

Observations of Birds and Mammals at Bluenose Lake

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ABSTRACT: *Observations of birds and mammals at Bluenose Lake.* The birds and mammals observed during a biological exploration of Bluenose Lake, centred at 68°28'N., 119°45'W., are described. Thirty-five species of birds were seen, many of which were breeding, and many of which constitute range extensions. Eleven species of mammals were identified. A lack of variability in the habitat, for birds in particular, is probably the chief factor limiting the number of species.

RÉSUMÉ. *Observations sur les oiseaux et les mammifères du lac Bluenose.* On décrit les oiseaux et mammifères observés au cours d'une exploration biologique du lac Bluenose, par 68°28'N et 119°45'W. On a vu trente-cinq espèces d'oiseaux, dont beaucoup étaient en train de couvrir et dont nombre constituent des extensions de leur domaine connu. On a identifié onze espèces de mammifères. Un manque de variabilité dans l'habitat est probablement le principal facteur qui limite le nombre des espèces, surtout d'oiseaux.

РЕЗЮМЕ. *Птицы и млекопитающие в районе озера Блюноуз.* Приводится описание птиц и млекопитающих, отмеченных во время биологических исследований в районе озера Блюноуз (68°28'N, 119°45'W). Было зарегистрировано 11 видов млекопитающих, а также 35 видов птиц, многие из которых находились в стадии гнездования. Во многих случаях наблюдавшиеся виды птиц указывали на расширение их ареала. Однообразие местообитания (особенно для птиц), по-видимому, является главным фактором, ограничивающим численность видов в данном районе.

INTRODUCTION

From 4 August to 3 September 1953, I and James Mitchell of Hazel Hill, N.S., conducted a biological investigation by canoe of a large lake centred at 68°28'N., 119°45'W., in the Northwest Territories. We subsequently officially named it Bluenose Lake. We were studying barren-ground caribou (*Rangifer tarandus arcticus*) and their ranges for the Canadian Wildlife Service. At that time the lake was unmapped and generally unknown except to bush pilots, and there apparently have been no further biological investigations there. This belated note is prompted by the latter fact, and by the recent realization, that most of our breeding-bird records constitute range extensions, or are on the margin of breeding ranges, as shown by Snyder (1957) and Godfrey (1966). Technical nomenclature below follows Godfrey for birds and Hall and Kelson (1959) for mammals.

The general vegetation and topography around Bluenose Lake have been described by Kelsall (1968, pp. 94-98). The lake, up to 33 miles long and 12 miles wide, is situated at 1,800 feet above sea level in a large shallow basin in the

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Melville Hills. Because of its elevation the valley is less well vegetated than much of the Canadian mainland tundra; it contains many smaller lakes and ponds, particularly to the east and up to 6 miles from the main lake. We examined many of them.

During our circumnavigation of the lake we made every effort to identify all birds and mammals seen on the 28 days that weather permitted field work. We identified most of the predictable mammals, except red fox (*Vulpes fulva*) and wolverine (*Gulo luscus*), but the area was relatively poor in number of bird species. We recorded 35 species at Bluenose Lake, some of which were represented by only a single individual. In contrast, McEwen (1957) and Kelsall (1966) reported 56 bird species from Bathurst Inlet; Aleksiuk (1964), Sealy (1966), and Ryder (1967) reported 48 species from the Perry River region; and Macpherson and Manning (1959) reported 44 species from Adelaide Peninsula, although those observations were over longer periods of time. A number of species such as snow geese (*Chen caerulescens*), sandhill cranes (*Grus canadensis*), horned larks (*Eremophila alpestris*), or redpolls (*Acanthis hornemanni* and *A. flammea*), that might reasonably be expected, were not seen. The absence of some species could be correlated to an absence of varied habitat. Thus there were no extensive willow (*Salix* spp.) thickets such as are used extensively in the Coronation Gulf area by gray-cheeked thrushes (*Hylocichla minima*), white-crowned sparrows (*Zonotrichia leucophrys*), Harris's sparrows (*Z. querula*), and redpolls. There were no rock outcrops to provide nesting habitat for hawks, eagles, and falcons.

