matchett, Lem McDonald, Sandy Mullin, Linda Newell, Mary Rawlinson, Art Roman, Theresa Ross, Delta Steeves, Jean Ullock, Bruce Walker, Harry Walker (compiler), Ian Walker, Wilfred Walsh, Parker Wheaton, Theresa Zurich.

Results of the following coastal counts are in the tables on pages 14–16.

Machias Seal Island (MSI) 2nd year

Dec. 17, 08:00–16:00. Partly sunny; temp. -12° to -10°C ; wind NNW, 46–55 km/h to NE, 9 km/h. No snow cover; sea open.
Brian Dalzell (non-participating compiler), Jim Smith.

Grand Manan Channel (GMC) 15th year

Dec. 22, 11:30–13:00. Overcast; temp. 0°C ; wind WNW, 40–50 km/h. Seas 1 m or less.
Brian Dalzell (compiler).

Grand Manan (GM) 21st year

Jan. 2, 08:00–17:00. Mostly cloudy a.m., cloudy p.m.; temp. -3° to $+2^{\circ}\text{C}$; wind SSW, 15 km/h. Patchy snow, open areas blown clear; moving water open.
Rick Cook, Brian Dalzell (compiler), Halton Dalzell, Wendy Dathan, Gloria Hobbs, Audrey Ingalls, Verna MacKenzie, Rodger and Elaine Maker, Andrew Sharkey.

Eastport–Campobello (E-C) 25th year

Dec. 26, 07:00–16:00 EST. Partly cloudy; temp. -7.8° to 0°C ; wind NW, 8–25 km/h. Snow cover 10 cm; freshwater partly open.
Bill Townsend (compiler) and others.

St. Andrews (SIA) 31st year

Dec. 15, 08:00–14:00. Heavy snow squalls a.m., broken low cloud cover and occasional sunny breaks p.m.; temp. -2° to 0°C ; wind W, 40 km/h. Snow cover 7; streams and moving water open, other fresh water mainly frozen, sea open with no ice on shore.
Steve Adamowicz, John Allen, Mindy Brown, Carlotta Cummings, Tracey Dean (compiler), Peggy and David James, Mrs. Johnson, Dorothy and Ken Langmaid, Eloise Lemire, Jim McElman, Francis and Don McLeese, Ray and Dick Peterson, Irene Ritch, Lee Ryall, Peggy and Dick Saunders, Millie and Bev Scott, Jamie Steele, Dave Stevens, Major David Walker, Marlene and Dick Wilbur, Gweneth Wilbur, Walter Williamson.

Blacks Harbour (BH) 29th year

Dec. 27, 08:15–17:00. Light snow a.m., mostly sunny p.m.; temp. -3° to

-1°C ; wind NW, 25 km/h. Patchy snow; moving water partly open.
Brian Dalzell (compiler), Halton Dalzell, Ralph Eldridge.

Lepreau (Lep) 28th year

Jan. 2, 08:00–16:15. Overcast; temp. -3° to $+2^{\circ}\text{C}$; wind SSW, 15 km/h. Snow cover < 30 cm, scattered bare ground; some fresh water open.
Tim Fletcher, Donald McAlpine (co-compiler), Mark Phinney (co-compiler).

Saint John (SJ) 35th year

Dec. 28, 07:30–17:00. Clear with 20% cloud cover; temp. -11.7° to -3.5°C ; wind WNW, 0–19 km/h. Ground snow-covered; fresh water frozen except Saint John River.

Terri Anderson, Ron Arsenault, Mike Bamford, Helen Brown, Ruth Brown, Ian Cameron, David Christie, Greta Clark, Ken Clark, Shirley Colquhoun, Mrs. Coughlin, H. Eichmann, Jennifer England, Michael England, Allen Gorham, Janet Gorham, Kit Graham, Margaret Graham, Charles Graves, Jack Holloway, Elizabeth Hoyt-Brown, Charlotte Hutchinson, Denise Johnston, Doris Johnston, Cecil Johnston (compiler), Vivian MacDonald, Rose Maria, Willa Maria, Donald McAlpine, Doreen McIntosh, David McCurdy, Maizie Melvin, John Morrison, Paul Mortimer, Rick Peacock, Joan Pearce, Ron Pearce, Dorothy Peterson, Alde Robichaud, Mrs. J. T. Sellers, Marion Sherwood, Audrey Sparks, David Smith, Don Smith, Evan Smith, Graham Webb, Sandy Webb, Jim Wilson, Frank Withers, Mitzi Withers.

Fundy National Park (FNP) 27th year

Dec. 17, 07:30–17:00. Clear; temp. -18° to -10°C ; wind NW, 15–10 km/h. Snow cover 6–20 cm; moving water and sea open, lakes frozen.

Anne Bardos, Jim Blewett, David Christie, Alain Clavette, Doreen Collingwood, Lorie Collingwood, Barbara Curlew, Edouard Daigle, Denis Doucette, Elaine Eagles, Doris Hatt, Anna Holdaway, Rod Lates, Mary Majka, Beulah Michelin, Paul Perkins, Doreen Rossiter, Brian Townsend, Karen Townsend, Rob Walker (compiler).

