

# Breeding Bird Observations in Northwestern Ontario

by  
Frederick M. Helleiner  
Mary Anne McGeachy-Currie  
Katie Thomas

## Introduction

This paper reports on bird observations made during two visits to the headwaters of the Severn River drainage basin, Kenora District, in northwestern Ontario in the early summers of 1984 and 1985, as part of the field work for the *Atlas of the Breeding Birds of Ontario* (Cadman *et al.* 1987). During a four-week period spanning late June and early July, 1984, McGeachy-Currie, with three other individuals, collected data at Big Trout Lake, Garret Lake and Bearskin Lake, all of which are situated at about 54°N, and between 89° and 92°W. From 6 to 13 June 1985, Helleiner and Thomas collected data at North Caribou Lake, at 52°45'N and 90°40'W (Figure 1). A number of significant observations, representing range extensions, are reported here. In addition, at North Caribou Lake, abundance indices were derived, based on the number of locations at which species were observed.

All of the areas in which observations were made occur in the northern boreal forest region on the

Canadian Shield. North Caribou Lake lies about 150 km south of the Hudson Bay lowland, while Big Trout, Garret, and Bearskin Lakes are approximately 70 km from the lowland. The Precambrian rock underlying the region is largely covered by glacial till. Sandy ground moraine dominates the North Caribou Lake area, both in the water, where many drumlins and a few rock outcrops appear as islands, and on the land, which has a relief of about 25 m. In the Big Trout, Garret, and Bearskin Lakes area, eskers provide additional relief to the nearly flat and poorly drained landscape.

The areas in which most of the field work was done can be categorized primarily as freshwater and littoral environments. The lakes have irregular shorelines and are often marshy in small bays. Beavers (*Castor canadensis*) are very active in the area, creating additional opportunities for the growth of marshes and bogs. *Sphagnum* sp. and Labrador tea (*Ledum groenlandicum*) occur not only at shore-

Frederick M. Helleiner, Department of Geography, Trent University,  
Peterborough, Ontario K9J 7B8