BIRDS

Yellow-billed loon (*Gavia adamsii*). Yellow-billed loons were distributed around the lake and had nested there, as evidenced by at least three observations of non-flying young. The number observed daily varied from 1 to 7, on each of 17 days.

Arctic loon (*Gavia arctica*). These loons were well distributed, mostly in smaller lakes inland from the big lake. Two flightless young birds were seen. The number seen daily varied from 1 to 3, on each of 10 days.

Red-throated loon (*Gavia stellata*). Red-throated loons were not common. Only 8 were seen, including 2 adult pairs accompanied by single flightless young.

Whistling swan (*Olor columbianus*). Swans were widely distributed in smaller lakes or in sheltered bays of the big lake. About 24 different birds were seen. Several pairs of adults were accompanied by flightless cygnets. Most pairs had only 1 or 2 young, but 1 pair had 4. The number seen daily varied from 2 to 7, on each of 10 days.

Canada goose (*Branta canadensis*). Geese were seen only twice during our 30 days on the lake. A flock of 15 was seen flying south on 15 August, and a larger flock was seen 3 September.

Mallard (*Anas platyrhynchos*). A single mallard drake was seen 16 August, as it flew from a small marsh.

Pintail (*Anas acuta*). Pintails, mostly drakes, were regularly seen on the north-west part of the lake until 15 August. The number seen daily varied from 2 to 9. After 15 August, none was seen.

Oldsquaw (*Clangula hyemalis*). While not numerous, oldsquaws were well distributed on small lakes and occasionally on the big lake. A number of groups of adults and young birds were seen. The number seen daily varied from 2 to 14 on each of 8 days.

King eider (*Somateria spectabilis*). Nine eiders were seen: all females or flying young of the year. These were locally-nesting birds, as evidenced by a recently used nest found on a rocky islet on the big lake.

Red-breasted merganser (*Mergus serrator*). Adult and young mergansers, mostly flightless, were seen on 4 days, mostly in the northern end of the lake. All appeared to be red-breasted mergansers. The number seen daily varied from 1 to 14.

Rough-legged hawk (*Buteo lagopus*). These hawks were widely distributed although were nowhere numerous. The absence of rock outcroppings and cliffs resulted in an inferior nesting habitat for them. However, observation of a number of young birds, including one that was dead, suggested some local nesting, probably on the ground. Many of the rough-legs were extremely pale in coloration. In some the head and breast appeared to be wholly white or cream-coloured, and one specimen, at a distance, was first believed to be a white gyrfalcon or a snowy owl. The number seen daily varied from 1 to 4, on each of 12 days.

Golden eagle (*Aquila chrysaetos*). An eagle was observed for some time, on 17 August, about halfway along the east shore of the lake. It was a juvenile bird.

Peregrine falcon (*Falco peregrinus*). On 28 August a pair of peregrines were seen on the east shore of the lake, pursuing a small passerine bird.

Willow ptarmigan (*Lagopus lagopus*) and rock ptarmigan (*Lagopus mutus*). Because summer plumage was only partially moulted by the time we left the area, it was difficult to separate the 2 ptarmigan species. However, both were identified on various days, and at least 1 mixed flock was seen. Some groups included young of the year. The number seen daily varied from 1 to 26 on each of 12 days.

Golden plover (*Pluvialis dominica*). These were observed most frequently in typical nesting habitat on high, dry tundra inland from the big lake, although towards the end of our stay a few appeared along the shores as migrants. A brood of two downy young was seen 6 August. The number seen daily varied from 2 to 15 on each of 6 days.

Black-bellied plover (*Squatarola squatarola*). Single black-bellied plovers were identified 9 August and 11 August, and a flock of 11 migrants was seen 28 August.

Pectoral sandpiper (*Erolia melanotos*). These were sparsely but widely distributed. Single broods of flightless young were seen 9 and 10 August. The number seen daily varied from 1 to 3, on each of 5 days.

Baird's sandpiper (*Erolia bairdii*). Up to 50 Baird's sandpipers, a common nesting species, were seen daily until 16 August. Thereafter the number seen daily diminished rapidly, and between 24 August, and 3 September only 1 was seen.