Riverside-Albert (R-A) 23rd year

Jan. 1, 07:45–17:30. Mostly clear, with a few clouds; temp. -10° to -4°C ; wind NW, 0–8 km/h. Snow cover 15–25 cm, blown bare in windswept areas; freshwater frozen except where quickly flowing; small amounts of ice on and near Shepody Bay, some ice on shore.

Anne Bardos, David Christie, David Clark, Yves Cormier, Barbara Curlew, Cheryl Davis, Rick Elliott, John Inman, Joel Landry, Lars Larsen, Marc Majka, Mary Majka, Mike Majka, Beulah Michelin, Stu Tingley, Rob Walker, Alma White, Don White.

Hillsborough (Hil) 1st year

Dec. 29, 08:15–17:00. Partly cloudy to overcast; temp. -5° to 0°C ; wind E, 0–5 km/h. Snow cover 5–25 cm; lakes and ponds frozen, brooks partly open, sea open.
Barbara Curlew, Rick Elliott, Rob Walker (compiler).

Moncton (Mtn) 30th year

Dec. 15, 07:30–16:30. Clear most of the day; temp. 0° to -5°C ; wind SSW, 40 km/h in a.m., W 40 km/h in p.m. Ground frozen, bare in open, 2.5 cm snow cover in woods; streams flowing.

Diane Allain, Chris Antle, Mike Antle, Leigh Bateman, Brenda Burzynski, Malcolm Campbell, David Christie, Alain Clavette, Don Cormier, Yves Cormier, Brian Coates, Bob Cotsworth, Mary Cotsworth, Mr & Mrs Ted Currie, Jacqueline Cyr, Halton Dalzell, Cheryl Davis, Richard DeBow, Lloyd DeCoste, Jacqueline DeCoste, Denis Doucette, Oscar Duguay, Dale Duplessis, Chris Ellingwood, Jim Fleming, Mary Fowles, Madeline Gemmel, Rachel Gauthier, Charles Howell, Shirley Hunt, Ed Hughes, Ford Keith, Connie King, Dulcie Kne, Claudette Landry, Joel Landry, Ron Leger, John Loch, Janet MacMillan, Alice MacQuarrie, Cheryl MacLaggan, Janet and Peter McGuire, Mary Majka, Mike Majka, Sharon McGladdery, Diane McNeil, Mr. & Mrs. Edwin Melanson, Julie Mercier, Gordon Mosher, Wayne and Win Murray, Phil and Mary Oliver, Ron Pellerin, Sheila Pickrell, Mr. and Mrs. Nelson Poirier, Kathy Popma, Winston Prince, Allan Raegele, Bill Scott, Barbara Steeves, Mr & Mrs. John Tanner, Dennison Tate, Rob Walker, Alma White, Don White, Jerry Wigmore, Roy Wilks, Doug Whitman (compiler), Bill Wood.

Sackville (Sck) 32nd year

Dec. 19, 07:45–16:35. Clear; temp. -8° to -12°C ; wind intermittent, NW, 5–30 km/h. Ground snow-covered; freshwater all frozen, salt water 5–10% open.

Leigh Bateman, Paul Bogaard, Neil Burgum, Sandy Burnett, Dan Busby, Lee Calkins, Roger Calkins, Chris Ellingwood, Richard Elliott, Toey Erskine, Jeremy Finney, George Finney, Nev Garrity, Kim Gilliland, Scott Gilliland, Peter Hicklin (compiler), Peter Higham, Ron Hounsell, Colin MacKinnon, Ruth Miller, Al Smith, Stuart Tingley.

Cape Tormentine (CT) 30th year

Dec. 16, 07:45–16:30. Cloudy with light snow squalls in early a.m., clear p.m.; temp. -12° to -7°C ; wind NW, 0–5 km/h. No snow cover; fresh water frozen, salt water mostly open with considerable slush in coves and along the shore.

