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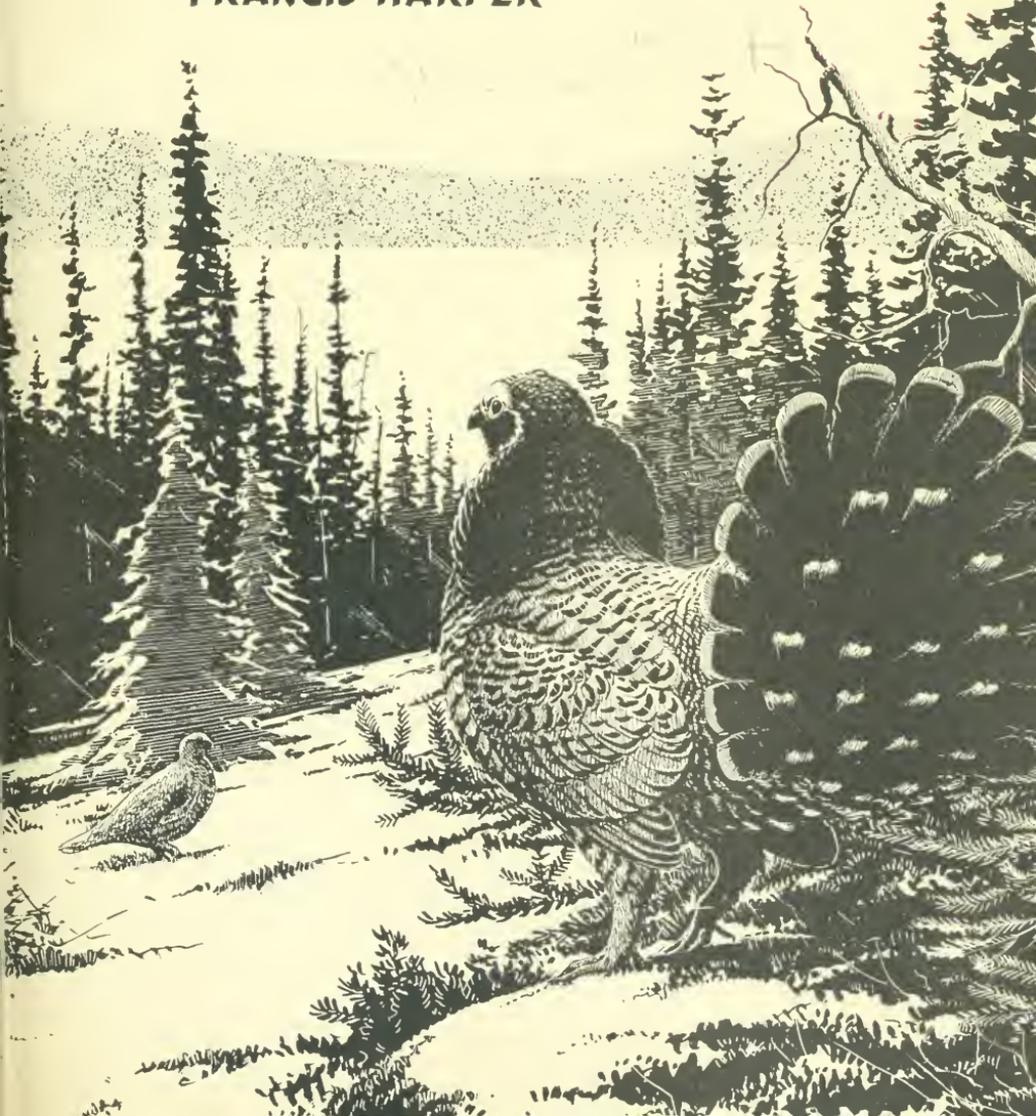
BIRDS OF THE UNGAVA PENINSULA

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FRANCIS HARPER



COVER: A male Hudsonian Spruce Grouse in autumnal
nuptial display in the presence of a female.

Drawing by Earl L. Poole.

To
Colonel Herbert L. Sey, Jr.
with the sincere regards of
Francis Harper

November 13, 1958.

BIRDS
OF THE UNGAVA
PENINSULA

BIRDS OF THE UNGAVA PENINSULA

BY
FRANCIS HARPER

Biological investigations in this region in 1953 were supported by the Arctic Institute of North America (under contractual arrangements with the Office of Naval Research) and by the Research and Development Division, Office of The Surgeon General, Department of the Army. The results have been prepared for publication under a grant from the National Science Foundation.

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INTRODUCTION

A more precise title for this report would have been "Birds of the Ungava Peninsula, Particularly of Its Central and Southern Portions." The shorter expression has been adopted as a friendly gesture toward hard-working librarians, bibliographers, and others engaged in serving zoological interests.

The Ungava Peninsula is bounded on the west by Hudson and James bays, on the north by Hudson Strait and Ungava Bay, on the east by the Atlantic Ocean, and on the south in part by the St. Lawrence (River and Gulf). Whether or not the southwestern limits of the peninsula have ever been authoritatively defined, they are set approximately, for the purpose of the present paper, at the Saguenay and Nottaway rivers. Thus the peninsula may be said to comprise, in addition to Newfoundland Labrador, about three-quarters of the Province of Quebec. The maximum length (Cape Wolstenholme to the mouth of the Saguenay) and maximum width (Cape Jones to Cape Charles) of the peninsula appear each to be approximately 1,000 miles. This territory is roughly equivalent to that of all of the United States east of the Mississippi River, with the exception of New England, Michigan, and Wisconsin. Owing to the difficulty of access to the interior except by plane, this portion of the peninsula has been, until recent years, a nearly blank space on the distributional maps of plant and animal species—an all but unknown land to biologists in general. For them, it may be said to have represented almost the last great frontier on the continent. The irresistible attraction of such a region lured me into it in 1953. The completion, in the following year, of a railway from Seven Islands to Knob Lake inaugurated a distinct new era of industrialization, with far-reaching consequences.

Previous ornithological investigations in the central portion of the Ungava Peninsula

Henry Connolly was a figure of some importance in the early years, although he has been quite overlooked by such chroniclers as Townsend and Allen (1907) and Austin (1932). Apparently he was the first man to supply bird specimens from the far interior. The United States National Museum still possesses, after nearly a century, some of his skins that were taken at Fort Nascopie on Petitsikapau Lake. Journals that he kept at this post from June 1, 1850, to July 12, 1853, are in the Hudson's Bay Company's archives. His

principal station, however, was evidently at Rigolet on Hamilton Inlet. His contributions to the Smithsonian Institution extended from 1857 to about 1874. I had hoped that there might be some illuminating bits of information about this Hudson's Bay Company officer among the Baird letters at the Smithsonian, but nothing has been found. (Most of the early records there were destroyed in a fire in 1865.) There is, however, some information about Connolly to be gleaned from various pages in the *Annual Reports of the Smithsonian Institution*, as follows: 1859:44, 79; 1861:60; 1862:71; 1863:36, 53, 59; 1864:82, 86, 108; 1865:101; 1866:26, 47; 1874:90; 1877:109. (For these references I am much indebted to Mrs. Austin H. Clark.)

Connolly's contributions consisted in large part of meteorological records. But from at least 1863 to 1866 there is acknowledgment of Labrador birds and eggs received from him. The shipment in 1863 "embraced specimens of the rare Labrador falcon, and others of much interest." In the *Annual Report for 1877* (pp. 105, 109) there is a "List of the more important explorations and expeditions, the collections of which have constituted the principal sources of supply to the National Museum." The name of Henry Connolly holds an honorable place in that list.

Through the good offices of Joseph Ewan, the following further information concerning this pioneer Labrador naturalist has been received from R. A. Reynolds, Secretary of the Hudson's Bay Company in London, to whom I make grateful acknowledgment. Mr. Reynolds writes to Professor Ewan (*in litt.*, January 12, 1956):

"According to our records Henry Connolly was a son of Chief Factor William Connolly and was born in the 'Indian Country.' He entered the service of the Hudson's Bay Company in 1838 as an Apprentice Postmaster and rose to the position of Factor. He retired in 1877."

Mr. Reynolds also sends a note on Connolly, "Chief Factor at Esquimaux Bay" [= Hamilton Inlet, that is, Rigolet], from an unknown source, although he suggests that the original is "likely to be found in the records of the Missions of the Oblates of Mary Immaculate in Quebec." This note is in the form of a letter from the Reverend Père Arnaud, Oblat de Marie, to his superiors. It is dated August 6, 1871, at Rivière des Naskopis:

"Mr. Connolly, le bourgeois en charge, eut la bonté d'envoyer deux hommes à notre rencontre. Je reçus chez lui la plus cordiale hospitalité. Je voyais ce bon monsieur pour la première fois, mais

quel homme aimable et prévenant! D'ailleurs ce n'est pas un étranger pour nous. Peut-être, dans vos voyages avez-vous rencontré quelques-uns de ses parents; il a une soeur à la Rivière-Rouge, chez les Soeurs de la Charité. Lui-même, après avoir fait ses études au Collège de Montréal, est entré tout jeune au service de la Compagnie. Il a passé la plus grande partie de sa vie dans les pays sauvages; mais il a trouvé le moyen de perfectionner ses connaissances; il a étudié la botanique, la minéralogie, l'histoire naturelle, et, à toutes ces connaissances, il joint l'amabilité la plus grande."

The date (1862 or 1863) of the Smithsonian's first receipt of ornithological specimens from Connolly is perhaps significant. For it was in 1860 that the youthful Elliott Coues arrived at Rigolet as a member of a summer's expedition to Labrador in charge of J. W. Dodge. His mission was to procure for the Smithsonian Institution specimens of birds and their nests and eggs. As he himself remarks (1861:215), "A few days were spent at Rigolet, a station of the Hudson Bay Company, in charge of Henry Conolly [*sic*], Esq., from whom were received some valuable meteorological statistics." What would have been more natural for Coues than to instruct the Hudson's Bay Company man in the preparation of bird specimens? Perhaps this was the spark that fired Connolly's zeal for sending ornithological material to the Smithsonian in the following years.

After Connolly's time, a much more considerable knowledge of the avifauna resulted from the labors of A. P. Low. In addition to his primary work of geological reconnaissance in several seasons in the 1880's and 1890's, he kept a record of the birds observed and he eventually published (1896) a briefly annotated list of 81 species. This has remained up to the present time the principal published source of information on the birds of the central interior of the peninsula. His list includes a small number of misidentifications (for example, *Larus glaucus* for *L. argentatus smithsonianus*). In the central interior Low makes most frequent mention of the Hamilton River (or upper Hamilton River); there are only one or two references each to Petitsikapau and Michikamau lakes and to East Main and Koksoak rivers. Peripheral localities in Low's report are Lake Mistassini (where James M. Macoun made the observations in 1885) and the Romaine and Northwest rivers.

Early in the present century Mrs. Leonidas Hubbard, Jr. (1906, 1908) and Dillon Wallace (1907) made canoe journeys from Northwest River to Michikamau Lake and thence down the George River to its mouth. Their narratives contain references to a few of the

larger birds met with. At the same period William B. Cabot (1912) made several inland journeys from the east coast, on one of them reaching Indian House Lake on George River; he, too, mentions a few species.

After having made two trapping trips in the fall and winter of 1930-1931 to the Grand Falls and the Winokapu Lake areas, Elliott Merrick (1933) contributes a few useful notes on the bird life found at those seasons in the Hamilton Basin.

Among the extensive ornithological explorations made by W. E. Clyde Todd in the Ungava Peninsula, from a beginning in 1901, at least two have reached the central portion. In 1917, in company with Olaus J. Murie, he traversed the peninsula from south to north. Beginning at Clarke City, he ascended the Marguerite River, passed through Menihék and Petitsikapau lakes, and descended the Swampy Bay, Kaniapiskau, and Koksoak rivers to Fort Chimo (Todd, 1939:199-200, map). (His visit to Fort McKenzie, on the lower Swampy Bay River, was pleasantly remembered 36 years later by the former manager of that post, Sebastien McKenzie.) In 1939 Mr. Todd and Mr. and Mrs. J. Kenneth Doult ascended the Hamilton River as far as Sandgirt Lake, and returned from that point (Todd, 1939). The ornithological world has long been awaiting the appearance of Todd's comprehensive and monumental work on the birds of the Ungava Peninsula.

In 1944 T. H. Manning (1947) made investigations at Mushalagan, Panchia, and Sawbill lakes in the central interior, and at Minto, Bush, and Scoter lakes, these last being situated within 100 miles of Hudson Bay. Two years later he made brief reconnaissances at Bienville and Kinglet lakes, in or near the basin of Great Whale River (Manning, 1949). During World War II Roland C. Clement was stationed at Indian House Lake on the George River. He has published (1949) a few of his observations, particularly on Gyrfalcons.

In 1951 and 1952, while engaged chiefly in a study of the mammals of the Knob Lake area, Dale J. Osborn collected a number of birds.