Semipalmated sandpiper (*Ereunetes pusillus*). These were mostly seen along the east shore of the lake and generally in small numbers or as single birds. However, on 15 August an estimated 40 migrants were seen.

Buff-breasted sandpiper (*Tryngites subruficollis*). A single buff-breasted sandpiper was seen 22 August on the margin of a small lake.

Sanderling (*Crocethia alba*). Very light-coloured shorebirds in groups of three were seen on 26 and 28 August. They were seen only in flight and for short periods. It appears reasonably certain, however, that they were sanderlings.

Northern phalarope (*Lobipes lobatus*). Eight of these birds were noted 11 August, in typical summer phalarope habitat, about the shores of a small lake. No others were seen.

Parasitic jaeger (*Stercorarius parasiticus*). These birds, including young which were just becoming proficient in flight, were commonly seen until 10 August. From 2 to 7 birds were seen each day. After 10 August, however, their numbers diminished rapidly, and from 17 August until 3 September only 6 were seen. Unidentified jaegers were also seen, sometimes as many as 10 a day.

Long-tailed jaeger (*Stercorarius longicaudus*). From 1 to 5 long-tailed jaegers and flying young were seen almost daily until 16 August. Their numbers then diminished even more remarkably than those of the parasitic jaegers, and between 17 August and 3 September only 2 were seen.

Glaucous gull (*Larus hyperboreus*). A few glaucous gulls were widely distributed around the lake. An adult with 3 flying young was seen near a recently used nest on 25 August. Only 1 or 2 were seen on each of 6 other days.

Herring gull (*Larus argentatus*). These, including young of the year, were among the most generally distributed birds encountered and, undoubtedly, nest commonly on islands in the lake. They were seen in numbers varying from 1 to 21 per day, on each of 25 days. On occasion these birds were a nuisance, eating anything inadvertently left uncovered outside the tent.

Arctic tern (*Sterna paradisaea*). Terns were not seen frequently but in some areas were abundant. They were noted both at suitable nesting areas, with flying young, and as migrants. From 2 to 40 per day were seen on each of 9 days.

Snowy owl (*Nyctea nyctea*). These birds were among the most common. Numerous pellets indicated that the owls were living almost exclusively on voles and lemmings, which were abundant. It was unusual to climb a hill and not see at least one owl. Several nests were observed, the number of young varying from 1 to 4 per nest. Until about 10 August some of the young still could not fly. The adults were wary and it was unusual to get within 150 yards of an adult. From 1 to 30 were seen per day.

Short-eared owl (*Asio flammeus*). On 4 August shortly after our arrival at Bluenose Lake, 1 short-eared owl was seen.

Raven (*Corvus corax*). The raven, generally well distributed and reasonably common on the barrens, was rare at Bluenose Lake. This may have been because of the absence of suitable nesting habitat. A pair was seen 7 August over the northwest part of the lake.

Water pipit (*Anthus spinoletta*). No pipits were seen until 15 August, suggesting that they nest uncommonly, if at all, in the area. Thereafter they were seen almost daily, sometimes in migratory flocks of several hundred birds. The number seen daily varied from 1 to 100 or more.

Tree sparrow (*Spizella arborea*). A single tree sparrow was watched for a considerable time on 15 August near the lake shore.

Lapland longspur (*Calcarius lapponicus*). These birds were the most commonly

seen. During the latter part of our stay many of them were clearly migrants and often they were mixed with flocks of migrating pipits. The species nests commonly in the area, as evidenced by used nests and frequently-seen young birds. Numbers seen per day varied from 1 to nearly 100, on each of 27 days.

Snow bunting (*Plectrophenax nivalis*). These appeared to be casual nesting birds in the area, but after 21 August we saw mostly migrants. The number seen varied from 1 to 30 or more per day, on each of 12 days.

MAMMALS

Arctic hare (*Lepus arcticus*). Hares were not seen during the investigations but fecal pellets showed that they occurred. A few weathered bones at one ancient Eskimo camp were believed to be those of a hare.

Arctic ground squirrel (*Spermophilus undulatus*). Ground squirrels were abundant and were seen, widely distributed, on 21 of the 30 days spent at Bluenose Lake. They were not seen on other days probably because bad weather restricted our movement from camp or because cold kept them inactive.