1991-92 CBC	Sal	Sex	Hin	Qm	C-N	Jem	Min	Fun	Mac	Sty	Wak	Hrt	Flo	G-J	P-A	PR	Nic	En	Red	MC	SEU	Rat	Psq	Mir	Inland	
Common Loon						*		1																		
D-cr Cormorant										*			*													
Great Bl Heron	1										*															
Canada Goose	24						20	21	30		*											21			21	
Am Black Duck	2						8	37				*				6									102	
Mallard																									47	
Ring-neck Duck																									1	
Com Goldeneye	14						137	450																	610	
Barr Goldeneye							*	2														3			2	
Com Merganser	3		20	1	*		20	49		*	*		6		4										107	
Red-br Mergans							1															1			1	
Ruddy Duck							1																		10	
Bald Eagle	*			*	*	1	3	2			2					*	2	*				*			6	
Northern Harrier	*			*	*		3																1		1	
Sharp-shin Hawk			2		*																				4	
Cooper's Hawk	*																								7	
Northern Goshawk											2	1								1					4	
Red-tailed Hawk	2	1	2				1					1													1	
Rough-leg Hawk			2		*		1	*		*															1	
Martin							1																		53	
Gyr Falcon							*																		61	
RC-nk Pheasant	9	14	*		2		*			15	9	4										2	4		2	
Ruffed Grouse	2	12	5	6	1		11	2		*	*	3	5	3	*	2		1	2						53	
Wild Turkey											2														61	
Ring-billed Gull																									1	
Herring Gull	1	193	164				525	35		16												50	107	1091	5	
Island Gull							2	1															2		5	
Glaucous Gull																									4	
Grt Blk-bk Gull	*	130	64		*		385	51		7			74	8	110	37	137	47				6	84	727	3546	
Rock Dove	259	709	105		114	7	17	500	217	4	313	222										166	38	372	1127	
Mourning Dove	73	121	108		32	7	9	325	17	20	45	131	40	2	4	2	40					6	79		2	
Grt Horned Owl	*				1	*	*					*				*							*			2
Snowy Owl	*																								2	
North Hawk-Owl																									3	
Barred Owl										*				1		*									3	
N Saw-whet Owl						2	*	*	1																1	
Downy Woodpkr	5	3	20	5	8	5	2	42	19	4	25	38	13	8	2	8	8	19				9	12	10	270	
Hairy Woodpkr	4	4	9	6	14	8	3	36	20	9	25	35	22	16	2	8	5	10				18	12	11	280	
3-toed Woodpkr #																		2							3	
Blk-bk Woodpkr								*	2	*			*				*	*				1			5	
North Flicker																									*	
Fleated Wdpr	2	2	2		1	4	5	5	4	1	1	2	2	1	1	4	2	*	*	*	*				35	
Horned Lark									*				*					*							*	
Gray Jay	1	9			2	7	5	3	36	2	1	8	6					*							162	
Blue Jay	95	130	149	103	118	77	8	243	158	104	205	331	109	130	43	48	70	114				9	9		2618	
Common Crow	29	104	235	11	51	48	47	300	81	15	26	115	101	26	8	18	1	50				169	81	115	1286	
Common Raven	82	260	103	4	59	83	4	127	119	21	37	48	97	93	19	19	133	80				9	3	8	1753	
Blk-csp Chickadee	131	272	385	60	231	188	14	678	329	85	270	305	162	91	47	105	78	270				266	145	216	4393	
Bornal Chickadee	3	1					4	4				8					1					7	17	6	77	
Red-br Nuthatch	29	29	21	3	18	46		85	97	22	26	5	17	21	1	12	7	19				9	33	10	535	
Wh-br Nuthatch	1	1	1		5		4	4	4	2	10	3	3	1	*	6	3								43	
Brown Creeper	1	2			2			11	1	*	2	*				1	4					*	2		26	
Indigo Wren							*					*														

1991-92 CBC	Sal	Sax	Hin	Qtn	C-N	Jem	Min	Fin	Mac	Sty	Wsk	Hrt	Ho	G-J	P-A	PR	Nic	Em	Kod	MJC	SEU	Rat	Paq	Mir	Inland
Winter Wren	3	10	4		*	10		60	7	6		1	2	1		*		1		3	5	5	4	121	
Gold-cr Kinglet																									
T's Solitaire																									
American Robin	1	3				31		94	2		1	1	2		1	*		1					*	137	
No Mockingbird	*	1						*			*													1	
Bohem Waxwing	*	1			*	42		6	*	1	24	72	6		32	94		94			500	16		794	
Cedar Waxwing								7																	
Northern Shrike	2		1		1	3		5	2	1	1	2	20	10	*	*	*	1			20			57	
European Starling	209	794	820	186	276	178	16	1604	583	64	151	336	191	134	78	36	22	334	45		320	205	474	7056	
Yellow Warbler							*																	*	
Northern Cardinal								3	2		6	1												13	
Ruf-sided Towhee								1																2	
A Tree Sparrow	69	37	37	189	64	216	18	127	83	47	71	169	55	8	*	1	6	*		1				1210	
Chipping Sparrow													1											1	
Savannah Sparrow								1																1	
Fox Sparrow	5	5				2		*					1											*	
Song Sparrow	1												1											14	
Swamp Sparrow																								1	
Wh-thr Sparrow		2			*	*		3	*				1		1	3								10	
Wh-crn Sparrow													*											1	
DK-eyed Junco	17	70	44	20	8	13	56	12	8	13			1	4	9									281	
Snow Bunting	270	*	37	152	60	83	183	103		*	7	125	157	63	*	6	*	17	222		11	405		1901	
Red-w Blackbird						1		*																11	
W Meadowlark																								*	
Rusty Blackbird												*												*	
Brewer's Blkhd																								*	
Common Grackle																								18	
Brn-ld Cowbird	7						12	2	1		1					3								12	
Northern Oriole							1				2													3	
Pine Grosbeak							3	7		235	33	6	46	16	*	54	14	17	51	16	29	9	26	*	562
Purple Finch	*	14	5	1	*		35	11	53	29	3	3	8	8	5	4			*				*		171
House Finch	7						6												1					14	
Red Crossbill																								20	
Wh-w Crossbill	24					2	17											2	13					41	
Common Redpoll	486	36	20	4	451	531	16	1162	197	367	51	2	37	180		2	7	320	723	162	9	56	273	241	5333
Hoary Redpoll										*														*	
Pine Siskin	67	16	5		*	7	2	420	78	36	21	18	1	3	3	14	15	41	60	*		109		4	920
Amer Goldfinch #	244	350	204	135	193	94	14	956	179	286	475	368	78	1	72	36	165					75	91	4016	
Evening Grosbk #	685	422	926	630	888	428	37	2910	584	604	1276	910	332	279	147	141	163	755	79	*	486	178	350	13210	
House Sparrow	1	370	18	108	8	114	152	147		4	105	1075	30	26		14	3	147	23		66	38	45	2494	
Unidentified			1 c	36 e	2 f		118 g													11 i				170	
TOTAL BIRDS	2788	4185	3546	1708	2595	2293	210	11567	3736	2001	3303	4332	1615	1157	549	648	574	2659	1456	264	68	2466	1542	2370	57632
TOTAL SPECIES	31	37	37	19	26	30	15	59	45	26	35	32	33	28	19	29	19	29	19	14	8	26	19	31	77
Add. Sp. in Period	7	5	3 d	1	8	6	1	12	5	10	4	5	4		6	6	1	6	3		5	2	1	3	16
Hrs on foot	5.5	32	9	11	5.5	11	3	84	9.5	2	3.75	8.95	11 h	5	5	1.75	4	31	6	12	5	20.5	10.6	15	312.05
Hrs by car	26	16	31	19	21.5	27.5	15	68	29.5	13	7	4.85	7	5	6	7	10	17	9	2	1	14.5	23.4	21	401.25
Hrs otherwise							2 b																	2	
TOTAL HOURS	31.5	48	40	30	27	38.5	18	154	39	15	10.75	13.8	18	10	11	8.75	14	48	15	14	6	35	34	36	715.3
Km on foot	19.2	100	11	35	14	35	7	161	20	3	9.5	20.8	27 h	6	3	6.4	8	19	5	32	5	38	25.9	21	631.8
Km by car	934.4	220	415	110	393	406	138	838	436	213	210	159	184	154	92	57.6	74	303	163	55	30	251	334.6	357	6527.6
Km otherwise							6 b																	6	
TOTAL KM	953.6	220	426	145	407	441	145	1005	456	216	219.5	179.8	211	160	95	64	82	322	168	87	35	289	360.5	378	7165.4