Investigations in 1953

My own itinerary during this season was as follows: May 20 to 22, Quebec to Seven Islands, by steamer; May 22 to June 2, Seven Islands and vicinity; June 3, Seven Islands to Knob Lake; June 3 to July 1, Knob Lake and vicinity, including a trip to Al's Lake and return on June 22; July 1 to 22, Attikamagen Lake; July 22 to August

2, Lac Aulneau; August 2 to 9, Knob Lake; August 9 to 18, Mollie T. Lake and vicinity (including Sunny Mountain); August 18 to 21, Leroy Lake; August 21 to 22, Knob Lake; August 22 to September 8, and September 18 to 21, Mile 224 Airstrip and vicinity; September 8 to 18, Carol Lake and vicinity (including Lorraine Mountain, September 11); September 21 to October 8, Knob Lake and vicinity; October 8 to 9, Knob Lake to Seven Islands, via Mile 224 Airstrip; October 9 to 13, Seven Islands and vicinity; October 13, Seven Islands to Rimouski, by steamer. All major travel, from June 3 to October 9, was by plane. My headquarters for the season were at the seaplane base on Knob Lake (pl. 1).

The present report includes personal observations along the St. Lawrence from the mouth of the Saguenay River to Seven Islands and vicinity, and in the interior from Ashuanipi Lake north to Lac Aulneau. Notes derived from others extend over a somewhat wider area within the bounds of the peninsula. As a matter of convenience, I am tempted, now and then, to apply the term "Ungava" to the entire interior north of approximately latitude 52° . In this I am following the old usage, prior to the setting up of the present (and still slightly vague) boundary between Newfoundland Labrador and Quebec.

Since some of the above-mentioned interior localities do not appear by name, if at all, on such maps as are widely available or accessible (particularly the National Topographic Series, produced by the Surveys and Mapping Branch, Department of Mines and Technical Surveys, Ottawa), the following list is presented, showing the latitude, longitude, and at least the approximate altitude of each one. The list is also extended to include still other localities, similarly obscure, that receive mention in the following pages without having appeared in previous ornithological literature. For my own localities, the latitude, longitude, and altitude given apply to the principal camp-site (if any) in each one. It will be understood that collections and observations were made at distances up to several miles from these centers. The altitudes supplied are no more than approximate, except for some of the larger lakes and a few of the higher summits. For the vicinity of Knob Lake I have prepared a sketch map (map 2), on which various minor features (Camp Brook, Camp Pond, Goldeneye Pond, Ruth Lake Ridge, and Sucker Creek) are supplied with personally bestowed and wholly unofficial names, in order to pinpoint the places where certain observations were made.

LABRADOR

	Latitude	Longitude	Altitude (feet)
Abel Lake	54°46' N.	66°47' W.	1,624
Ashuanipi Lake, N. end	53°00' N.	66°15' W.	1,750
Ashuanipi River, 2 mi. below Ashuanipi Lake .	53°02' N.	66°15' W.	1,740
Astray Lake (middle)	54°34' N.	66°30' W.	1,510
Attikamagen Lake, Iron Arm, NW. end	54°56' N.	66°39' W.	1,536
Attikamagen Lake, Northwest Bay	54°59' N.	66°41' W.	1,536
Carol Lake	53°04' N.	66°58' W.	2,000
Evening Lake	53°35' N.	66°15' W.	1,750
Gilling River (mouth)	54°39' N.	66°38' W.	1,510
Guy's River	54°43' N.	66°19' W.	1,520
Howell's River (mouth)	54°35' N.	66°40' W.	1,510
Julienne Lake	53°11' N.	66°46' W.	1,700
Lejeune Lake	54°46' N.	66°48' W.	1,635
Lorraine Mountain	53°06' N.	66°57' W.	2,955
Menihék Lake (middle)	54°10' N.	66°32' W.	1,570
Mile 198 (Q. N. S. & L. Ry.)	52°42' N.	66°04' W.	1,750
Mile 224 Airstrip	53°02' N.	66°15' W.	1,790
Molson Lake	53°23' N.	66°18' W.	1,620
Nip Lake	52°50' N.	67°10' W.	2,300
O'Brien Lake	53°02' N.	67°04' W.	2,000
Ossokmanuan Lake (middle)	53°26' N.	65°00' W.	1,550
Petitsikapau Lake	54°40' N.	66°25' W.	1,510
Ruth Lake Ridge	54°47' N.	66°50' W.	2,275
Slimy Creek	54°47' N.	66°49' W.	1,750
Slimy Lake	54°47' N.	66°50' W.	1,770
Stevens Lake	53°05' N.	66°57' W.	2,200
Sucker Creek	54°46' N.	66°48' W.	1,630
Wabush Lake (middle)	53°01' N.	66°52' W.	1,710
Whiteman Lake	53°10' N.	66°14' W.	1,675
Wishart Lake	54°44' N.	66°50' W.	1,840

QUEBEC

Al's Lake	55°17' N.	67°13' W.	1,500
Burnt Creek	54°49' N.	66°53' W.	1,900
Cambrian Lake (middle)	56°25' N.	69°07' W.	260
Camp Brook	54°48' N.	66°50' W.	1,650
Camp Pond	54°48' N.	66°50' W.	1,800
Dolly Lake	54°49' N.	66°46' W.	1,725
Dolly Ridge	54°49' N.	66°45' W.	1,900
Eric Lake	51°55' N.	65°40' W.	1,980
Fort McKenzie	56°50' N.	68°57' W.	250
Gad Lake	50°44' N.	65°17' W.	1,400
Geren's Mountain	55°05' N.	67°15' W.	2,821
Goldeneye Pond	54°47' N.	66°49' W.	1,775
Hanna's Lake	54°49' N.	66°42' W.	1,540
Harris Lake	55°07' N.	67°26' W.	1,730
Knob Lake	54°48' N.	66°49' W.	1,645
Lac Aulneau. On the Fort McKenzie map in the National Topographic Series. Known as Lake Marymac among the mining personnel.	57°01' N.	68°38' W.	510
Lac Hayot	55°04' N.	66°56' W.	1,590
Lac Le Fer	55°18' N.	67°20' W.	1,375
Lac de Morhiban	51°50' N.	62°53' W.	1,720
Lake Gerido	57°55' N.	69°30' W.	100
Lake Paterson	49°55' N.	72°05' W.	1,400
Lake Rasle	57°58' N.	69°28' W.	100
Lake Wapanikskan (middle)	56°57' N.	68°55' W.	720

	Latitude	Longitude	Altitude (feet)
Langland Falls	57°28' N.	76°44' W.	25
Lepage Lake	56°55' N.	68°33' W.	600
Leroy Lake	55°08' N.	67°14' W.	1,590
Manitou Lake (middle)	50°53' N.	65°17' W.	520
Mile 115 (Q. N. S. & L. Ry.)	51°37' N.	65°43' W.	1,900
Mile 127 (Q. N. S. & L. Ry.)	51°49' N.	65°48' W.	1,925
Mile 134 (Q. N. S. & L. Ry.)	51°55' N.	65°48' W.	1,950
Mile 142 (Q. N. S. & L. Ry.)	52°01' N.	65°43' W.	2,050
Mogridge Lake	52°48' N.	67°17' W.	2,000
Mollie T. Lake	55°02' N.	67°09' W.	1,625
Nachikapau Lake	56°40' N.	68°15' W.	560
Nemiscau River (headwaters)	51°48' N.	75°00' W.	1,100
Pierce Lake	54°48' N.	66°49' W.	1,630
Scott Lake	55°11' N.	67°24' W.	1,775
Sunny Mountain	55°03' N.	67°12' W.	2,700
Syncline Lake	55°07' N.	66°58' W.	1,690
Trough Lake	55°05' N.	66°55' W.	1,625

Physiography and vegetation

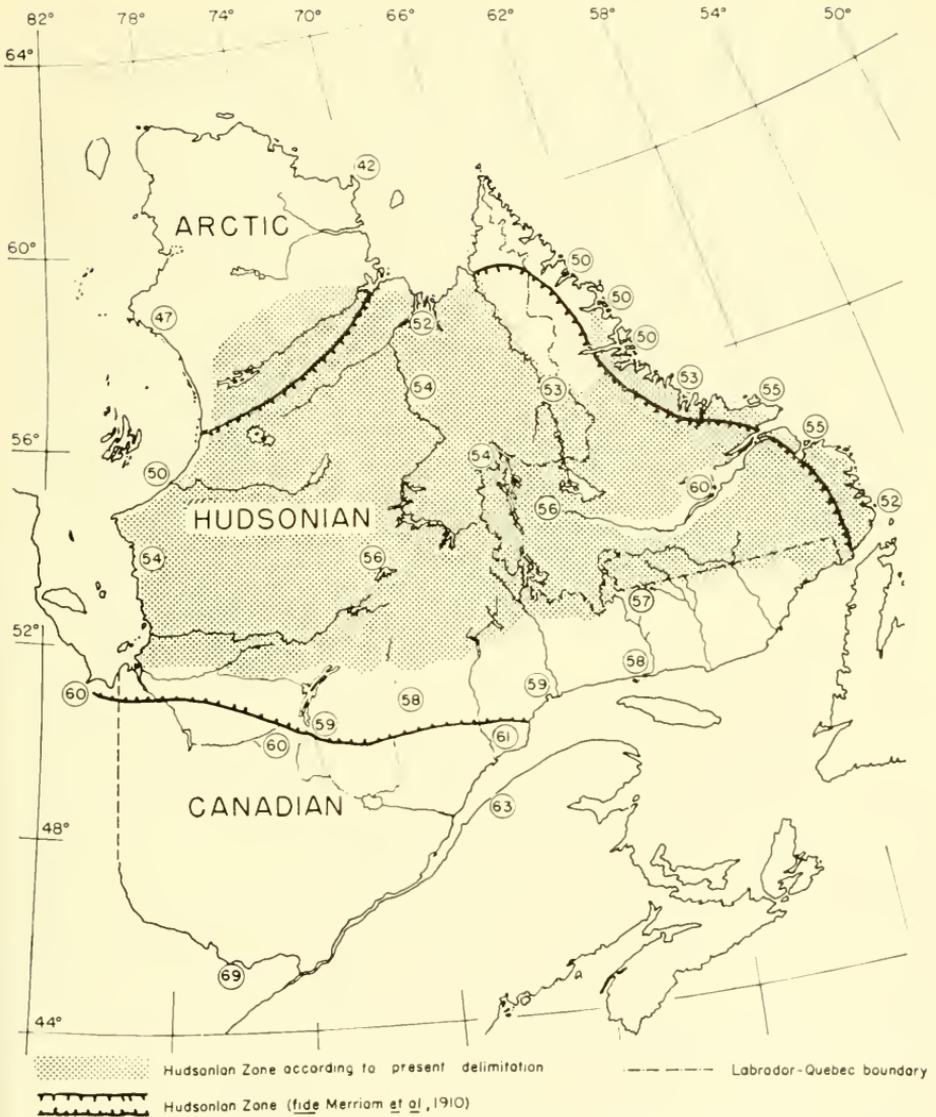
The present discussion will be brief, since a fuller treatment is planned for later publication. Furthermore, Hustich (1951*b*; 1954) has already presented some illuminating forest-botanical notes on the Knob Lake area; and to these is appended a catalogue of 253 species and varieties of vascular plants, by A. E. Porsild. More recently, Porsild's monumental "Illustrated Flora of the Canadian Arctic Archipelago" (1957), with 332 distributional maps, indicates the known places of occurrence of many plants on the Ungava Peninsula.

It will be noted from the foregoing list of localities that the altitudes at which I made investigations in the interior varied from about 510 feet in the north (approx. lat. 57°) to 2,955 feet in the south (approx. lat. 53°). Climatologically (and thus faunally and florally) the difference in latitude is compensated for, in large measure, by the difference in altitude. Everywhere, between these latitudes, the higher ridges rise from about 100 to several hundred feet above the tree-line, supporting an Arctic-alpine flora that I did not find to vary greatly except in one area of a few acres. This is adjacent to a perpetual snowbank filling a ravine on Sunny Mountain at an altitude of about 2,000 feet. It is apparently the coolness and the moisture derived from this snowbank that produces a veritable alpine garden, including a fair number of plant species that I found nowhere else. Tree-line is reached at about 2,500–2,600 feet on Lorraine Mountain, 1,900–2,000 feet in the vicinity of Knob and Attikamagen lakes, 1,900 feet on Sunny Mountain, and 900 feet near Lac Aulneau.

In the so-called "Labrador Trough" (*cf.* Hare, 1952:409, fig. 1; also Map 1045A, Geological Map of Canada, Geol. Survey Canada, 1955) of the central northern interior, the ridges are arranged more or less parallel to each other and they extend generally in a north-west-southeast direction. The intervening depressions are occupied by numerous lakes, streams, and bogs. The lowlands (at minimum altitudes of about 1,650 feet at Knob Lake, 1,540 feet at Attikamagen Lake, and 510 feet at Lac Aulneau) and the lower slopes of the ridges support a predominantly coniferous forest. The species are black and white spruce, tamarack, and balsam, with a small quantity of canoe birch and still less of balsam poplar. Willows, alder, dwarf birch, and Labrador tea make up the bulk of the shrubby undergrowth. For the most part the forest is fairly open (the "lichen woodland" of Hare and of Hustich), but here and there it becomes moderately dense as well as tall, with spruces up to 60-70 feet in height and 20-30 inches in diameter. The latter type is the "close-forest" of Hare (1950:622) or the "closed forest" of Dansereau (1955:85). Practically the entire terrain, except on the wave-washed, rocky shores of lakes and rivers, is covered with a luxuriant carpet of mosses and lichens.