Tundra vole (*Microtus oeconomus macfarlani*). Voles were extremely abundant in well-vegetated swampy areas. On 19 August, we collected 5 by running them down as they travelled between burrows.

Back's lemming (*Lemmus trimucronatus*). Live Back's lemmings were not seen, but skulls were noted in snowy owl pellets and there was no reason to suppose that they were less common than collared lemmings.

Collared lemming (*Dicrostonyx groenlandicus*). These were well distributed, particularly on the west side of the lake, in dry tundra areas. In some places they had recently been extremely numerous. Only a few were seen, but burrows of the current year were everywhere. Our impression was that *Lemmus* and *Dicrostonyx* had just crashed from a periodic peak in abundance, and that *Microtus* was still at a peak.

Wolf (*Canis lupus*). Wolves were unexpectedly scarce in the area. We had been on the lake for 6 days before we saw a wolf track, and not until 19 August did we see the first wolf. Wolves were also seen on 24 and 25 August, in each case only 1 animal. All 3 were white, or nearly so. Tracks indicating a pack of wolves were seen on the east coast in two areas. A wolf visited one camp site in our absence and cleaned up the forequarter of a caribou left there.

Arctic fox (*Alopex lagopus*). Foxes were seen on 7, 10, 11, 18, and 28 August. The number of animals seen per day varied from 1 to 8. Fox tracks and scats were common and several den sites in current use were discovered. One den contained at least 7 young foxes. A few pieces of well-chewed caribou bone were found at den sites, but the animals were living on lemmings and voles. No red foxes were seen and there were no tracks which we could attribute to that species.

Barren-ground grizzly bear (*Ursus andersoni*). Grizzly sign was frequent about Bluenose Lake. It was scarcely possible to find a vantage point where some sign of bears having dug for small rodents could not be seen. In some places sections of hillside up to one-quarter mile by one-half mile had been systematically dug up for lemmings so that there were overturned sods and holes every few yards.

However, bears were encountered only twice. The first sighting was 6 August by Mitchell, and will be described below in the discussion on muskoxen. The point where the bear was seen was revisited on 7 August but it had left. The second was seen at the north end of the lake on 9 August. This animal was at a great distance across a river which barred closer approach. We watched it for some time as it moved along a hillside, digging for lemmings.

Short-tailed weasel (*Mustela erminea arctica*). Weasels were abundant and were seen at 3 of 9 campsites. At one camp a family came into the tent while we were sleeping and got into the food cache. The adult male of a family of 4 weasels was collected.

Barren-ground caribou (*Rangifer tarandus arcticus*). Caribou were not abundant. They were seen every day from 4 August to 3 September but the numbers were always small. On 2 days only 1 animal was seen, and the highest number seen on any one day was 37 animals. The total of 287 caribou gave an average of 9.6 animals per day. A detailed account of caribou at Bluenose Lake can be found in Kelsall (1968).

Muskox (*Ovibos moschatus*). It seems probable that the Bluenose Lake area is a regular summer range for muskoxen, and possibly a casual winter range as well. We saw muskoxen on 5 separate occasions. Four observations were of single adult bulls. The fifth sighting was of a herd of 25 animals. It is, therefore, considered that we saw 27 to 29 different muskoxen. We found no muskoxen, only tracks, on the east side of the lake. Tracks were frequent on the west shore, and probably indicated the presence of a number of animals which we did not see. A few, well-distributed winter-type faeces suggested to us that the animals are also present at least casually in winter.

On 6 August Mitchell walked inland some miles for a closer look at a lone muskox. He found the animal in a small, luxuriant river valley, feeding about the margin of a small pool. The animal, probably alarmed at his presence, ran 100 yards or so up the river bank. Alerted by the activity, a barren-ground grizzly erupted from a depression where it had been lying hidden and appeared to stalk the muskox. The bear was about 100 yards from the muskox and the two animals were less than one-quarter mile from Mitchell. The bear finally seemed to recognize the muskox as something it did not want to tackle and went back to its hiding spot; then the muskox returned to its feeding. There is no known record of a grizzly killing a muskox (Tener 1965).

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