1991-92 CBC	CNC	MSE	OM	E-C	SIA	BH	Lep	SJ	FNP	R-A	Hil	Mtn	Sek	CT	Shd	RNP	Tm	Lam	Mis	Car	Bst	Dad	NB Tot
Red-thr Loon	2			17	12	21	9	5	1	*								1					5 ±
Common Loon	10			18	17	2	8																75 ± 60 ±
Horned Grebe	15																						100 ± 19 ++ 214 +
Red-neck Grebe	85			7	4		4																
No Gannet #	2																						
Grt Cormorant	140			48	4	20	1																6 + 5 + 168 -
D-cr Cormorant	2					6																	
Great Bl Heron	30					7																	
Canada Goose						2																	
Green-wing Teal						7																	
Am Black Duck	275			573	118	165	40	413	22	348	109												2 ± 2197 ± 235 -
Mallard	35			7		12		25		7	52												
Northern Pintail										1													1
King-neck Duck	110			2	32	5				10													1
Greater Scaup																							
Common Eider	12			145	1500	1250	101	3	2	3													163 ± 4395 ++
King Eider																							
Harlequin Duck																							
Oldsquaw	50			245	45	85	28	1															1970 ±
Black Scoter	20			10		4	*	2															75 + 66 -
Surf Scoter	2			26	8	23	6																152 -
Wh-wing Scoter	19			18	12	28	2	10															2208 ++
Com Goldeneye	225			127	31	25	82	425	3	9													139 +
Com Goldeneye										2													523 ±
Barr Goldeneye																							
Buffhead	57			253	73	60	25	55															16 +
Hood Merganser	1			10			4			*													358 ±
Com Merganser										21													677 +
Red-br Mergans	265			109	6	18	7	82															1
Ruddy Duck																							100 +
Bald Eagle #	8			11	3	52	4	3	1	1	1	3	2	1	*								5
Northern Harrier	2					2	*	1															13 ±
Sharp-shin Hawk	1			1		1																	*
Cooper's Hawk																							
Northern Goshawk	1									*	1	1	1	1	1								9 -
Broad-w Hawk #											2												2
Red-tailed Hawk				2	1	1		*		*	1	1	1	1									14 ±
Rough-leg Hawk	2			1	2		2			*	3	3	8	5									27 -
Golden Eagle										1													1
American Kestrel						1	*	*															1
Merlin																							3
Peregrine Falcon																							1
Gyrfalcon											1												1
R-nk Pheasant	30				*		1			4	5	56	37	*	*								186 -
Spruce Grouse				1	1					*													2 ±
Ruffed Grouse	2			2	2		3	18	8	8	1	8	2	14	1	15							138 +
Wild Turkey																							3
Killdeer	1					1																	1
Purple Sandpiper																							398 +
Little Gull	200	45		*	19	65			10	35	24												*
Com Bk-bd Gull				1																			1
Compartie's Gull				27	37	35																	99 ±