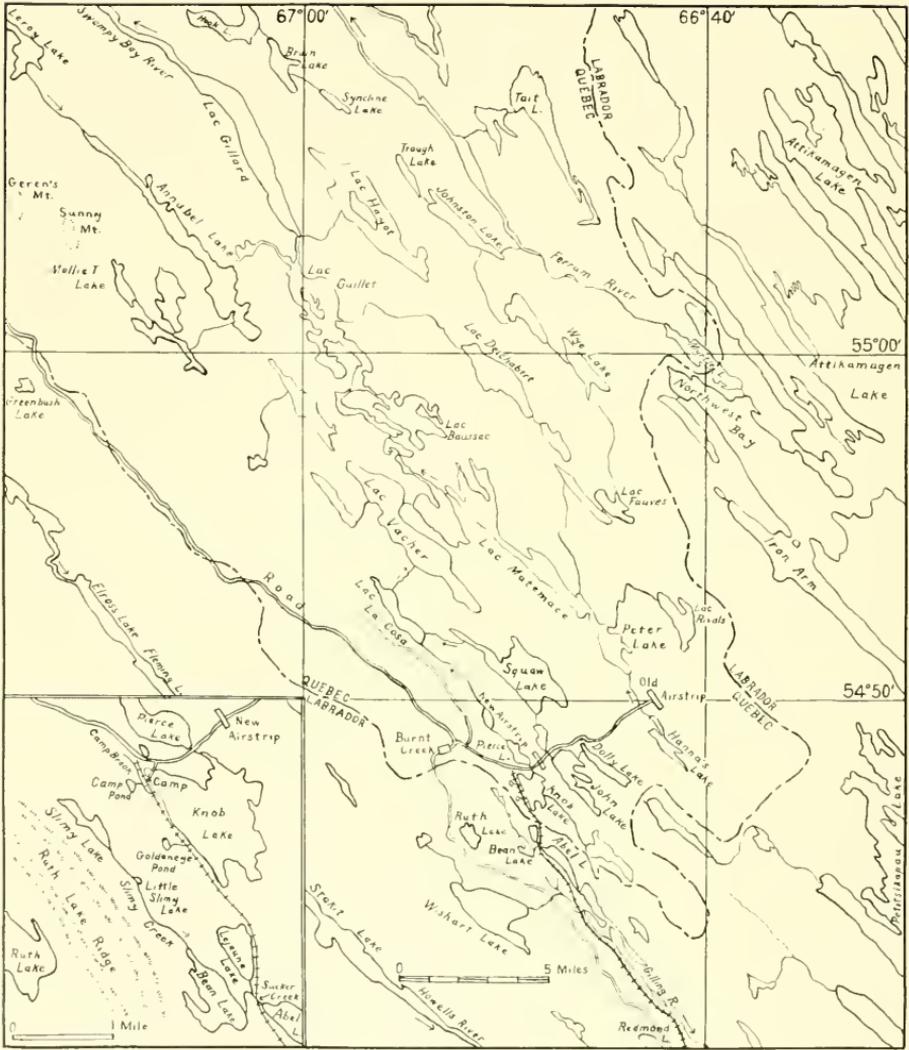
In the Ashuanipi Lake area of the open boreal woodland (*cf.* Hare, 1950:623-624, fig. 4), south of the Labrador Trough, the ridges and the intervening streams and lakes are somewhat less definitely arranged in parallel lines. Most of the forests resemble those in the Labrador Trough, but contain a considerably larger proportion of canoe birch. Two of my localities about 30 miles west of Ashuanipi Lake (Carol Lake and Lorraine Mountain) seem to lie actually within a southwestern extension of the Labrador Trough, but the forests there exhibit no striking differences from those about Ashuanipi Lake. Altitudes vary from about 1,750 feet on this lake to 2,955 feet on the summit of Lorraine Mountain.

The forested areas investigated, from Ashuanipi and Carol lakes northward, are part of the Hudsonian Zone. The transition to the Arctic-alpine areas (which takes place between timber-line and tree-line—*cf.* Hustich, 1949b:13) varies from abrupt to gradual in different localities. At the present early stage of my study of the vegetation, I confess I have been little impressed with differences in the general aspect of the forests in the taiga and in the forest-tundra regions of Hustich (1949a; 1951a). This impression may be discounted, however, if my northernmost locality (Lac Aulneau) in the Labrador Trough (Hare, 1952:407, fig. 1) is not in the forest-



Circled numerals indicate the approximate averages of daily mean temperature during the the six hottest weeks of summer at various meteorological stations

Map 1.—Life-zones of the Ungava Peninsula. (Outline constructed by Ralph S. Palmer, with permission, from American Geographical Society's maps 1:5,000,000.)



Map 2.—The Knob Lake area, Labrador and Quebec. (Redrawn from the Boundary Lake, Tait Lake, Elross Lake, Knob Lake, and Stakit Lake sheets of the National Topographic Series.)

tundra region, as indicated by Hustich, but in a long northern projection of the open boreal woodland, as indicated by Hare (1950: 617, fig. 4). In any event, Hustich (1949a:41) differentiates the Labrador Trough from the adjacent Ungava Forest-Tundra Section under the name of the Koksoak Forest-Tundra Section; here, he says, "the forest is of richer types than in the surrounding country." I am the more inclined toward Hare's classification from the fact that among all the vascular plants that I found in the forested area about Lac Aulneau, only one—*Ledum decumbens*—has not been recorded by either Hustich or myself in the general Knob Lake area. This situation may lend weight to Rousseau's opinion (1952:436) that the forest-tundra region is not a transitional habitat, but is made up of purely Arctic patches imprisoned in a network of sub-arctic forest strips (his "subarctic" being the equivalent of the open boreal woodland). Pitelka (1941:114, fig. 1) did not have available the results of the recent biological investigations in the interior of the Ungava Peninsula when he classified the Hudsonian Life-zone in that region as the "tundra-coniferous forest ecotone" (that is, a transitional area).

Certain herbaceous species of sufficient size to be conspicuous, such as *Iris versicolor*, *Thalictrum polygamum*, *Sarracenia purpurea*, *Clintonia borealis*, *Veratrum viride*, and *Sanguisorba canadensis*, were found in the Ashuanipi Lake area (taiga region or open boreal woodland), but not in the Knob Lake area or elsewhere to the north. None of these is reported by Hustich (1951b) from the Knob Lake area. In addition to these floral items, certain elements in the fauna of the Ashuanipi Lake area evidently do not extend north to Knob Lake. It is natural that there should be such gradation from south to north, rather than uniformity, in the plant and animal life of a region of such extent.

Changes in climate, faunal distribution, and life-zones

In a separate paper (in manuscript) on this subject I point out that there is "evidence of a more or less unmistakable and significant advance northward or northeastward in recent years" on the part of 29 species of birds inhabiting the peninsula. This trend is attributed to the amelioration of the climate that has been taking place during the past twoscore years or more. The evidence is supplied through the records of former and present distribution that appear in the following accounts of species. A new delimitation of life-zones in the Ungava Peninsula, as presented in the above-mentioned manu-

script, is shown on map 1. Special note should be made of the Canadian Life-zone outlier represented on maps 1 and 3-26 as occupying the lower Hamilton River basin.

Comparative abundance of bird species

The number of individuals of each species seen or heard by myself in each day through the season was recorded as faithfully and accurately as was feasible. The records here compiled are restricted to those obtained in the interior of the peninsula, from June 3 to October 8; they do not include those obtained along the Gulf of St. Lawrence. In many cases, where birds were settled for the breeding season in the vicinity of one camp-site or another, it is obvious that the total number of recorded observations exceeds the actual number of different individuals observed. In the following list, therefore, the first number accompanying the name of a species denotes the approximate number of recorded observations of individuals of that species; and the second number represents an estimate of the number of *different* individuals involved. The second number equals the first in some cases, but is naturally smaller in many other cases.

<i>Zonotrichia nigrilora</i>	366 — 196
<i>Turdus migratorius nigrideus</i>	204 — 160
<i>Perisoreus canadensis nigricapillus</i>	159 — 120
<i>Acanthis linaria linaria</i>	89 — 85
<i>Junco hyemalis hyemalis</i>	85 — 64
<i>Branta canadensis interior</i>	63 — 63
<i>Larus argentatus smithsonianus</i>	85 — 59
<i>Regulus calendula calendula</i>	75 — 55
<i>Euphagus carolinus carolinus</i>	84 — 52
<i>Eremophila alpestris alpestris</i>	45 — 45
<i>Totanus melanoleucus</i>	45 — 44
<i>Seiurus noveboracensis</i>	61 — 42
<i>Lagopus lagopus ungavus</i>	37 — 37
<i>Dendroica coronata coronata</i>	41 — 34
<i>Spinus pinus pinus</i>	32 — 32
<i>Parus hudsonicus hudsonicus</i>	34 — 30
<i>Spizella arborea arborea</i>	30 — 30
<i>Plectrophenax nivalis nivalis</i>	30 — 30
<i>Anas rubripes</i>	28 — 28
<i>Bucephala clangula americana</i>	35 — 27
<i>Mergus serrator serrator</i>	21 — 21
<i>Hylocichla minima minima</i>	31 — 20
<i>Canachites canadensis canadensis</i>	19 — 19
<i>Anthus rubescens rubescens</i>	21 — 18
<i>Iridoprocne bicolor</i>	26 — 17
<i>Pinicola enucleator eschatosus</i>	17 — 17
<i>Dendroica striata</i>	21 — 14
<i>Actitis macularia</i>	13 — 12
<i>Lanius excubitor borealis</i>	15 — 11
<i>Passerella iliaca iliaca</i>	14 — 11

<i>Loxia leucoptera leucoptera</i>	13 —	11
<i>Buteo lagopus sancti-johannis</i>	10 —	10
<i>Zonotrichia albicollis</i>	8 —	8
<i>Anas acuta</i>	8 —	8
<i>Anas carolinensis</i>	8 —	8
<i>Pandion haliaëtus carolinensis</i>	8 —	8
<i>Wilsonia pusilla pusilla</i>	11 —	7
<i>Capella gallinago delicata</i>	9 —	7
<i>Gavia immer</i>	8 —	6
<i>Bubo virginianus heterocnemis</i>	8 —	6
<i>Picoides tridactylus bacatus</i>	6 —	6
<i>Hylocichla ustulata swainsoni</i>	13 —	5
<i>Sterna paradisaea</i>	4 —	4
<i>Colaptes auratus</i> subsp.	3 —	2
<i>Erolia minutilla</i>	2 —	2
<i>Tringa solitaria solitaria</i>	2 —	2
<i>Megaceryle alcyon alcyon</i>	2 —	2
<i>Charadrius semipalmatus</i>	2 —	2
<i>Falco columbarius columbarius</i>	2 —	2
<i>Melanitta perspicillata</i>	2 —	2
<i>Hylocichla guttata faxoni</i>	2 —	2
<i>Passerculus sandwichensis</i> subsp.	1 —	1
<i>Melospiza lincolni lincolni</i>	1 —	1
<i>Dendroica palmarum hypochrysea</i>	1 —	1
<i>Sialia sialis sialis</i>	1 —	1
<i>Fulica americana americana</i>	1 —	1

It may be of interest in the present connection to examine a somewhat similar list that I have compiled (1953:11) for the vicinity of Nueltin Lake, Keewatin. The two lists are not strictly comparable, since the earlier one included a certain number of observations made by two of my associates; it also covered a longer period of time (May 31 to December 4, 1947), but most of the species in Keewatin had departed southward by early October. In that region, out of a total of about 66 species observed personally on a limited area, there were 12 with more than 100 recorded observations, and 7 others with more than 50 recorded observations. In Ungava, out of a total of about 55 species observed personally over a far greater area, the species in the corresponding categories numbered only three and seven, respectively. This emphasizes the comparative paucity of bird life in the interior of the Ungava Peninsula, as to both species and individuals. In Keewatin 4 out of the first 10 species, and 7 out of the first 19 species, are non-passerine; in Ungava 2 out of the first 10, and 6 out of the first 19, are non-passerine. In each region, among passerine species, a *Zonotrichia* is evidently the most abundant bird, while *Turdus migratorius* is second in one case and third in the other. In Ungava both of these species showed a marked predilection for the extensive burnt tracts during the breeding season; but in the vicinity of Nueltin Lake,

Keewatin, such tracts are of rather negligible extent and importance as bird habitats. Among the first 19 species on both lists, 8 or 9 are common to both, but 4 of these differ subspecifically.