Mary Anne McGeachy-Currie, 18 Nishi-machi, Shogoin, Sakyo-ku, Kyoto  
606, Japan

Katie Thomas, 74 Chestnut Park Road, Toronto, Ontario M4W 1W7

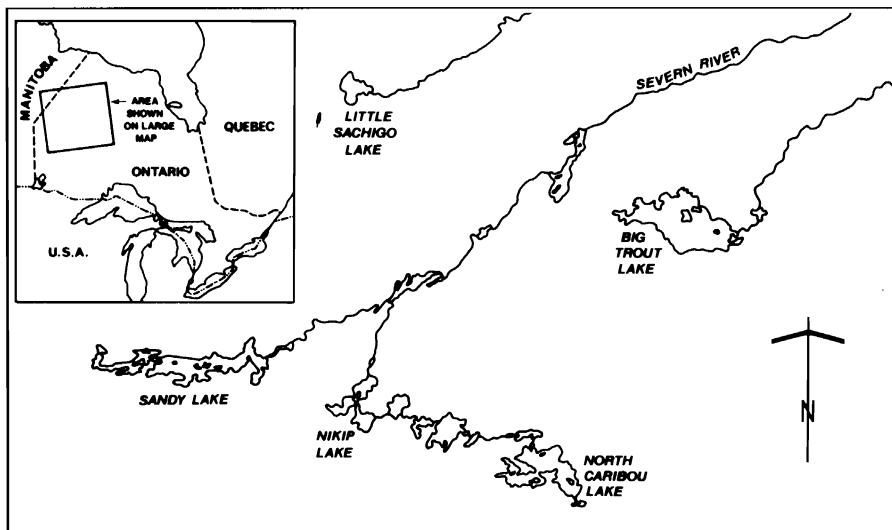


Figure 1: Severn River drainage basin, Kenora District

lines, but also inland in areas of excessively poor drainage. Most of the land is covered by a forest that is strongly dominated by 10 m high black spruce (*Picea mariana*), often in pure stands, with an undergrowth of *Sphagnum* sp., Labrador tea, and caribou moss (*Cladonia* sp.). Other tree species found in lesser numbers among the spruces are white birch (*Betula papyrifera*), balsam fir (*Abies balsamea*), jack pine (*Pinus banksiana*), trembling aspen (*Populus tremuloides*), balsam poplar (*P. balsamifera*), and tamarack (*Larix laricina*). Alder thickets (*Alnus* sp.) also occur in poorly drained areas. In the vicinities of Doubtful and Big Trout Lakes extensive areas of forest which were burned by recent forest fires had regrown to pure deciduous forest of varying heights. Apart from the town site of Big Trout Lake (about 1 square km, including the airstrip), newly burned areas, and the very limited areas of rock

outcrop, the largest clearings extend for only about 0.5 ha, in the vicinity of present or former seasonal human habitations.

Prior to this study, only limited published information existed on the bird life of this portion of Ontario. Annotated lists exist for Pickle Lake, Kenora District, situated 160 km to the south of North Caribou Lake (James 1980) and for Big Trout Lake (Lee 1978). Unpublished information is available for the Nikip Lake area, Kenora District, 80 km to the west of North Caribou Lake (Cringan 1950) and for a corridor that passes directly through the study area (McLaren and McLaren 1978). In addition, the *Atlas of the Breeding Birds of Ontario* (Cadman et al. 1987) reports, in somewhat less detail, on bird distribution data that were collected throughout northwestern Ontario during the period 1981-1985.

### Unusual Species

Several species were observed whose northern or southern range limits have previously been poorly known. Since all of these sightings were made during the breeding season, there is at least the possibility that these species breed in the area, and some of them constitute range extensions, according to published information.

Perhaps the most significant discovery was of two colonies of Ring-billed Gulls (*Larus delawarensis*). The first colony, located on a small rock island in Bearskin Lake, contained approximately 70 pairs of birds, about 80 percent of which were Ring-billed Gulls and the rest Herring Gulls (*L. argentatus*) and Common Terns (*Sterna hirundo*). Several groups of young gulls of various ages were floating in the water near the island. An island in North Caribou Lake contained about 30 Ring-billed Gull nests with eggs on 7 June 1985. Except for occasional reports of this species on the James Bay and Hudson Bay coasts (Manning 1952; Schueler *et al.* 1974; Speirs 1985), the only other observation north of Pickle Lake which has been reported in the literature is of a single bird observed at Little Sachigo Lake, Kenora District, on 24 June 1985 (Peterson 1985).

Five other species were found in surprising numbers for such a northerly location. Pied-billed Grebes (*Podilymbus podiceps*) were heard calling at both Garret Lake and Bearskin Lake, confirming an earlier report from the same latitude at Big Trout Lake (Lee 1978). A pair of Red-necked Grebes (*Podiceps griseigena*) was observed

in a marshy bay of Garret Lake. It is doubtful that the birds were nesting, for no young were present, and if they were incubating, they would not likely be together on open water in mid-June. A search for a nest proved fruitless. The species is known to breed only as far north as Sioux Lookout and Sandy Lake (Godfrey 1986).

Three male Common Goldeneyes (*Bucephala clangula*) were seen on North Caribou Lake on 11 June 1985 and an apparently mated pair were observed at the outlet of nearby Doubtful Lake on the following day. Prior to the surveys for the *Atlas of the Breeding Birds of Ontario*, during which Common Goldeneye was confirmed as breeding in several parts of the area, the only confirmed breeding record in that part of north-western Ontario was of a brood on the North Caribou River (Cringan 1950).

Common Grackles (*Quiscalus quiscula*) were found at each of the study locations, including two pairs at North Caribou Lake on 11 June 1985, whereas others have found the species scarce or absent in the area (e.g., Lee 1978).