1991-92 CBC	QMC	MSI	QML	E-C	SIA	BH	Lep	SJ	SNP	R-A	Hil	Min	Sck	CT	Sld	KNP	Tra	Lam	Mis	Car	Bat	Dul	NB Tot
Ring-bill Gull #				21	19	5		15						284		12				1			352 +
Herring Gull	2.5	50	3000	5182	600	1200	231	1199	93	173	13	2079	212	553	119	108	18	14	72	5	2	100	16139 -
Island Gull				17	35	1	263	1		325		47		178	6	4	47	696	59	310	20	1915 +	
Glaucous Gull				1	6		14					3		2	16		5	21	3	5	10	92 +	
Grt Gull	10	450	800	634	75	120	63	311	2	26	36	2031	351	232	347	24	69	198	93	42	116	100	6857 +
B-B-leg Kittiwake	40		1200	5754	110		1															7105 ++	
Dovekie						2																2 -	
Common Murre	175	*	275	5	1	1	30															-	486 ±
Razorbill		2	115	23	1	25	*											7	29				202 +
Black Guillemot		8		234	65	115	4	505		21	18	452	350	201	352	6	142	44		74	37	4	6178 ±
Rock Dove		225		58	106	100	1	203	3	76	2	250	93	4	77	4	29	99	2	42	25		2526 +
Mourning Dove				1	4		*						1	1	*		1	1	6				7 ±
Grt Horned Owl		*																					10 ±
Snowy Owl																							*
North Hawk-Owl																							3 -
Barred Owl		*										*	2										2 ±
Short-ear Owl																							3 ±
N Saw-whet Owl		1				1																	3 ±
Belted Kingfisher				1																			1
Downy Woodpecker	2		2	11	3	2	4	22	12	8	2	13	15	9	1	6	5	3	1	3	5	*	397 +
Hairy Woodpecker	5		5	5	8	1		7	1	11	4	12	9	1	2	7	10	4		5	2	1	375 +
3-toed Wdpekr #						2																	5 +
Blk-bk Woodpecker		*		1		1		2				1	1	1								*	9 -
North Flicker						2							1	2									7 +
Pileated Wdpekr				2	2							3	13				35						48 +
Horned Lark						7		10		16	2	3	3	19	5	8				15			89 +
Gray Jay							2	5	7	24	12	1								5	1		262 ±
Blue Jay	23			57	48	24	4	87	11	36	32	164	128	55	91	26	83	55	3	20	64	12	3611 ±
American Crow	150			271	200	175	60	320	24	97	14	294	199	120	349	12	30	102	14	69	2		3788 ++
Common Raven	100			39	16	90	20	30	27	31	23	106	85	188	47	13	16	64	20	55	15	50	2788 ±
Blk-cap Chickadee	115			184	213	21	28	422	89	124	68	395	279	353	86	40	116	49	43	158	57	12	7945 +
Boreal Chickadee				8	4	4	1		38	42	2	2	34	38	1	2	6	26	21	14	2		316 -
Red-br Nuthatch	10			16	9	1		16	58	51	19	49	30	71	18	7	9	12	2	10	3		926 ++
Wh-br Nuthatch				2	2																		47 ±
Brown Creeper	2					*		1	*	3		2		3									37 ±
Carolina Wren							1																1 +
Winter Wren																							2
Gold-cr Kinglet	20			24	4	1	2	10	52	37	8	79	30	113	17	1	4	1	7	8	7		546 ++
T. Solitaire																							*
American Robin	*	4		635	3	80	1	140	*	7	63	6		32	32	1	*			*	*		1141 ++
No Mockingbird		3			*	3		4		1		4	1	1	1								20 +
American Pipit								1		1													2
Bohem Waxwing				1				*		10		8			290	*					24		1127 +
Cedar Waxwing				106		18		1		*													182 ++
No Shrike #		4		5	1	5	2	4		2	1	2	1	6	2		4			12	1	1	73 +
Eur Starling #																							*
Yellow Warbler	*	1400		984	327	3830	183	10805	10	366	214	2195	679	495	773	16	126	140	42	179	38	40	28898 ++
Yel-rn Warbler																							*
Pine Warbler								*				*	3	1	126	1							127 +
North Cardinal	2				1	1		2						1									4 +
Auf-sid Towhee								1															20 +
																							3 +