French and Montagnais names of birds

In addition to the English names, I have supplied a few French names that I picked up in the field. It would be easy to borrow others from Dionne (1906) or Taverner (1919), but a large proportion of their names appear to be of a bookish sort—mere literal translations of the technical names, and obviously not sprung from, or nurtured on, the soil of habitant Quebec.

To the foregoing I have added as many of the Montagnais names as I was able to acquire. They were supplied mainly by Francis McKenzie (pl. 1), with supplementary advice from Sebastien McKenzie, Ben McKenzie, Jérôme St. Onge, and Kom Pinette. With the colored plates and the line drawings of Peters and Burleigh's *Birds of Newfoundland* before him, Francis McKenzie set down, in excellent printed script, the Montagnais names of many of these birds. The spelling is obviously phonetic, and probably not standardized as in a dictionary; hence the spelling may vary slightly in the versions offered by different individuals. A good many of the names have the appearance of being onomatopoeic; for example, those for the Old Squaw, Greater Yellowlegs, and Hudsonian Chickadee. Most of them bear a close resemblance to the Naskapi names published by Austin (1932). Since Francis McKenzie knew only the French language besides his native Montagnais, the generous services of Jean P. Labrecque, of the Royal Canadian Air Force, acting as interpreter, were most helpful in our conversations.

All of my Montagnais informants wrote out the names themselves. They doubtless owe their writing accomplishments to the Oblate Fathers of the Pensionnat Indien Notre-Dame at Moisie, a few miles east of Seven Islands. One of the latter, Père J. E. Beaudet, has rendered me great service in checking these Montagnais names, especially in the matter of the division of some of them into separate parts. He states that some are descriptive phrases rather than true names (see, for example, the explanations under *Hylocichla minima minima* and *Zonotrichia nigrilora*). He points out that the letters *n*, *l*, and *r* are used rather indiscriminately or interchangeably; *n* being used on the west coast of James Bay down to Maniwaki in southwestern Quebec, *l* from the east coast of James Bay to Seven Islands, and *r* on the coast of Labrador. (For example, the name of a fish—

the Burbot, *Lota maculosa*—was given to me in the variant forms *Meli*, *Meni*, and *Miri*.) Likewise, *p* and *b* are interchangeable, the former letter being preferred by the Montagnais. In the more westerly areas mentioned above, as about James Bay, the natives are Crees, close relatives of the Montagnais. Père Beaudet also points out that the letter combination *oa* is pronounced as *wa* in English.

Some of the birds for which I obtained Montagnais names did not come under my personal observation, and hence are not included in the accounts in the following pages. However, as a slight addition to a Montagnais *nomenclator avium*, they are given here:

<i>Oidemia nigra americana</i> —American Scoter	O momok
<i>Clangula hyemalis</i> —Old Squaw	A a oeo
<i>Histrionicus histrionicus</i> —Harlequin Duck	Nost paostokoeshish
<i>Lophodytes cucullatus</i> —Hooded Merganser	Oitoi moakosh
<i>Mergus merganser americanus</i> —American Merganser	Meste shok
<i>Accipiter gentilis atricapillus</i> —Eastern Goshawk	Kakaoapetak
<i>Totanus flavipes</i> —Lesser Yellowlegs	Tsheste pishish
<i>Calidris canutus rufa</i> —American Knot	Notapiskoeshish
<i>Plautus alle alle</i> —Dovekie	Tsikaoniss
<i>Cephus grylle atlantis</i> —Atlantic Black Guillemot	Tshimoshomash
<i>Nyctea nyctea</i> —Snowy Owl	Oapi kino
<i>Parus atricapillus atricapillus</i> —E. Bl.-capped Chickadee	Tipeikan pineshish
<i>Regulus satrapa satrapa</i> —E. Golden-crowned Kinglet	Kaioassi koniskoones
<i>Loxia curvirostra</i> —Red Crossbill	Oatshi koteshish

The fact of these species being known by name to the Montagnais of Seven Islands is a fair indication of their occurrence in that area.

Lemoine's *Dictionnaire Montagnais-Français* (1901) seems to include comparatively few names of the animals native to the Ungava Peninsula, as if the compiler were alike unfamiliar with the species and indifferent to their names. Furthermore, the names that we do find seem to represent a different dialect from that in use by the Seven Islands or Moisie band.

Names of plants

In the present report various plants are mentioned, sometimes by their technical names and sometimes by their common names. As a means of rendering their identification easier or more complete, both kinds of names are supplied in the following list:

MOSSES

<i>Sphagnum</i> spp.	Sphagnum moss
<i>Pleurozium schreberi</i>	A moss
<i>Polytrichum juniperinum</i>	Hair-cap moss

LICHENS

Cladonia alpestris (or other species) Caribou lichen

VASCULAR PLANTS

Equisetum limosum Horsetail
Lycopodium selago Mountain club-moss
Abies balsamea Balsam fir
Picea glauca White spruce
Picea mariana Black spruce
Larix laricina Tamarack
Pinus banksiana Jack pine
Potamogeton perfoliatus var. *bupleuroides* A pondweed
Festuca puvivipara Fescue grass
Poa alpigena Meadow grass
Deschampsia flexuosa Common hairgrass
Calamagrostis canadensis var. *langsdorfii* Blue-joint grass
Eriophorum tenellum Cotton grass
Carex brunnescens A sedge
Carex angustior A sedge
Carex pauciflora A sedge
Veratrum viride White hellebore
Clintonia borealis Yellow Clintonia
Smilacina trifolia Three-leaved Solomon's-seal
Iris versicolor Blue flag
Salix (uva-ursi?) (Bearberry?) willow
Populus tremuloides Quaking aspen
Populus balsamifera Balsam poplar
Myrica gale Sweet gale
Betula papyrifera Canoe birch
Betula glandulosa Dwarf birch
Alnus spp. Alder
Oxyria digyna Mountain sorrel
Cerastium alpinum Mouse-ear chickweed
Ranunculus trichophyllus White water-crowfoot
Thalictrum polygamum Tall meadow-rue
Cardamine pratensis var. *angustifolia* Cuckoo flower
Sarracenia purpurea Pitcher-plant
Potentilla norvegica var. *labradorica* Cinquefoil
Dryas integrifolia Dryas
Rubus chamaemorus Baked-apple berry
Sanguisorba canadensis Canadian burnet
Empetrum nigrum Crowberry
Myriophyllum alterniflorum Water milfoil
Cornus canadensis Bunchberry
Ledum groenlandicum Common Labrador tea
Phyllodoce caerulea Phyllodoce
Chamaedaphne calyculata Leather-leaf
Cassiope hypnoides Cassiope
Arctostaphylos alpina Alpine bearberry
Vaccinium uliginosum var. *alpinum* Alpine bilberry
Vaccinium angustifolium var. *laevifolium* Low sweet blueberry
Vaccinium vitis-idaea var. *minus* Mountain cranberry
Diapensia lapponica Diapensia
Menyanthes trifoliata Buckbean

The plant materials that I collected have been determined by specialists, as follows: mosses, by Edwin B. Bartram (1954); lichens, by W. L. Dix (1956); and vascular plants, by A. E. Porsild.

Summation of distributional records

For the Ungava Peninsula as a whole there has been only one summation of avian distributional records—that by Townsend and Allen (1907). In their treatment the southern boundary was “considered . . . as a line drawn from the south end of James Bay near latitude 51° easterly to the Gulf of St. Lawrence near Seven Islands in latitude 50° , and from there along the shore of the Gulf of St. Lawrence and the Straits of Belle Isle.” Thus their line of demarcation through the base of the peninsula, corresponding to that of Low (1896:19), is placed farther north than my own.

Geological history would appear to give support to a present setting of the boundary at the Saguenay and Nottaway rivers. (This boundary corresponds fairly closely to the one briefly indicated by Bell (1895:335)—extending from the mouth of Rupert River to Lake St. John at the head of the Saguenay River.) During the Champlain period of the post-Pleistocene, James Bay extended southeastward far up the basin of the Nottaway, while the Champlain Sea advanced toward it as far, at least, as the Lake St. John area. Possibly there was an actual marine connection across the height of land. (Cf. Potter, 1932; Marie-Victorin, 1938:549, fig. 61.) The base of the peninsula was far more constricted at that period, and in that region, than in Recent times. Migration routes now maintained by certain maritime birds, such as the Brant and the Black-bellied Plover, between the St. Lawrence and James Bay, may have become established under those post-Pleistocene conditions.

For various *parts* of the peninsula there have been distributional summations resembling that of Townsend and Allen, as follows: northeast—Hantzsch (1928–1929); Newfoundland Labrador—Austin (1932); Lake St. John area—Godfrey and Wilk (1948); Lakes Mistassini and Albanel—Godfrey (1949b); northwestern Ungava—Manning (1949); and east James Bay coast—Manning and Macpherson (1952). The comprehensive work in preparation by Todd renders it unnecessary to undertake at the present time any summation as detailed as his will presumably be. As far as coastal records are concerned, I have generally contented myself with a few indications of the extent of the range, in this region, of each species discussed. On the other hand, previous records from the interior of the peninsula are so scanty that it has seemed worth while to summarize them somewhat more fully. My particular object has been to indicate the relation of the records obtained in 1953 to the general dis-

tributional picture of each species in the peninsula. Since ornithology was only one of several phases of biology under investigation, the time that could be devoted to it was distinctly limited.

The distributional records of 24 species in the Ungava Peninsula are shown on maps 3-26. These have been compiled from the published literature and from new information offered in the present paper. No distinction is made here between records for the breeding season and those for other seasons of the year. Nor has any attempt been made to differentiate on the maps the ranges of two or more subspecies of the same species that may occur in the peninsula. Much more material will need to be assembled before the ranges of some of the subspecies can be accurately delimited.

Since boundaries between life-zones tend to be vague and ill-defined, as a result of gradual transition from one to another, they are represented on maps 3-26 not by a sharp line, but by a dotted band. Even this is not likely to comprise the entire width of the transition area. The unusual width of this area between the Arctic and the Hudsonian life-zones in the northwest of the peninsula indicates a mixture of tundra and forest over most of the basins of the Larch and the Leaf rivers. As for the numerous isolated patches of the Arctic-alpine Zone that occupy the ridges and summits rising above timber-line within the Hudsonian Life-zone in the central interior, they are too small to be indicated on these maps.

A long-standing looseness in the concept of the extent of Hamilton Inlet is a minor plague to biogeographers. Strictly speaking, the inlet extends no farther westward than The Narrows, on which Rigolet is situated; and the broad expanse of water stretching from that point some 85 miles southwestward to Northwest River and Goose Bay is Lake Melville (in bygone years known as Groswater Bay). Yet a considerable number of authors have applied the term "Hamilton Inlet" to the two bodies of water combined; and when they publish a record from that area with no information as to the exact locality, the reader is left in the dark as to which one of three life-zones is involved—Canadian at Northwest River and Goose Bay, Hudsonian at Rigolet, and Arctic at the seaward end of Hamilton Inlet.

Turner (1885:236, 239) places Northwest River "at the head of Hamilton Inlet." Low in various places (for example, 1896:123) does likewise. Tanner (1947, 2:609) actually means Lake Melville when he speaks of "the Kenamou River falling into Hamilton Inlet," as his own map (p. 585) plainly shows. Wynne-Edwards (1957:76) fixes Goose Bay "at the head of Hamilton Inlet." It is to be hoped

that biogeographers will hereafter restrict their "Hamilton Inlet" records to localities from Rigolet eastward.

An obscure point that has been mentioned occasionally in the literature, in connection with specimens collected by L. M. Turner in the 1880's, is The Forks; this is the junction of the Larch and the Kaniapiskau rivers.

*Zonal distribution of land and fresh-water birds
breeding in the Ungava Peninsula*

The birds treated in the systematic account on subsequent pages include approximately 84 land and fresh-water species that breed in the peninsula. At the present stage of investigations it is scarcely possible to assign all of them accurately to the particular life-zone or life-zones where their breeding areas lie. It should, however, contribute to our understanding of their zonal affiliations and requirements, even if we undertake no more than a tentative allocation. The following list does not, in general, take account of merely casual records, especially those outside of the breeding season.