Four Red Crossbills (*Loxia curvirostra*) flew overhead, calling repeatedly, near the north end of Doubtful Lake on 12 June 1985. Although this sighting is far to the north of where this erratic species is normally found breeding, Cadman *et al.* (1987) contains a few similar records. Large numbers of Red Crossbills had been prevalent throughout much of Ontario during the preceding few months, and hence this record is not altogether unexpected, especially in an area where

**Table 1:** Species observed singly near the northern limit of their known breeding ranges, northwestern Ontario, 1984-1985

SPECIES	REMARKS
Double-crested Cormorant ( <i>Phalacrocorax auritus</i> )	Observed twice at North Caribou Lake
Broad-winged Hawk ( <i>Buteo platypterus</i> )	Observed on a tall black spruce at Garret Lake
Boreal Owl ( <i>Aegolius funereus</i> )	Heard singing at night at North Caribou Lake
Pileated Woodpecker ( <i>Dryocopus pileatus</i> )	Garret Lake
Blue Jay ( <i>Cyanocitta cristata</i> )	Big Trout Lake Indian Reserve
Sedge Wren ( <i>Cistothorus platensis</i> )	Singing male in a spruce-tamarack bog, eastern shore of Bearskin Lake
Solitary Vireo ( <i>Vireo solitarius</i> )	Near Doubtful Lake on 12 June 1985
Northern Parula ( <i>Parula americana</i> )	Observed in a black spruce covered with <i>Usnea</i> sp. lichen adjacent to the shore of Garret Lake
Blackburnian Warbler ( <i>Dendroica fusca</i> )	Singing male on 9 June 1985 at North Caribou Lake
American Redstart ( <i>Setophaga ruticilla</i> )	UTM grid block 15XK (see Eagles and Cadman 1983)
Connecticut Warbler ( <i>Oporornis agilis</i> )	Bearskin Lake
Canada Warbler ( <i>Wilsonia canadensis</i> )	Singing male near the shore of Garret Lake

pine trees (albeit not their preferred species) are abundant.

A dozen additional species, observed only as single birds, are listed in Table 1, because they appear to be at or near the limits of their ranges, according to published information. It seems likely that most, perhaps all, of these species breed in the area, although we were able to obtain only circumstantial evidence, at best.

### Abundance Estimates

An additional facet of our 1985 study at North Caribou Lake was the determination of an abundance index for each species, based on the proportion of our 49 study locations where a species was observed. The derived index is less subjective than the standard abundance estimates prescribed for the *Atlas of the Breeding Birds of Ontario* (Eagles and Cadman 1983). It clearly has local usefulness for the study area,

as an indication of the likelihood of finding the species, but perhaps should not be used as a comparative tool, with the results being extrapolated to more far-ranging locations. It also ignores the actual number of individual birds which may have been present at any one place, such as a colony of gulls.

The 49 sites chosen for study in this manner (Figure 2) were selected to include the greatest variety of habitats which were easily accessible in the 10,000 square km block of land under study. This process was not done at random. An attempt was made to cover each habitat type on a regular basis. Because our mode of transport to the sites was primarily by a canoe equipped with an out-board motor, the most common sites visited, as already indicated, were the shoreline and "on water" environments. Consequently, these habitats had the greatest relative frequency of coverage. Inland sites were

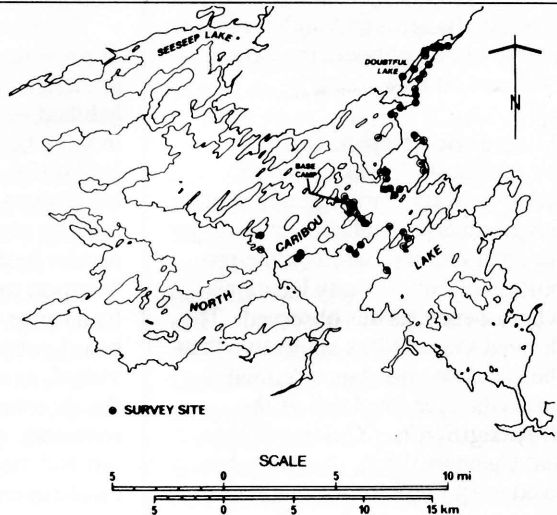
covered on foot. On each visit to a site, we remained until it appeared that no additional species were in evidence. The duration of the visit varied from a few minutes to almost an hour.