1991-92 CBC	GMRC	MSR	GM	E-C	SEA	BH	Lap	SJ	FNP	R-A	Hil	Min	Sec	CJ	Sid	KNP	Tra	Lam	Mis	Car	Bst	Dal	NB Tot
A Tree Sparrow	2	75		61	14	12	13	37	2	41	3	30	65	49	10	17	2	1		1			1645 ±
Chipping Sparrow	2																						4
Savannah Sparrow																							1
Fox Sparrow																							2 ±
Song Sparrow #	33			8	1	12	14	2	3	3	1	1	6	2	4					1			101 ±
Swamp Sparrow	3			1																			5 ±
Wh-thr Sparrow	6			3	1	8	1	13	1	6	*	*								2			52 ±
Wh-crn Sparrow	2																						3 ±
Dk-eyed Junco	4	30		48	5	25	30	29	24	38	86	55	93	28	1					1			778 ±
Lapland Longspur	*						*																2 ±
Snow Bunting	*						*																5321 ±
Red-w Blackbird	8						1	3		254	195	4	760	1	48	261	256	676	609	296	20		28 ±
Red-w Blackbird	1									1					*								2 ±
EMendowlark																							2 ±
W Meadowlark																							1 -
Rusty Blackbird																							*
Brewer's Blackbird																							1 -
Common Grackle	10						3	1	9	2		5	4	9	1						1		65 ±
Brd-bd Cowbird	20						13	13		1		10	5	3									67 ±
Northern Oriole																							4 ±
Pine Grosbeak																							594 ±
Purple Finch																							220 ±
House Finch																							34 ±
Red Crossbill																							24 ±
Wh-w Crossbill																							1400 ±
Cem Redpoll #	25			61	2	11	3	16	833	169	134	974	377	14159	236	1244	508	78	1181	19	24	5	25092 ±
Hourly Redpoll																							*
Pine Siskin																							1696 ±
Am Goldfinch #	100			116	97	10	1	29	151	109	63	108	4	51	83	162				*	1	12	5675 ±
Eve Grosbeak #	*	235		41	360	112	88	869	66	212	127	1683	710	169	723	121	187	198	61	128	64	2	19326 ±
House Sparrow	20			87	30	11	73	13	36	35	55	381	78	18						57	11	6	3432 ±
Unidentified																							208
TOT. BIRDS	252	787	10007	16369	4150	7171	1057	16813	1870	3160	1267	12014	5636	19110	4350	2402	2561	2694	2648	1525	538	541	174574
TOT. SPECIES	5	10	64	61	50	76	36	67	39	53	33	52	53	53	42	35	32	35	28	28	31	19	121
Add. spp. in per.	7	6	2	1	9	6	6	8	2	10	3	3	3	7	7	3	7	3	3	3	2	11	
Hrs on foot	4	4	2	2	2	4	1	22	34.5	36	5	42	34	39	10	23	9	8	23	6.5	5	4	630
Hrs by car	25	25	30	8	10	15	7.25	39.5	12	17.5	9	59	25	17.5	20.5	5	25	37.5	14.5	25.5	12	2	803
Hrs otherwise	1.5 b	4 k	1 b																				12
TOT. HOURS	1.5	8	30	32	10	15	8.25	61.5	46.5	53.5	14	101	61	56.5	30.5	28	34	46	38	32	17	6	1444
Km on foot	3	10	3	3.2	10	10	2	38	76	60	8	85	38	68	20	70	19	17	36	14	15	12	1264
Km by car	280	392	60	392	60	258	121	515	204	310	132	863	535	288	412	99	391	414	168	294	12	50	12366
Km otherwise	25 b	10 b	10 b			8 b							9 s										58
TOTAL KM	25	3	300	395.2	70	316	123	553	280	370	139	948	602	356	432	169	410	431	204	308	27	62	13688
Observers	1	1	8	12	5	3	3	19	16	15	3	42	21	14	19	10	12	11	15	9	7	2	534
Parties	1	1	4	3	4	2	1	11	7	8	2	15	6-10	5-10	5	7	6	5	5	4	6	2	264
Feeder reports	2			17			23	4	4	2	0	32	1			2	4	1					499

Abbreviations and Footnotes to the Tables:

Species name in boldface: first time on N.B. counts

Number in boldface: a local record high count (for areas counted four or more times)

Number in italics: no details or details not fully convincing

highest number a provincial record high count noted during CBC period (Dec. 14 to Jan. 2)

a by boat

b 1 woodpecker sp.

c including warbler sp.

d 36 birds sp.

e 1 woodpecker sp., 1 bird sp.

1 hawk sp., 59 gull sp., 19 sparrow sp., 19 finch sp., 20 bird sp. including 6.75 hours, 17 km sking

11 finch sp.

2 hawk sp.

4 hours on duty

m 2 woodpeckers sp., 35 finch sp., 1 songbird sp.

± by snowmobile

much above average numbers

above average numbers

near average numbers

below average numbers

much below average numbers

Abbreviations and Footnotes to the Tables:

Species name in boldface: first time on N.B. counts
 Number in boldface: a local record high count (for areas counted four or more times)
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highest number a provincial record high count noted during CBC period (Dec. 14 to Jan. 2)
 * by boat
 b 1 woodpecker sp.
 c including warbler sp.
 d 36 birds sp.
 e 1 woodpecker sp., 1 bird sp.
 f 1 woodpecker sp., 35 finch sp., 1 songbird sp.

± 1 hawk sp., 59 pull sp., 19 sparrow sp., 19 finch sp., 20 bird sp.
 ++ including 6.75 hours, 17 km skiing
 ± 11 finch sp.
 - 2 hawk sp.
 - 4 hours on duty
 - 2 woodpeckers sp., 35 finch sp., 1 songbird sp.

by automobile
 ± much above average numbers
 ++ above average numbers
 ± near average numbers
 - below average numbers
 - much below average numbers

Paul Bogaard, Sandy Burnett, Roger and Lee Calkins, Tony Erskine, Stephen Flemming, Nev Garrity, Scott Gilliland, Peter Hicklin, Ron Housell, Colin MacKinnon, Helen Lines, Al Smith (compiler), Stuart Tingley.

Shediac (Shd) 41ème année

Le 29 déc., 09:00-16:00. Partiellement couvert; temp. -10° to -6° C; vent SO, 13 km/h. La terre et l'eau partiellement couvert.
Louis Babineau, Leigh Bateman, Josée Boudreau, Donald Cormier, Laurie Cormier, Donald Deschesnes, Marion Deschesnes, Raymond Doiron, Oscar Duguay, Joël Landry, Angèle Léger, Benoît Léger, Bernard Léger, Jacqueline Léger, Léopold Léger, Rose-Alma Mallet, Léo Martin (compiler), Onide Maurice, Léonie Roy, Edgar Savoie, Stuart Tingley. (Les Ami(e)s de la Nature).