	Canadian Life-zone	Hudsonian Life-zone	Arctic Life-zone
<i>Gavia immer</i>	x	x	x
<i>Gavia stellata</i>	o	x	x
<i>Ardea herodias herodias</i>	x	x [?]	o
<i>Botaurus lentiginosus</i>	x	x	o
<i>Branta canadensis</i> subspp.	x	x	x
<i>Anas rubripes</i>	x	x	x
<i>Anas acuta</i>	x [?]	x	x
<i>Anas carolinensis</i>	x	x	x
<i>Bucephala clangula americana</i>	x	x	?
<i>Melanitta perspicillata</i>	x [?]	x	x [?]
<i>Mergus serrator serrator</i>	x	x	x
<i>Buteo lagopus sancti-johannis</i>	x [?]	x	x
<i>Haliaeetus leucocephalus alascanus</i>	x	x	o
<i>Circus cyaneus hudsonius</i>	x	x	o
<i>Pandion haliaëtus carolinensis</i>	x	x	o
<i>Falco rusticolus obsoletus</i>	o	o	x
<i>Falco columbarius columbarius</i>	x	x	x
<i>Falco sparverius sparverius</i>	x	o	o
<i>Canachites canadensis</i> subspp.	x	x	o
<i>Bonasa umbellus</i> subspp.	x	x	o
<i>Lagopus lagopus</i> subspp.	o	x	x
<i>Lagopus mutus rupestris</i>	o	o	x
<i>Charadrius semipalmatus</i>	o	o	x
<i>Capella gallinago delicata</i>	x	x	o
<i>Actitis macularia</i>	x	x	o
<i>Tringa solitaria solitaria</i>	x	x	o
<i>Totanus melanoleucus</i>	x [?]	x	x [?]
<i>Erolia minutilla</i>	o [?]	x [?]	x
<i>Larus argentatus smithsonianus</i>	x	x	x
<i>Larus delawarensis</i>	o [?]	x	o
<i>Sterna paradisaea</i>	x [?]	x	x

	Canadian Life-zone	Hudsonian Life-zone	Arctic Life-zone
<i>Bubo virginianus</i> subspp.	x	x	o
<i>Surnia ulula caparoch</i>	o	x	o
<i>Strix acclamator acclamator</i>	x	o	o
<i>Aegolius funereus richardsoni</i>	o	x	o
<i>Megaceryle alcyon alcyon</i>	x	x	o
<i>Colaptes auratus</i> subspp.	x	x	o
<i>Dryocopus pileatus abieticola</i>	x	x	o
<i>Picoïdes tridactylus bacatus</i>	x	x	o
<i>Empidonax flaviventris</i>	x	x	o
<i>Eremophila alpestris</i> subspp.	x	x [?]	x
<i>Iridoprocne bicolor</i>	x	x	o
<i>Perisoreus canadensis</i> subspp.	x	x	o
<i>Corvus corax principalis</i>	x	x	x
<i>Corvus brachyrhynchos brachyrhynchos</i>	x	x	o
<i>Parus hudsonicus</i> subspp.	x	x	o
<i>Turdus migratorius</i> subspp.	x	x	o
<i>Hylocichla guttata faxoni</i>	x	x	o
<i>Hylocichla ustulata swainsoni</i>	x	x	o
<i>Hylocichla minima</i> subspp.	o	x	o
<i>Sialia sialis sialis</i>	x	x [?]	o
<i>Regulus calendula calendula</i>	x	x	o
<i>Anthus rubescens rubescens</i>	o	x [?]	x
<i>Lanius excubitor borealis</i>	o	x	o
<i>Sturnus vulgaris vulgaris</i>	x	x [?]	o
<i>Dendroica magnolia</i>	x	o	o
<i>Dendroica tigrina</i>	x	o	o
<i>Dendroica coronata coronata</i>	x	x	o
<i>Dendroica virens virens</i>	x	o	o
<i>Dendroica striata</i>	x	x	o
<i>Dendroica palmarum</i> subspp.	x	x	o
<i>Seiurus noveboracensis</i>	x	x	o
<i>Wilsonia pusilla pusilla</i>	x	x	o
<i>Passer domesticus domesticus</i>	x	o	o
<i>Euphagus carolinus carolinus</i>	x	x	o
<i>Quiscalus quiscula versicolor</i>	x	o	o
<i>Molothrus ater ater</i>	x	x	o
<i>Carpodacus purpureus purpureus</i>	x	x	o
<i>Pipilo erythrophthalmus erythrophthalmus</i>	x [?]	x	o
<i>Acanthis linaria linaria</i>	x [?]	x	x
<i>Spinus pinus pinus</i>	x	x	o
<i>Loxia leucoptera leucoptera</i>	x	x	o
<i>Passerculus sandwichensis</i> subspp.	x	x	x
<i>Junco hyemalis hyemalis</i>	x	x	o
<i>Spizella arborea arborea</i>	o	x	x
<i>Spizella passerina passerina</i>	x	o	o
<i>Zonotrichia nigrilora</i>	x [?]	x	x
<i>Zonotrichia albicollis</i>	x	x	o
<i>Passerella iliaca iliaca</i>	o [?]	x	o
<i>Melospiza lincolnii lincolnii</i>	x	x	o
<i>Melospiza georgiana ericrypta</i>	x	x	o
<i>Melospiza melodia melodia</i>	x	x	o
<i>Calcarius lapponicus lapponicus</i>	o	o	x
<i>Plectrophenax nivalis nivalis</i>	o	o	x

x = present

o = absent

Among the 84 species listed above, only the following seem to reach their northern breeding limit in the Canadian Life-zone of the peninsula:

Falco sparverius sparverius
Strix acclamator acclamator
Dendroica magnolia
Dendroica tigrina
Dendroica virens virens
Passer domesticus domesticus
Quiscalus quiscula versicolor
Spizella passerina passerina

The following, as far as known, breed here only in the Hudsonian Life-zone:

Larus delawarensis
Surnia ulula caparoch
Aegolius funereus richardsoni
Hylocichla minima subsp.
Lanius excubitor borealis
Passerella iliaca iliaca

And the following only in the Arctic Life-zone:

Falco rusticolus obsoletus
Lagopus mutus rupestris
Charadrius semipalmatus
Erolia minutilla
Calcarius lapponicus lapponicus
Plectrophenax nivalis nivalis

A majority (about 48) of the species breed in both the Canadian and the Hudsonian life-zones, and about nine of these in the Arctic Life-zone as well.

Certain species, such as *Gavia stellata*, *Lagopus lagopus* subsp., *Charadrius semipalmatus*, *Eremophila alpestris alpestris*, and *Anthus rubescens rubescens*, which are at least more characteristic of the Arctic Life-zone than of any other at the breeding season, even if not then altogether restricted to it, have been reported at various times as nesting along the North Shore of the Gulf as far west as the Cape Whittle-Natashquan-Mingan section. Presumably their local nesting grounds are on more or less treeless offshore islands, where conditions may approach those of the Arctic Life-zone as to vegetation rather than as to temperature. It has not been feasible to indicate this approach to Arctic conditions, or even the islands themselves, on such small-scale maps as 1 and 3-26.

Nomenclature, measurements, weights, plumages, color terms

In these matters I have followed the same general practice as in a previous publication on the birds of Keewatin (1953:12). The A. O. U. *Check-list of North American Birds*, fifth edition (1957), has been an acceptable guide in most but not all cases, since it has abandoned the former adherence to the International Rules of

Zoological Nomenclature and has reverted to the ancient A. O. U. Code of Nomenclature.

For most specimens, weights are expressed in grams (g.), but for a few large birds the weights are expressed in pounds.

Capitalized color terms are derived from Ridgway (1912).

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I would express my cordial appreciation to E. W. Baker, of the Entomology Research Branch, Agricultural Research Service, United States Department of Agriculture, for determining the mites (Acarina); to C. F. W. Muesebeck, of the same organization, for determining the biting lice (Mallophaga); and to Lt. Col. Robert Traub, of the Department of Entomology, Army Medical Service Graduate School, for determining a flea (Siphonaptera). The records of these ectoparasites and their hosts appear in the pages that follow.

W. Earl Godfrey, of the National Museum of Canada, T. H. Manning, of the Arctic Institute of North America, and Ralph S. Palmer, of the New York State Museum, have generously undertaken a

critical reading of the paper in manuscript. In addition Dr. Palmer has provided a number of useful references and has constructed the outline of map 1 from the American Geographical Society's maps 1:5,000,000, with the kind permission of that society. The basic outline of maps 3-26 was redrawn, with permission of the Geological Survey of Canada, from Map 1045A, Geological Map of Canada (1955).

The bird specimens collected have been presented to the United States National Museum and the National Museum of Canada, in grateful recognition of courtesies and assistance received.

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ACCOUNTS OF SPECIES

The following list does not include all the species that have been recorded from the region. It is restricted to those on which I made personal observations or on which I secured information from sources other than the published literature.

Gavia immer (Brünnich) Common Loon. (Map 3.)

The numberless clear lakes in the interior of the Ungava Peninsula, provided with ample islet nesting-sites, harboring great quantities of fishes, and for the most part quite undisturbed by man, would appear to constitute an ideal summer haunt for the Common Loon. Nevertheless, this environment must be deficient in some rather essential requirement, or it must include some unfavorable factor, as yet undetermined, for the species seems unusually scarce. (By way of contrast, I noted Common Loons almost daily in the summer of 1914 on the lakes and rivers between Athabaska and Great Slave lakes, where the fish fauna corresponds fairly closely to that of the Ungava interior.)

On a low, rocky islet in Attikamagen Lake, near the entrance to the Iron Arm, I found on July 13 a nest with two eggs, approximately 3.5×2 inches; they were dark olive, with rather evenly distributed small, darker blotches. The nest was composed of moss, available on the islet. The old birds were not in evidence. The islet, about 50 yards by 50 feet, accommodated also one nest each of the Herring Gull and the Arctic Tern.

On the morning of August 15 an individual passed southeastward over Mollie T. Lake, about 500 feet up, giving its wild cry of *wha-ha-ha-ha*. One of the Montagnais in camp, Ben McKenzie, remarked that the day would be windy, since the Loon was flying high. (On the Loon as a bird of omen to the Montagnais, see Speck, 1935:126.) A few hours later a brisk west wind was blowing on near-by Sunny Mountain.

Two single birds were noted near the north end of Ashuanipi Lake on August 30. In the first week of September five were reported on a lake several miles north of Carol Lake. At the latter lake I heard the same eerie cry, as described above, on several occasions from September 13 to 17.

A. E. Boerner noted one bird at Gad Lake toward the end of August. Dr. F. D. Foster reported the species at Ashuanipi, Whiteman, Molson, and Evening lakes in June and July, 1949.

Most of the previous records are from the North Shore of the Gulf of St. Lawrence (Merriam, 1882b:241; Frazar, 1887:2; Townsend and Bent, 1910:7; Lewis, 1925:76; Taverner, 1929:74; Eidmann, 1937:157) and from the entire length of the Atlantic coast of the peninsula (Turner, 1885:253; Austin, 1932:23). The range extends north to Ungava Bay (Hildebrand, 1950:58; Bateman, 1953:3) and Hudson Strait (Turner, 1885:253; Payne, 1887:78) and along the east coast of James and Hudson bays to Korak Bay and Kovik River (Manning, 1949:164; Savile, 1950:95; Manning and Macpherson, 1952:7). Although Low (1896:323) reported the species as common throughout the interior, there are comparatively few records from specific localities: for example, east of Indian House Lake (Prichard, 1911:118); near St. Paul River (Cabot, 1920:329); a tributary of Little Mecatina River (Stainer, 1938:157); Clearwater, Scoter, Bienville, and Kinglet lakes (Manning, 1949:164); the Lake St. John area (Godfrey and Wilk, 1948:4); Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:13); the Chubb Crater area (Martin, 1955:491); and Payne and Gregory lakes (Eklund, 1957:72).

Gavia stellata (Pontoppidan)

Red-throated Loon.

A loon appearing brownish and small, on the Gulf off Baie Comeau on May 21, was evidently of this species. A similar loon or two were noted on the same day between that point and Franquelin. I found no evidence of this species in the interior.

Previous records are mainly coastal—from the North Shore of the Gulf (Merriam, 1882b:241; Frazar, 1887:2; Townsend and Bent, 1910:7; Lewis, 1927:59, and 1931:74; Taverner, 1929:75); the Atlantic coast (Bigelow, 1902:25; Austin, 1932:25; Grayce, 1947:276); Hudson Strait and Ungava Bay (Turner, 1885:253; Payne, 1887:78; Bent, 1919:72, 74; Hantzsch, 1928:88; Manning, 1949:166; Hildebrand, 1950:58); and east side of Hudson Bay (Manning, 1947:75, 76, and 1949:166; Savile, 1950:95). Records from the interior are few: upper Hamilton River (Low, 1896:323); Michikamats Lake (Mrs. Hubbard, 1908:123); Payne Lake area (Flaherty, 1918:129); Chubb Crater area (Martin, 1955:491); and Povungnituk River (Eklund, 1957:72).

Morus bassanus (Linnaeus)

Gannet.

On May 21, in mid-St. Lawrence between Rimouski and Baie Comeau, I noted one Gannet flying low over the water and another resting on its smooth surface.

As far as the Ungava Peninsula is concerned, the Gannet seems to be almost confined to the southern coast (chiefly from Seven Islands eastward): Pointe des Monts (Merriam: 1882b:240); Belle Isle (Bigelow, 1902:27); Seven Islands to Mingan (Townsend and Bent, 1910:9); formerly nesting in Mingan group (Frazar, 1887:18; Comeau, 1923:17, 428); Natashquan, Harrington, and Mutton Bay (Lewis, 1922:511); Domino Run to Belle Isle (Grayce, 1947:276).