The attempt to provide regularity of coverage had importance as well for controlling the influence of weather on our findings. It was vital that, as much as possible, each site type was studied under different weather conditions. The presence of high winds or rain forced birds to seek shelter, while in the absence of these elements, bird song, foraging and other breeding activity were more evident. Thus the audibility and visibility of birds varied within the same habitats from one day to another. Moreover, on windy days wave conditions on the lake made it impossible for us to leave the base camp. Since birds can be identified audibly as well as visually, observations were made over a 24-hour period. However, the bulk of the observations were noted between 0500

and 1800h. Between 1800 and 0500h, bird identification was restricted to the area of the base camp and its island.

None of the species observed in the North Caribou Lake area could be termed ubiquitous in the region, since all of them were found at fewer than 50 per cent of the sites. The three which were the most widespread were Ruby-crowned Kinglet (*Regulus calendula*) and Northern Waterthrush (*Seiurus noveboracensis*), each of which were found at 21 of the 49 locations, and Yellow-rumped Warbler (*Dendroica coronata*), which occurred at 19 locations (Table 2). The 12 most abundant species, according to this criterion, were all passerines. The four most abundant non-passerines were Common Loon (*Gavia immer*), Herring Gull, Common Tern, and Red-breasted Merganser (*Mergus serrator*), which were found at eight, seven, seven and six of the sites, respectively. Seventeen species were found at

Figure 2: Survey sites (49) sampled, North Caribou Lake, Kenora District, 6-13 June 1985.



*Table 2: Abundance indices for species observed at North Caribou Lake, June 1985 (number of study sites where species found; n=49).*

**ABUNDANCE**

**INDEX**

**SPECIES**

21	Ruby-crowned Kinglet, Northern Waterthrush
19	Yellow-rumped Warbler
17	Yellow Warbler, White-throated Sparrow
15	Gray Jay
11	Swainson's Thrush, Magnolia Warbler
10	Least Flycatcher, Common Raven, Winter Wren
9	Fox Sparrow
8	Common Loon, Red-eyed Vireo
7	Herring Gull, Common Tern, Alder Flycatcher
6	Red-breasted Merganser, Philadelphia Vireo
5	Mallard, Common Merganser, Spotted Sandpiper, Black-backed Woodpecker, Northern Flicker
4	Common Nighthawk, Red-breasted Nuthatch, Wilson's Warbler, Song Sparrow, Dark-eyed Junco
3	Great Blue Heron, Ring-necked Duck, Osprey, Bald Eagle, Ruffed Grouse, Boreal Chickadee, Tennessee Warbler, Swamp Sparrow
2	Common Goldeneye, Bonaparte's Gull, Hairy Woodpecker, Tree Swallow, American Crow, Golden-crowned Kinglet, Cedar Waxwing, Chipping Sparrow, Common Grackle
1	Double-crested Cormorant, Green-winged Teal, White-winged Scoter, Common Snipe, Ring-billed Gull, Boreal Owl, Olive-sided Flycatcher, Solitary Vireo, Cape May Warbler, Blackburnian Warbler, Blackpoll Warbler, Black-and-white Warbler, Ovenbird, Red-winged Blackbird, Rusty Blackbird, Purple Finch, Red Crossbill

**Abundance Index for Species Confirmed as Breeding (Eagles and Cadman 1983)**

2	Herring Gull, Gray Jay
1	Mallard, Osprey, Ring-billed Gull, Hairy Woodpecker, Red-winged Blackbird

**Abundance Index for Species Probably Breeding (Eagles and Cadman 1983)**

6	Yellow Warbler
3	Mallard, Red-breasted Merganser, Red-eyed Vireo
2	Ring-necked Duck, Philadelphia Vireo, Common Grackle
1	Common Loon, Common Goldeneye, Common Merganser, Least Flycatcher, Swainson's Thrush, Chipping Sparrow

only one location. In terms of "probable" and "confirmed" breeding evidence, as defined by Eagles and Cadman (1983), the same abundance index can be applied, but with even less confidence as to how meaningful it is. Yellow Warblers (*Dendroica petechia*) were found to be at least "probable" breeders at six

locations, Mallards (*Anas platyrhynchos*) at four, and Red-breasted Mergansers and Red-eyed Vireos (*Vireo olivaceus*) at three. No other species was found breeding, with that level of certainty, at more than two of the 49 sites investigated.