Kouchibouguac National Park (KNP) 22nd year

Dec. 18, 08:30-13:00. Overcast with snow, stormy after 12:00; temp. -10° to -6° C; wind E, 10-20 km/h. Variable snow cover, 10 cm or less; open water mostly offshore.
Gilles Babin, Julie Camirand, Alvin Cormier, Bert Crossman, Gilles Daigle, Ursain Daigle, Odette Haché, Roland Léger, Benoît Richard (compiler), Fernand Richard, Pierrette Robichaud, Eric Tremblay.

Tracadie (Tra) 61ème année

Le 21 déc., 08:00-15:00. Ciel couvert, neige continue; temp. -10° to -4° C; vent SE, 5 km/h. Enneigé; rivière gelée (100%); mer non-gelée.
Denise Benoit, Gérard Benoit, Hilaire Chiasson, Rose-Aline Chiasson, Marcel David, Anita Doiron, Desanges Doiron, Léon Doiron, Robert Doiron, Guyline Drolet, Ernest Ferguson (compiler), Jean-Raymond Gallien, Jean-Yves Paulin, Marie Paulin, Yolande Paulin, Bruno St-Pierre, Gertrude St-Pierre.

Île Lamèque-Shippagan (Lam) 192ème année

Le 22 déc., 08:00-16:00. Ciel nuageux, légère précipitation de neige par moments; temp. -10° to -6° C; vent N-O, 10-20 km/h. Neige au sol 20 cm; eau de mer gelée à 50%.
Gérard et Denise Benoit, Hilaire Chiasson (compiler), Rose-Aline Chiasson, Marcel David, Desanges et Robert Doiron, Émile Ferron, Jean-Raymond Gallien, Donald St-Pierre, Gertrude St-Pierre.

Île Miscou (Mis) 51ème année

Le 14 déc., 08:30-16:00. Ciel clair; temp. -3° C; vent N-O, 0-15 km/h. Sol avec 2 cm de neige; surface aquatique gelée à 15% seulement.
Gérard et Denis Benoit, Hilaire Chiasson, Rose-Aline Chiasson (compiler), Patrick Chiasson, Roland Chiasson, Marcel David, Émile Ferron, Eric Ferron, Jean-Raymond Gallien, Christian Haché, Yannick Haché, Danny Jones, Georges Jones, Gertrude St-Pierre.

Caraquet (Car) 71ème année

Le 28 déc., 08:00-16:00. Ensoleillé avant midi, après-midi passages nuageux; temp. -10° to -5° C; vent 10-20 km/h. 20 cm de neige; eau gelée 95%.

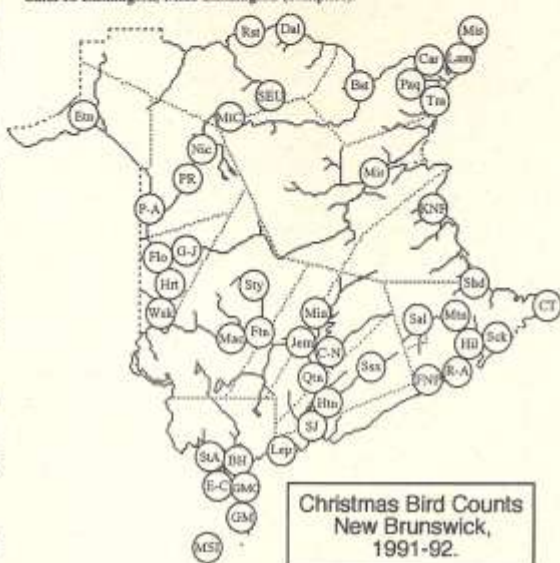
Gérard Benoit, Denise Benoit, Hilaire Chiasson, Roland Chiasson, Rose-Aline Chiasson, Marcel David, Jean-Claude Doiron (compiler), Donald St-Pierre, Gertrude St-Pierre.

Bathurst (Bst) 10th year

Dec. 28, 08:00-16:00. Clear; temp. 0° to -10° C; wind NW, 5 km/h. Ground frozen, snow cover 15 cm; water ?.
Bill Allen, Renée Bosca, Silvana Bosca, Dave Dow, Chris Gauthier, Mary Gauthier (compiler), Ron Gauthier, Tony Harwood, Bernice Henry, Susan Klenstead, Hazel Miller, Rod O'Connell, Doris O'Neill, Lorraine Power, Charlie McAleenan.

Dalhousie (Dal) 7th year

Dec. 31, 08:30-16:00. Clear; temp. -15° to -5° C; calm. Ground snow-covered; some ice on bay, rivers, etc. frozen.
Carla R. Lushington, Mike Lushington (compiler).



Nature News

Winter 1991-92

David Christie



Space allows touching only a few highlights. A big storm Jan. 31 to Feb. 2 dumped 161 cm of snow at Moncton; amounts declined farther north and west. Strong NE winds whipped the snow into 3-4 m drifts, blew many **Dovekies** in from the Gulf of St. Lawrence (see p. 3), and set **Robins** and finches on the move.