Phalacrocorax floridanus migratorius (Barton)

Double-crested Cormorant.

Off Rimouski, on May 21, there was a flock of six Double-crested Cormorants, besides a few single birds. Small numbers were seen almost daily, May 22 to June 1, on the bay and the Gulf in the vicinity of Seven Islands. In addition to single birds, there were groups of two to seven individuals (these last on June 1).

In the waters about the Ungava Peninsula, this species, like the Gannet, is now almost confined to the southern coast. On the east coast the species had become almost extirpated by 1932, though formerly common north to Hamilton Inlet, with a single record from Kaipokok Bay (*ca.* lat. 55° N.) (Austin, 1932:33). Some of the principal records from the Gulf are by Merriam (1882b:240), Stearns (1883:121), Frazar (1887:18), Townsend and Bent (1910:9), Bent (1922:243), Lewis (1929:8–10; 1931:74–75, 77), and Tener (1951:66–67).

The name *Colymbus migratorius* Barton (1799:17; type locality, "the neighborhood of Philadelphia") is accompanied by a sufficient description to validate it. It antedates *Carbo auritus* Lesson (1831) and should replace it for the northeastern subspecies. Barton ascribed the name to Bartram (1791:295, as *Colymbus migratorius*), who unfortunately provided no description. I have pointed out (1942:219-220) the validity and availability of Bartram's *Colymbus floridanus* (1791:295) for the Florida Cormorant. This being the oldest valid name for any form of the Double-crested Cormorant, it becomes the specific name. The following new combinations are therefore proposed:

Phalacrocorax floridanus floridanus (*Colymbus Floridanus* Bartram, 1791)

Phalacrocorax floridanus migratorius (*Colymbus migratorius* Barton, 1799)

Phalacrocorax floridanus cincinatus (*Carbo cincinatus* Brandt, 1837)

Phalacrocorax floridanus albociliatus (*Phalacrocorax dilophus albociliatus* Ridgway, 1884)

Ardea herodias herodias Linnaeus

Great Blue Heron; Grue (Fr.).

At the Iron Arm on Attikamagen Lake a canoeman, Antoine Deschènes, reported seeing a "Grue" (Crane) on June 30. He obviously meant thereby a Great Blue Heron, just as many of our country people refer to this bird as a "Crane." Moreover, Tony said he had seen many of them in his home territory about Mont Joli, on the south side of the Gulf. Dionne states (1906:121) that the common name in Quebec is "Grue."

Merriam (1882b:239) reports the species as rare at Godbout. Turner (1885:235) notes a single bird seen near Fort Chimo in 1880. The species is not uncommon in the Lake St. John area (Godfrey and Wilk, 1948:5).

Botaurus lentiginosus (Rackett)

American Bittern. (Map 4.)

On May 31 I had excellent views of one or two Bitterns at the marshy border of a woodland pool a little back from the Gulf shore, several miles east of Seven Islands.

According to Merriam (1882b:239), the species is common at Manicouagan and rare at Pointe des Monts. Other localities on the

PLATE I



FIG. 1.—Seaplane base at Knob Lake, Quebec, from the south (headquarters for biological investigations in 1953). Vegetation: black spruce, mostly burnt, in the foreground. June 14, 1953.



FIG. 2.—A group of Montagnais from the Seven Islands area. (Francis McKenzie, second from right in the front row, the principal informant on Montagnais names of birds.) Knob Lake, Quebec. June 22, 1953.



FIG. 1.—Barrens above timber-line on eastern slope of Sunny Mountain, Quebec (between approximate altitudes of 2,300 and 2,700 feet). Vegetation: *Picea* sp., *Betula glandulosa*, *Vaccinium uliginosum*, *Salix* sp., *Empetrum nigrum*, *Cladonia alpestris*. August 10, 1953.



FIG. 2.—Lichen woodlands, including *Picea mariana*, *Betula glandulosa*, *Vaccinium uliginosum*, *Vaccinium angustifolium* var. *laevifolium*, *Cladonia alpestris*, *Cladonia rangiferina*?, *Stereocaulon* sp. Leroy Lake, Quebec. August 19, 1953.

North Shore are the vicinity of Mingan and Blanc Sablon River (Lewis, 1922:511; 1928:192); also Natashquan (Townsend, 1917:137), Trout Lake (Eidmann, 1937:160), and a tributary of Little Mecatina River (Stainer, 1938:157). On the Atlantic Coast it is rare from Hamilton Inlet southward (Austin, 1932:34). On the east James Bay coast Manning and Macpherson (1952:8) found it north to Roggan River. It is common in the Lake St. John area (Godfrey and Wilk, 1948:5), and a few are reported about Lake Mistassini (Godfrey, 1949b:14).

***Branta canadensis interior* Todd**

Ungava Canada Goose; Outarde (Fr.); Nesk (M.).

It is presumably this subspecies that occurs somewhat sparingly as a summer resident in the interior of the peninsula; it becomes more numerous during migration. On June 4 I saw two flying northwest over Slimy Lake, and on the 18th I heard one or two near Hanna's Lake. At a lake a dozen miles northwest of Knob Lake a flock of five was seen from a plane on June 22.

At Mollie T. Lake, on August 11, a flock of four kept circling and honking for perhaps a couple of minutes at a height of 125-150 feet, before settling down on a more or less treeless ridge on the east side. The object seemed to be the same as that of a Black Bear in the same place two days previously—to feed on berries, such as *Vaccinium* spp. and *Empetrum*. On August 15 two geese were reported on this ridge. On the 18th a flock of seven came flying from the south at a height of 100 feet or so, circled, and settled on the lake. On the 19th a flock of four, honking as they customarily do in flight, passed south over Leroy Lake. On September 11 I found goose droppings and feathers at a little pond above timberline on Lorraine Mountain; the altitude was roughly 2,600 feet.

On September 27 a flock of eight, about 200 feet up, passed southward or southeastward over Knob Lake; and on the 29th a flock of about a dozen followed the same course. They were heading in the direction of a small lake on Gilling River, about 8 miles distant, beside the right of way for the forthcoming railway. They had begun congregating at this location by September 21. On the following day, according to Roger Topping, there were perhaps 500 there; they seemed to spend the day berrying on the hills, departing from the lake early in the morning and usually returning late in the afternoon. While at the lake, they seemed to pay little attention to

the few motor vehicles passing along the right of way. Several hunters took advantage of the situation and secured a number of geese. One adult that I examined was distinctly less dark-backed than two juveniles from Leaf Lake (see below). When I visited the lake on Gilling River on October 3, no geese were in evidence. A quantity of aquatic plants (*Potamogeton perfoliatus* var. *bupleuroides* and *Myriophyllum alterniflorum*) was floating in the edge of the lake, as if perhaps pulled up by the geese in their feeding.

Two young geese, captured alive in the summer at Leaf Lake in northern Ungava by the Montagnais chief, Mathieu André, were kept for a time in September at Knob Lake. They were noticeably dark—almost slaty—on the upper parts (pl. 4). When allowed a little liberty in a pool beside camp, they fed upon *Equisetum limosum*. (A common name reported by Raup (1935:96) for another species of this genus (*E. pratense*) in northern Alberta is goosegrass.) Their honking note sounded to me like *ha-yunk'*; a low conversational note sounded like *quoo*. Their owner, Lloyd Hogan, told of the reaction of these young geese to the approach of a plane, during an appreciable length of time before either he or his companions detected it by either sight or sound; the geese flattened themselves on the ground, with necks outstretched and prone.

An adult female specimen, taken in the vicinity of Burnt Creek on October 2, was kindly presented by A. H. Tait and Phil Bourdage; it has been determined as *interior* by John W. Aldrich. Its iris was deep olive-brown; bill black; tarsus, toes, and nails slaty gray. The weight was approximately 7.5 lbs. Its esophagus and proventriculus contained *Ranunculus trichophyllus*. Mallophaga collected from it consisted of four *Ornithobius goniopleurus* Denny and one *Trinoton anserinum* (F.).

Dr. F. D. Foster provided me with the following records of Canada Geese in 1949: small number, Ashuanipi Lake, June 19–21; two adults with two and three young, Evening Lake, July 15; flocks, Astray Lake and vicinity, September 14 to 20; many, Wishart Lake, September 22.

Other friends, among the geological and mechanical personnel of the area, contributed the following notes. The species migrates past Lac de Morhiban (Philip Loth). In May, 1952, Arthur C. Newton observed "squadrons" migrating down the Kaniapiskau River, 5 miles north of Fort McKenzie. There were two dozen or more in a flock, and they kept passing for 15 minutes. They followed the course of the river rather than a straight compass course. None was

noticed staying there through the summer to breed. (This account so resembles that given by Turner (*in* Bent, 1925:241) for the migration of American Brant (*Branta bernicla hrota*) down the Koksoak River as to raise the question whether Mr. Newton's birds were not also Brant. After reaching the mouth of the Kaniapiskau, they would naturally turn down the Koksoak.) On July 16, 1953, Mr. Newton found two adults, with seven fair-sized young, on Lake Wapaniskan; as they swam away, one parent led the group and the other brought up the rear.

Young geese and molting, flightless adults were seen in 1952 in the central portion of Michikamau Lake (Allen Thompson). About July 1, 1953, a goose was honking on Lac Aulneau (Robert Slipp). On August 2 the leader of a geological party at Nachikapau Lake reported no geese in that vicinity. About the end of July two were seen at Lac Hayot (William C. Hood, Jr.). About the middle of August a flock of eight was seen on land at Syncline Lake, feeding presumably on blueberries (Brian M. Meikle). J. L. Véronneau observed four or five at Leroy Lake, August 24, 1953; 12, including young not able to fly, on marshy ground at Scott Lake, September 4; six and 20 at Harris Lake, September 12 and 13; and 12 at Lac Le Fer, September 23. About September 13 there was a flock of three or four on a pond at Mile 224 Airstrip (William Schrøpfer).

The greater part of the Ungava Peninsula is occupied during the breeding season by one or the other of two subspecies—the Ungava Canada Goose (*B. c. interior* Todd) on the east coast and islands of James and Hudson bays and for an undetermined distance inland; and the Eastern Canada Goose (*B. c. canadensis* (Linnaeus)) in the remainder of the region. In addition, some of the breeding birds of Baffin Island—Hutchins' Goose (*B. c. hutchinsii* (Richardson))—pass through the peninsula on migration. Some of the principal sources of distributional information are: Low (1896:324); D. Wallace (1906:81, 115, 123, 132, 181); Townsend and Bent (1910:12); Bent (1925:204, 217); Hantzsch (1928:207); Lewis (1930:109); Austin (1932:35); Merrick (1933:41, 63, 84); Todd (1938); Kortright (1942:86, 97); Aldrich (1946:101); Manning (1949:169–170); Godfrey (1949b:14); Rousseau (1949:102); Hildebrand (1950:58); Savile (1950:95); Manning and Macpherson (1952:9); Bateman (1953:3); Polunin and Eklund (1953:135); Stirrett (1954:214); and Eklund (1957:72). Gabrielson and Wright (1951:130) refer to *B. c. canadensis* two juveniles from the lower Koksoak River.

***Chen hyperborea atlantica* Kennard**
Greater Snow Goose; Oapesk (M.).

The few notes secured by me on Snow Geese in the Ungava Peninsula are referred provisionally to the present subspecies rather than to the more westerly Lesser Snow Goose (*C. h. hyperborea* (Pallas)). On October 3 Leon Tousignant reported that he had seen 10–12 white geese on Astray Lake about two and a half weeks previously. According to Howard Jackson, Snow Geese stop occasionally at Ashuanipi Lake. Jérôme St. Onge spoke of having seen these geese pass on only two occasions near the mouth of the Moisie River.

Mr. Charles Frémont, general superintendent of the Quebec Department of Game and Fisheries, informed me that the numbers of Greater Snow Geese pausing on migration at Cap Tourmente, on the St. Lawrence estuary 25 miles northeast of Quebec, had recently increased from an estimated 55,000 to an estimated 70,000. In comparison with only 2,000–3,000 in that area at the turn of the century and 10,000 about 35 years later, as reported by White and Lewis (1937:440), this is extraordinarily gratifying news. Such a rate of increase (say 2200–3400 per cent in little more than half a century) is perhaps as phenomenal as any that has ever been recorded for a native American bird. The authors just cited also report (p. 441) that “large numbers of Greater Snow Geese habitually stop in late May on the lakes at the headwaters of the Manikuagan,” evidently coming from Cap Tourmente. The route from the Manicouagan lakes northward over the Ungava Peninsula toward their high Arctic breeding grounds remains practically unknown. Perhaps they rarely pause on their remaining flight of 450–650 miles to Ungava Bay or Hudson Strait. Similarly, there are evidently no regular stopping-places on their flights of nearly 600 miles between Cap Tourmente and Delaware Bay. Comeau (1923:426) reports “*Chen hyperboreus*” (probably *atlantica*) as shot frequently in the Godbout area since 1882.