In the light of previously published literature, the abundance of

certain species deserves further comment. Small groups of Common Mergansers (*Mergus merganser*), including an apparently mated pair, were seen on most days at North Caribou Lake, and, on the same lake, flocks of 20 or more Red-breasted Mergansers, as well as several apparently mated pairs, were regularly seen. The former species has bred at Nikip Lake (Cringan 1950), was described as "uncommon" on Little Sachigo Lake (Peterson 1985), but was not reported at Pickle Lake by James (1980) and only in small numbers by Lee (1978) at Big Trout Lake. Cringan (1950) is the only observer to have reported it as more common than the latter species.

We observed three adult and one immature Bald Eagles (*Haliaeetus leucocephalus*) at North Caribou Lake on 7 and 8 June 1985. According to several people familiar with the large lakes in the area, a number of occupied nests of this species have been found in previous years in the area, as recently as 1984 on Eyapamikama Lake, Kenora District. Perhaps surprisingly, neither James (1980) nor Lee (1978) saw Bald Eagles during their surveys, and Cringan (1950) saw only one.

Ruffed Grouse (*Bonasa umbellus*) were heard drumming at three different locations in the North Caribou Lake area, and one was seen by others several times on a wooded island in the lake. The fact that we found no Spruce Grouse (*Dendragapus canadensis*) in that area may simply reflect the fact that this species is not known to drum.

It may well be that there are actually more of the latter than of the former in the area. Similar numbers of Ruffed Grouse have been reported from the Nikip Lake (Cringan 1950) and Little Sachigo Lake (Peterson 1985) areas, but none from Big Trout Lake (Lee 1978). James (1980) found several nests or broods near Pickle Lake, and McLaren and McLaren (1978) found a nest on an island in Little Sachigo Lake, but none north of Echoing Lake. This limited evidence, together with its scarcity further north (Cadman *et al.* 1987), suggests that the Ruffed Grouse is approaching the northern limit of its range at North Caribou Lake, although breeding has been confirmed at an isolated location at least 200 km further north.

The Swainson's Thrush (*Catharus ustulatus*) was the only thrush found in the North Caribou Lake area, but it was very widespread, occurring at 11 of the sites and on every day of the survey. One individual indicated by its behaviour that it had a nest nearby. Although Cringan (1950) found this thrush "much less common than the Hermit [*C. guttatus*]", other observers in that part of northwestern Ontario agree that it is one of the most common species in the area (e.g., Peterson 1985).

Philadelphia Vireos (*Vireo philadelphicus*) were almost as common as Red-eyed Vireos at North Caribou Lake, where two apparently mated pairs were found. The former is also known from the Big Trout Lake, Pickle Lake and Sachigo River areas (Lee 1978; James 1980; Peterson 1985), but the

relative abundance of Red-eyed and Philadelphia Vireos is always difficult to determine because of the similarity between the songs of the two species. It is not inconceivable that some of the vireos which Cringan (1950) thought to be "presumably" Red-eyed might have been Philadelphia.

The Clay-colored Sparrow (*Spizella pallida*) was frequently heard in shrubs on the shores of Bearskin Lake. Until recently, this species was scarcely known to visit northwestern Ontario (James *et al.* 1976), but several records within the past decade (e.g., McLaren and McLaren 1981; Peterson 1985) suggest that this area is indeed within its breeding range.

Fox Sparrows (*Passerella iliaca*) were found singing at nine of the 49 locations in the North Caribou Lake area, making it the twelfth commonest species there. Its abundance at Big Trout Lake (Lee 1978) and its absence from Nikip Lake (Cringan 1950) and Pickle Lake (James 1980), as well as the pattern of records compiled for the *Atlas of the Breeding Birds of Ontario*, suggest that the population at North Caribou Lake is near the southern limit of its breeding range, except near James Bay. There is some discrepancy between the report by McLaren and McLaren (1978) which states, "The southernmost record was of a singing male near Lysander Lake" and their report (1981) which mentions, "Seven recorded in the Pickle Lake area (including singing males)," since Pickle Lake is slightly farther south than Lysander Lake.