Mammals

A **Harbour Seal** lingered at Fredericton until the beginning of January (*fide* Peter Pearce), when it would have no choice but to attempt to winter in open runs above the city or below Mactaquac Dam.

Birds

Although missed on the CBC, **Brant** did winter at White Head Island (125 on Jan. 28 — BED). A **Ring-necked Duck** was relocated at Mactaquac in late

January (DG and DLM). **King Elders** were at Shediac Bay (SIT), Greens Point, near Letete (v.o.), and St. Andrews (Tracey Dean). A male **Harlequin Duck** was seen sporadically through the winter at Saint John (v.o.). An **Oldsquaw** was inland at Summerville, near Bayswater, Dec. 2 (Hank Deichmann).

The **Black Vulture** at Grande-Anse was seen until Dec. 2 (450-DUCK). An adult **Golden Eagle** again wintered near Riverside-Albert (v.o.). In December, one was seen at Greens Point (Ralph Eldridge). A gray **Gyr Falcon** spent the winter at Grand Manan (BED) and a dark bird at Moncton and Riverview (v.o.), where two were seen Feb. 21 (Brian Coates).

At Saint John a **Snowy Owl** entered the former Imperial Theatre—which is under renovation—and stayed 3 weeks catching all the pigeons inside (*fide*

Jim Wilson). There were **Hawk Owls** near Havelock (v.o.) and on Deer Island (SIT) in December. A **Boreal Owl** was found dead at East Saint John Feb. 8 (450-DUCK) and one seen at South Bay, Saint John, in March (Lloyd Foster).

A **Belted Kingfisher** spent December at a fish hatchery on the Northwest Miramichi (Vernon Goodfellow). A **Brown Thrasher** was regular at Bristol in January (Richard Renouf). Ron and Mary Gauthier's **Yellow-throated Warbler** at East Bathurst was captured Dec. 7, but died a few days later. A weak **American Redstart** was at Shediac Cape Dec. 3 (SIT) and a **Yellow-breasted Chat** at Sackville Nov. 30 to Dec. 4 (Chris Ellingwood). A male **Cardinal** was at St-Quentin from October through March (Adrien Bujold, *fide* Pat Émond). **Lapland Longspurs** were more reported in late winter than at Christmas (v.o.).

The big storm may have knocked down and buried many fruits and seeds. In February flocks of up to 60 **Robins** were reported at Riverview, Alma, Saint John and Grand Manan and there were numerous sightings of one's and two's in places where they had been little noticed during January. On Feb. 5, 8 or 9 **Flickers** passed through Alma and one came to our feeder at Mary's Point. **Bohemian Waxwings** were noted more commonly in southern N.B. during February, and small numbers of **Cedar Waxwings** were also wandering about.

There was a substantial flight of **Purple Finches**, particularly in the Fredericton area, where "large numbers appeared at feeders" from Feb. 3 (450-DUCK). **Pine Siskins** increased at the same time and soon became the most numerous bird at many feeders. On Grand Manan siskins appeared in numbers Feb. 16 (BED). Some of the many **Common Redpolls** began to visit feeders regularly then too. **Hoary Redpolls** were spotted at Fredericton Feb. 8 (Jim Edsall) and from Feb. 19 through mid March (May Bartlett and Margery Acheson), Harvey Feb. 21 and 27 (RJW), Plaster Rock Mar. 4 (Andrew Sharkey), and St-François Mar. 14 (DLM).

Many **White-winged Crossbills**, accompanied by small numbers of **Red Crossbills**, could be seen along the highway through Fundy Park during February (RJW).

Events

Annual Meeting at Campbellton May 22-24

Our 1992 annual meeting weekend will be hosted by the Restigouche Naturalists' Club at Sugarloaf Provincial Park May 22-24. The excellent program includes excursions to Heron Island, the Tide Head islands, Eel River Bar, and other sites of interest in the region. For details see last issue or phone 246-5572.

Proposed Amendment to the By-laws

In order to allow representation on the Board of more areas where there are not established clubs, a revision to the Federation's by-laws is to be considered by the 1992 Annual General Meeting. It is proposed that section 4.07, "The Board of Directors may appoint up to two Directors-at-large to serve on the Board. Directors-at-large shall be eligible to serve up to four successive one-year terms," be amended to read "...appoint up to four Directors-at-large..."

Portable Exhibit to Debut at Campbellton

Peter Pearce is preparing a portable tabletop display to advertise the Federation and local clubs. The 3-panel display will feature a map showing the location of the clubs and photographs of the main natural features of New Brunswick. The display, which will be available to clubs for use at festivals, trade fairs and other events, will have its first showing at the annual meeting.

June 1-7, Canadian Environment Week

June 14-17, International Atlantic Salmon Symposium "Salmon in the sea and enhancement strategies" at St. Andrews. Call Bonnie Grove Mockbee at 529-4578.

Abbreviations in "Nature News": 450-DUCK, N.B. Bird Information Line; BED, Brian Dalzell; DG, Don Gibson; DLM, David Myles; *et al.*, and others; RJW, Rob Walker; SIT, Stuart Tingley; v.o., various observers.

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