Manning (1949:171) and Manning and Macpherson (1952:9) refer to *C. h. hyperborea* the large numbers of Snow Geese that have been observed migrating along the east coast of Hudson and James bays and across the western portions of Hudson Strait. Turner (1885:248), evidently without the benefit of specimens in hand, reported the Greater Snow Goose in the latter area. Payne (1887:77) wrote of thousands arriving at Stupart Bay in early September.

Considerably more material is required for a determination of the relative numbers of the two subspecies that cross Hudson Strait and of the places at which each crosses.

Anas rubripes Brewster
Black Duck; Ilni shep (M.).

On May 26, some 5 miles east of Seven Islands, a group of three Black Ducks flew west near the shore of the Gulf. For three months thereafter, at various points in the interior of the peninsula, I saw no more of this species. It can scarcely be at all common there during the breeding season. Toward the end of summer small numbers appeared, evidently as migrants. On August 26 a Montagnais killed four Black Ducks somewhere near the north end of Ashuanipi Lake (perhaps on its outlet); and I saw the wing of one of them. On the following day I noted a flock of three birds, and another of four, at a boggy pond close to Mile 224 Airstrip; and I also flushed a flock of three from a near-by part of the Ashuanipi River. On September 5 there was a flock of 14 at the above-mentioned pond.

Coastal areas have so far furnished the greater part of the records of this species for the Ungava Peninsula. Some of the more important sources of information are: for the south coast—Stearns (1890?: 66), Palmer (1891:259), Cooke (1906:24), Townsend and Bent (1910:10), Comeau (1923:17), and Lewis (1931:74-75, 77); for the east coast—Phillips (1923, 2:68, map 31) and Austin (1932:40); for Ungava Bay and Hudson Strait—Turner (1885:249), Hantzsch (1928:175), Gabrielson and Wright (1951:130), and Eklund (1957: 72); for James Bay—Manning and Macpherson (1952:10). Data for the extreme northwest of the peninsula seem to be lacking. Interior records include: Hamilton River and "throughout" (Low, 1896: 323); upper Nascaupsee River (Mrs. Hubbard, 1906:537); near Lake Desolation and along George River (D. Wallace, 1907:105, 130, 131, 153); Kenamu River (Leslie, 1931:212); Hamilton River (Merrick, 1933: 43, 70, 83); Lake St. John area (Godfrey and Wilk, 1948:6); Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b: 14); Clearwater River (Manning, 1949:172); south of Mealy Mountains (Addy, *et al.*, 1950?:84); and Gregory Lake (Polunin and Eklund, 1953:135).

Black Ducks banded on the eastern and southern coasts of the Ungava Peninsula have been recovered along the Atlantic Coast from Nova Scotia to North Carolina; they show a particular concen-

tration in southern New England, Long Island, and New Jersey (Hagar, 1954:map 7).

***Anas acuta* Linnaeus**

Pintail; Oopeneshep (M.). (Map 5.)

A small, boggy pond on the east side of Mile 224 Airstrip, north of Ashuanipi Lake, with a wide border of sedges and other marsh plants, attracted Pintails as well as other ducks. Here a flock of four, in female or immature plumage, dropped in toward sunset on August 25. There was another (or the same) flock of four at this pond two days later. As far as my limited observations went, there were no Pintails on the interior waters in the breeding season.

The species breeds apparently on Ungava Bay (Turner, 1885:129; Hildebrand, 1950:58; Gabrielson and Wright, 1951:131) and on the east coasts of James and Hudson bays north to Povungnituk (Manning, 1947:76, 80, and 1949:172; Manning and Macpherson, 1952:10). There are a few records (chiefly in the migration season) for the North Shore of the Gulf: Merriam (1882b:239); Stearns (1883:120); Townsend and Bent (1910:10); Comeau (1923:426); and Tener (1951:66-67). Along the east coast it is an uncommon transient (Hantzsch, 1928:176; Austin, 1932:42). In the interior there are summer records from the Lake St. John area (Godfrey and Wilk, 1948:6), Bush Lake (Manning, 1949:173), south of Leaf Bay (Bateman, 1953:3), and near Lake Aigneau and Payne Lake (Eklund, 1957:72).

***Anas carolinensis* Gmelin**

Green-winged Teal.

In poor light toward the end of the day on August 8, at a pond at Burnt Creek, I saw a flock of half a dozen ducks the size and habitus of which were right for this species. On August 25 there were two Greenwings in temporary association with four Pintails at a pond near Mile 224 Airstrip. They were so confiding that sticks thrown near them did not cause them noticeable alarm or force them into flight.

This species breeds along the North Shore of the St. Lawrence River and Gulf (Merriam, 1882b:239; Dionne, 1906:84; Lewis, 1927:62, and 1928:192) and on the east coast of James Bay (Manning and Macpherson, 1952:11). There are few records for the Atlantic Coast (Austin, 1932:44; Miss Orr, 1948:221; Addy, *et al.*, 1950?:84) and for the Ungava Bay area (Turner, 1885:249; Manning, 1949:



Distributional records of birds in the Ungava Peninsula:

3.—*Gavia immer*.

5.—*Anas acuta*.

7.—*Bonasa umbellus* subspp.

4.—*Botaurus lentiginosus*.

6.—*Canachites canadensis* subspp.

8.—*Lagopus lagopus unguavus*.

173; Gabrielson and Wright, 1951:131). In the interior the only breeding records appear to be for the Lake St. John area (Godfrey and Wilk, 1948:6) and south of Leaf Bay (Bateman, 1953:3); but Merrick (1933:83) reports "teal" at Flour Lake in October.

Bucephala clangula americana (Bonaparte)

American Goldeneye; Meshe kosk (M.).

On May 21 a flock of eight or ten Goldeneyes was noted off Franquelin, on the North Shore.

This is perhaps the commonest duck of the interior of the peninsula. At Goldeneye Pond, west of Knob Lake, a pair was evidently domiciled for the summer, one or both of the birds being seen on June 4, 6, 9, and 13. Two were present on Slimy Lake, June 11. On the Iron Arm, Attikamagen Lake, single Goldeneyes were noted on July 11 and 14, and a flock of four on the 11th. Of these last, none was a male in breeding plumage, but one, exhibiting more white in the wing than the others as they rested on the water, may have been an eclipse male.

At Lac Aulneau an adult female was seen on a number of occasions, July 23 to 31. On the 27th and again on the 29th she remained only a short distance offshore from camp, without taking flight at the appearance of the personnel. Her actions indicated that she might be preparing to lead off some newly hatched young. She would call *grrk* and stretch her head forward low over the water. The white collar around her neck was almost concealed as she kept her head lowered in a restful state, but was revealed as she raised her head in successive movements to express inquiry or suspicion. The yellowish coloration of the subterminal portion of the maxilla, characteristic in the spring, was no longer evident.

On July 29 the duck was on a little sedge-bordered pond in the woods a little distance back from the west side of Lac Aulneau (where she had been reported by Robert Slipp as frequently traveling back and forth in June). Although I was in full view at 40-60 yards, the duck merely uttered a few of the *grrk* notes and indulged in some head-thrustings, and then continued diving. The duration of ten consecutive dives varied from 17 to 25 seconds (average 21.7). An apparently well-developed timing sense enabled her to make three consecutive dives of 25 seconds each, and six other consecutive ones varying only between 19 and 22 seconds. The ten intervals between these dives varied from eight to 22 seconds (average, 11.9); but seven consecutive intervals varied only from nine to 13 seconds.

On several occasions between August 29 and September 6, at two small boggy ponds on the east side of Mile 224 Airstrip, I noted Goldeneyes in small numbers, varying from single birds to a flock of five. At Camp Pond, near Knob Lake, there were two birds on September 22. Howard Jackson showed me three birds (females or immatures) taken near Burnt Creek on October 4.

Merriam (1882b:240) considered the Goldeneye a common permanent resident at Pointe des Monts. There are a few summer records at other points on the North Shore (Townsend and Bent, 1910:10; Phillips, 1925, 3:323, map 91; Kortright, 1942:259, 267 (map)), and along the east coast from Port Manvers south (Austin, 1932:44; Miss Orr, 1948:221). Considerable numbers of Goldeneyes are found on Ungava Bay in late summer or fall (Turner, 1885:250; Gabrielson and Wright, 1951:131)—perhaps after having nested in the interior? They appear rather common on the east James Bay coast north to Cape Jones (Manning and Macpherson, 1952:12), and a few have been found in summer at Great Whale River on Hudson Bay (Savile, 1950:96). In the interior there are records from the upper Hamilton River (Low, 1896:323); the Lake St. John area (Godfrey and Wilk, 1948:6); Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:15); and south of the Mealy Mountains (Addy, *et al.*, 1950?:84). Eklund (1957:72-73) reports Goldeneyes of undetermined species at Lake Aigneau and on Payne, Wheeler, and Whale rivers.

***Somateria mollissima dresseri* Sharpe**
American Eider; Nessep (M.).

My observations on Eiders were limited to May 21 on the Gulf of St. Lawrence; and all the birds were distant. Off Rimouski there was a flock of five on the water, composed apparently of both sexes; and two other flocks, of nearly the same size and composition, between Franquelin and Godbout, both traveling east. They seemed inclined to form a diagonal file, going low over the water, the white backs and black bellies of the males being conspicuous. East of Godbout there was yet another flock of five or six, likewise going east. Perhaps these small flocks were still engaged in migration toward their breeding grounds, which are mainly on the eastern part of the North Shore.

The present subspecies breeds along the North Shore of the Gulf and northward along the Atlantic coast approximately to Hamilton Inlet (Townsend and Bent, 1910:11; Beetz, 1916; Comeau, 1923:18;

Phillips, 1926, 4:112, pl. 81, map 101; Lewis, 1931:74-75, 77, and 1938; Austin, 1932:49; and Kortright, 1942:302, 307 (map)).

The Northern Eider (*S. m. borealis* (Brehm)) breeds along the Atlantic coast north of Hamilton Inlet and on Ungava Bay and Hudson Strait. The Hudson Bay Eider (*S. m. sedentaria* Snyder) breeds on the east coast of Hudson Bay and on islands in James Bay.

***Melanitta deglandi deglandi* (Bonaparte)**
White-winged Scoter; Koiskoshipatom (M.).

As the steamer was passing along the North Shore on May 21, between Baie Comeau and Franquelin, I noted two flocks of White-winged Scoters: one of four or five birds, and one of seven or eight, both flying low over the water, and at least the latter headed west. Another bird or two were observed off Godbout.

Most of the records from the Ungava Peninsula pertain to the east coast, where large numbers, consisting mostly of (non-breeding?) males, spend the summer, north to about latitude 60° (Turner, 1885:250; Phillips, 1926, 4:42, map 97; Austin, 1932:55; Gross, 1937:20). Stearns (1883:121) and Comeau (1923:42, 267 ff., 428) refer to the species as a spring and fall migrant along the south coast. Gabrielson and Wright (1951:132) found numbers on Ungava Bay. A good many have been recorded from the east coast of James and Hudson bays, north to the vicinity of McCormack Island (Manning, 1949:177; Savile, 1950:96; Manning and Macpherson, 1952:13). There are single records from Lake St. John (Godfrey and Wilk, 1948:7) and from Lake Mistassini (Godfrey, 1949b:15).

If the large numbers of male Whitewings that appear on the coast in summer had merely retreated there from inland breeding grounds as soon as incubation was under way (as male Surf Scoters in the Canadian Northwest evidently do), we should expect to find the females and juveniles in the interior during the latter part of the summer; but such is not the case. As Austin has remarked (1932:55), there is no adequate proof of nesting anywhere in the peninsula. Yet, on the assumption that the two sexes are approximately equal in number, where can the females be found, to match the preponderant summering males of the coastal waters?

***Melanitta perspicillata* (Linnaeus)**
Surf Scoter; Koaiken (M.).

A number of Surf Scoters were seen off Baie Comeau on May 21; among them was a flock of about 50, passing west low over the

water. There was also a pair two miles east of Franquelin. On May 23 and 27 a single male was noted on the bay at Seven Islands. My only observation in the interior was of a pair on Slimy Lake, June 11; here they may have been preparing to breed.

This species, like the White-winged Scoter, summers on all the coasts of the Ungava Peninsula: south (Audubon, 1838, 4:161; Merriam, 1882b:240; Townsend and Bent, 1910:11; Lewis, 1925:76; Phillips, 1926, 4:45, map 98); east, north to Cape Mugford (Bigelow, 1902:28; Bent, 1925:146; Austin, 1932:56; Gross, 1937:21; Grayce, 1947:277); north (Stupart Bay, Akpatok Island, and mouth of Koksoak River) (Turner, 1885:251; Manning, 1949:177; Gabrielson and Wright, 1951:132); and west, north to vicinity of McCormack Island (Phillips, 1926, 4:45; Manning, 1949:177; Manning and Macpherson, 1952:13). Among these coastal birds, the males seem to greatly outnumber the females (Merriam, 1882b:240; Bent, 1925:146; Austin, 1932:57; Manning, 1949:178). Interior records include the following localities: Hamilton River, in spring migration (Low, 1896:324); Petitsikapau Lake and other lakes of the interior (Todd, *in* Phillips, 1926, 4:49); Lake Mistassini (Macoun, 1886:35; Godfrey, 1949b:15); south of Mealy Mountains (Addy, *et al.*, 1950?:84). Breeding data are very scanty, and mostly rather indefinite: near Little Mecatina (Audubon, 1838, 4:161); east coast (Turner, 1885:251; Austin, 1932:57); Akpatok Island (Bent, 1925:146); interior of southern Labrador (Lewis, *in* Austin, 1932:57).