## Acknowledgments

The authors are indebted to a number of agencies whose financial support and logistical assistance made the survey possible. The *Atlas of the Breeding Birds of Ontario*, a project of the Federation of Ontario Naturalists and the Long Point Bird Observatory, was the rubric under which the study was carried out. Its Provincial Coordinator, Michael Cadman, was instrumental in making all of the preliminary arrangements. The Ontario Ministry of Natural Resources, particularly through the Ontario Geological Survey, whose base camp we shared at North Caribou Lake, proved cheerful hospitality, both en route to the study area and while there, as well as providing the absolutely indispensable ground transportation in the area and invaluable information on local birds. Jim Bartlett and his crew at North Caribou Lake deserve particular thanks for their interest and support. Austin Airways assisted by offering us reduced-fare transportation. The basic transportation and other expenses of the senior author were covered by a grant from the Natural Sciences and Engineering Research Council of Canada, provided by Trent University. Those of the junior authors were covered by Northern Scientific Training Grants from the Department of Indian Affairs and Northern Development, provided by Trent University.



## Literature Cited

- Cadman, M.D., P.F.J. Eagles and F.M. Helleiner* (eds.). 1987. Atlas of the Breeding Birds of Ontario. University of Waterloo Press, Waterloo, Ontario.
- Cringan, A.T.* 1950. Notes on the birds of the Nikip Lake Area, Patricia. Unpublished report to the Ontario Department of Lands and Forests, Toronto
- Eagles, P.F.J. and M.D. Cadman.* 1983. Ontario Breeding Bird Atlas Guide for Participants. Revised edition. Ontario Breeding Bird Atlas Management Committee, Toronto.
- Godfrey, W.E.* 1986. The Birds of Canada. Revised edition. National Museums of Canada, Ottawa.
- James, R.D.* 1980. Notes on the summer birds of Pickle Lake, Ontario. Ontario Field Biologist 34:80-92.
- James, R.D., P.L. McLaren and J.C. Barlow.* 1976. Annotated Checklist of the Birds of Ontario, Royal Ontario Museum Life Sciences Miscellaneous Publications.
- Lee, D.* 1978. An annotated list of the birds of the Big Trout Lake Area, Kenora District. Ontario Field Biologist 32:17-36.
- Manning, T.H.* 1952. Birds of the west James Bay and southern Hudson Bay coasts. National Museum of Canada Bulletin 125:1-114.
- McLaren, P.L. and M.A. McLaren.* 1978. Studies of terrestrial bird populations in northwestern Ontario and northern Manitoba, June 1977. Unpublished report by LGL Limited for Polar Gas Project, Toronto.
- McLaren, P.L. and M.A. McLaren.* 1981. Bird observations in northwestern Ontario, 1976-77. Ontario Field Biologist 35:1-6.
- Peterson, J.M.C.* 1985. Birds of Little Sachigo Lake and Thome-Sachigo Rivers, Ontario. Ontario Birds 3:87-99.
- Schueler, F.W., D.H. Baldwin and J.D. Rising.* 1974. The status of birds at selected sites in northern Ontario. Canadian Field-Naturalist 88:141-150.
- Speirs, J.M.* 1985. Birds of Ontario, Volume II. Natural Heritage/Natural History Inc., Toronto.

# Nest Building by American Crows

by  
Tom Reaume

## Introduction

Various aspects of the nesting activities of the American Crow (*Corvus brachyrhynchos*) have been investigated. Good (1952) gave a general description of Ohio crows' nesting dates, tree species utilized and the materials of the nest. Emlen (1942) outlined his findings for colonially nesting crows in California, while Verbeek and Butler (1980) reviewed the benefits of helpers at the nests of Northwestern Crows (*C. caurinus*)

in British Columbia. The cooperative breeding of American Crows was also described by Kilham (1984).

This article deals briefly with the spatial and temporal gathering process of the materials used in nest building by a pair of crows in Guelph, Wellington County.

## Study area and methods

The Guelph Agriculture Centre is located along Highway 6, about 1 km north of Woodlawn Road in

Tom Reaume, P. O. Box 39, Ballinafad, Ontario N0B 1H0