***Mergus serrator serrator* Linnaeus**

Red-breasted Merganser; Bec-scie (Fr.); O shok (M.).

On the bay at Seven Islands I saw a pair of these Mergansers on May 23, and a male and a female separately on May 27.

In the interior my few observations of Mergansers consisted chiefly of brief or distant glimpses. As nearly as I could judge, the birds were the Red-breasted species, and all or nearly all the adults were females. On July 3 one was flushed from a little lake near the northwestern end of the Iron Arm of Attikamagen Lake; three were seen in the western part of Attikamagen Lake on July 14, and one in the Northwest Bay on July 18. In July Robert Slipp reported a nest beneath spruces on an island in Lac Aulneau. On August 19 Gilbert Simard and J. L. Véronneau reported four to six ducklings on an expansion in the outlet of Leroy Lake; the Montagnais Indians in the party pronounced the species "Bec-scie," that is, Merganser.

Near the north end of Ashuanipi Lake, on August 30, Captain Kai Mansa and I in a motorboat pursued a group of eight to ten youngsters, evidently of the present species. There was apparently an adult with them, though it was scarcely larger than the others. They escaped by skittering and diving, as if not yet able to fly. They displayed an amazing faculty for simply disappearing, then perhaps reappearing half a mile away—or not at all!

Captain Mansa presented two immature Red-breasted Mergansers (male and female), taken on Molson Lake on September 15. The former weighed approximately 1 lb., the latter, 515.3 g.; both carried some fat. In the male (four or five days later) the maxilla was brownish or fuscous; unguis light brown; tomium reddish; mandible dull reddish; tarsus and toes pale, dull yellowish orange on inside, yellowish brown on outside. In the female these colors were similar, except that the tarsus and toes were pale brownish orange on the inside, olive-brown on the outside.

Dr. F. D. Foster reported two Red-breasted Mergansers on Ashuanipi and Whiteman lakes on each of several days, June 9 to 24, 1949; on June 19 he found a nest with 12 eggs on the first-mentioned lake. On July 26, 1949, he noted a female with 12 young on Evening Lake.

This species occurs more or less commonly on all the coasts: south (Merriam, 1882b:240; Frazar, 1887:19; Stearns, 1883:121; Townsend and Bent, 1910:10; Lewis, 1931:74-75, 77); east (throughout) (Bigelow, 1902:27; Phillips, 1926, 4:279, map 116; Austin, 1932:60); north (Ungava Bay) (Turner, 1885:251; Hantzsch, 1928:174; Gabrielson and Wright, 1951:132); and west, north to Great Whale River (Manning, 1949:179; Savile, 1950:96; Manning and Macpherson, 1952:14). In the interior it was said by Low (1896:323) to be abundant throughout. Various inland localities are: Lake Mistassini (Macoun, 1886:35); Lake Albanel (Godfrey, 1949b:16); Lake St. John area (Godfrey and Wilk, 1948:7); Bush, Scoter, Kinglet, and Bienville lakes (Manning, 1949:179); George River (Hildebrand, 1950:60); south of the Mealy Mountains (Addy, *et al.*, 1950?:84); and south of Leaf Bay (Bateman, 1953:4). Kortright's map (1942:362) indicates a breeding range over the entire Ungava Peninsula except the northwestern portion—beyond a line from Cape Jones to Chimo (but note Manning's later records from Bush and Scoter lakes).

There can be little doubt that this is by far the commoner of the two large Mergansers in the interior of the peninsula, although Low

(1896:323) reported the American Merganser (*Mergus merganser americanus* Cassin) as "common throughout."

Buteo lagopus sancti-johannis (Gmelin)

American Rough-legged Hawk; Shakotom (M.).

In the breeding season I made field observations on Roughlegs only at Lac Aulneau, and more especially on the treeless summit of a ridge on the west side, at an altitude of about 1,000 feet above sea-level. On July 23, as I neared the precipitous south end of the ridge, where a nest was presumably located, a pair of Roughlegs, circling and soaring overhead, greeted me with their cry of *kearr, kearr*. Its tone resembled that of a Redtail's, but had less suggestion of the hissing sound made by escaping steam. It was delightful to listen to this wild cry among the blue hills of Ungava, as I reclined on a bed of *Cladonia alpestris* in the lee of a clump of dwarf birch. One of the birds was in the dark phase, with a white-barred tail, and the other was in the light phase, with a white basal portion of the tail. In circling about and continuing to voice their resentment at my intrusion, they would give from three to seven or eight strokes of their wings, and then soar. Meanwhile, in their rather leisurely flight, they came within good range of my movie camera. On July 25 an individual gave its cry over Lac Aulneau.

Robert Slipp reported Roughlegs screaming at him in two cliff areas: one 3 or 4 miles south, the other 4 miles south-southeast, of this lake. A partly feathered juvenal female Roughleg, taken from a nest near the south end of Lac Aulneau on August 3 or 4, was sent by air to Knob Lake, where I made a specimen of it. It was not fat, and weighed approximately 1.5 lbs. A flea (*Ceratophyllus* sp.) was secured from it. The iris was drab; cere greenish yellow; bill black, greenish toward base; commissure yellow; toes dull yellow; nails black. At this time (August 4) three fully feathered young Roughlegs (out of an original four) were being reared in a cage at Knob Lake, after having been taken from a nest on a cliff somewhere in the area.

On September 6 a distant hawk, pretty certainly a Roughleg, was noted near Mile 224 Airstrip. On September 22 and 24 single birds passed Knob Lake, one of them alighting in a spruce top, then descending into a bog (presumably for a mouse).

On June 29 Flight Officer W. A. McKenzie, RCAF, while flying some 15 miles southwest of Cambrian Lake, noted a hawk, sometimes soaring, sometimes flapping, at an altitude of 5,000 feet. The

coloration described (dark brown above, with a lighter area toward the tip of the wing), as well as the manner of flight, indicated the present species. The altitude is especially interesting.

In 1954 a member of a geological party took a young Roughleg from a cliff nest between Lakes Rasle and Gerido, north of the junction of the Koksoak and Kaniapiskau rivers, for the purpose of rearing it (Fred Farah, *in litt.*, August 18, 1954).

The Roughleg, being primarily, I believe, a breeding bird of the Barren Grounds, is found in summer along the coasts of the Ungava Peninsula about as far as the Arctic Zone extends: east coast of Hudson and James bays, south to Moar Bay and Poplar River (Manning, 1949:179; Savile, 1950:96; Manning and Macpherson, 1952:14); Hudson Strait and Ungava Bay (Turner, 1885:244; Payne, 1887:76; Shortt and Peters, 1942:342; Manning, 1949:179; Friedmann, 1950:325; Gabrielson and Wright, 1951:132; Bateman, 1953:4); Atlantic Coast, throughout (Bigelow, 1902:29; Austin, 1932:62; Townsend, *in Bent*, 1937:269, 271, 278, 281; Gross, 1937:21; Friedmann, 1950:325); and south coast, from Wolf Bay east (Lewis, 1930:110), and possibly (in former years) even west to Pointe des Monts (Merriam, 1882b:237; Comeau, 1923:423). In the interior it probably nests mainly in the northern half of the peninsula, either in the Arctic Zone proper or on higher ridges of Barren Grounds rising out of the Hudsonian Zone: for example, (Lower) Seal Lake (Macoun and Macoun, 1909:262); Minto, Bush, and Scoter lakes (Manning, 1947:76, 80); and Indian House Lake (Clement, 1949:372). Its omission from Low's list (1896) may be significant. However, it is reported from the lower Natashquan River by Townsend (1913:174, 177). For the Lake St. John area there is only a May record (Godfrey and Wilk, 1948:8)—probably a transient bird.

Haliaeetus leucocephalus alascanus C. H. Townsend

Northern Bald Eagle; Kaoapestokoanet mestsho (M.).

In early July, 1952, Robert Slipp noticed a Bald Eagle frequently on Goose River, 4 to 5 miles east of Petitsikapau Lake; he saw the Eagle chase a Fish Hawk. Another report on probably the same bird came from Lloyd Hogan, who spoke of it as nesting for several years prior to 1953 near Guy's River, in the top of a spruce beside a river emptying into Petitsikapau Lake.

In mid-June, 1953, Richard Geren reported a Bald Eagle seen recently somewhere in the Knob Lake area. In the summer, members of a geological field party saw an Eagle at Wabush Lake. They

reported its note as a scream, not a whistle; thus it was scarcely a Fish Hawk, which apparently is sometimes confused with the Eagle in Labrador. Later they saw a big nest near the top of a tree in the same area. Sebastien McKenzie spoke of the occurrence of the species in the vicinity of Lac Aulneau. Dr. F. D. Foster reported one bird at Molson Lake, July 1 and 2, 1949, and two at Evening Lake, July 26, 1949.

There are comparatively few previous records in the peninsula. The species has bred at Pointe des Monts (Merriam, 1882b:238; Comeau, 1923:424) and apparently near Ungava Bay (Macoun and Macoun, 1909:269). Low (1896:325) saw a pair on Hamilton River below Grand Falls, April 28. Frazar (1887:33) reports it at Cape Whittle; Lewis (1925:82), near Betchewun, September 3; Lincoln, *in Bent* (1937:332), at Wolf Bay; Godfrey (1949b:16), near Lake Albanel; and Friedmann (1950:489), at Petitsikapau Lake.

***Circus cyaneus hudsonius* (Linné)**

Marsh Hawk; Notshineo oesho (M.).

A single bird was seen a little west of Clarke City, May 22.

Previous records are from the following localities: Pointe des Monts (Merriam, 1882b:237); Dead Island Harbour (Stearns, 1883:118); a pair, 2 miles inland from Esquimaux Point (Havre St. Pierre), June 11 (Townsend and Bent, 1910:14); Betchewun, September 3 (Lewis, 1925:82); mouth of Natashquan River (Lincoln, *in Bent*, 1937:92); Lake St. John area (Godfrey and Wilk, 1948:8); and Great Whale River (Savile, 1950:96).

***Pandion haliaëtus carolinensis* (Gmelin)**

American Osprey; Fish Hawk; Koshi mesheo (M.).

Single birds were seen on May 21 at Baie Comeau and Franquelin.

In the northern interior the species occurs somewhat sparingly. One was seen with a fish over Pierce Lake on June 20, and one over Northwest Bay, Attikamagen Lake, on July 15. On July 29 Robert Slipp reported a recently occupied nest on the east side of Lac Aulneau; he had seen an adult carrying fish to it. One appeared over Mollie T. Lake on August 13, and one was reported catching a fish there on the 18th. On August 19 one was calling at the outlet of Leroy Lake. One was doing likewise on August 27 over the Ashuanipi River just below Ashuanipi Lake, and one was seen in the northern part of that lake on August 30.

Dr. F. D. Foster contributed the following notes: Ashuanipi Lake, north end, two birds, June 21, 1949; Howell's River to Knob Lake, a bird on nest, with young, September 14, 1949; Astray Lake, two nests with two young in each, September 15, 1949; Astray Lake, a nest with one young (older birds on the wing), September 21, 1949; Wishart Lake, nest with one young, September 22, 1949. At Howell's River there were two nests with two young in each, first week of August, 1953; all the young individuals were taken and fed in a camp; being allowed their liberty, the first one left on August 23, the second on August 24, and the last two on September 1. They would then still return to the camp and squawk for food.

It is perhaps noteworthy that the maximum number of young reported by Dr. Foster in the nests in this northern part of the range is two; also, that the young remain in the nest till the latter part of September. The late break-up of the frozen waters in the spring, an incubation period of about 38 days, and a nestling period of 51 to 53 days (as determined in the European *P. h. haliaëtus* by Siewert (1941))—these circumstances together may readily account for such a late departure from the nest. It is obvious that the Osprey, with its prolonged nesting season, can not extend its range northward to areas where the season of open water is much less than 100 days. It is also interesting that the hand-reared young should have flown so much earlier than those in the wild. Was it possibly due to a more substantial diet provided by their human foster-parents than by their natural parents? Is there a difficulty in catching a sufficient quantity of fish in these waters that has resulted in limiting the egg complement to two, instead of the more usual three—and occasionally four—in more southerly regions?

There is a moderate population of the Osprey on the North Shore of the Gulf (Merriam, 1882b:238; Frazar, 1887:33; Townsend and Allen, 1907:371; Townsend and Bent, 1910:14; Lewis, 1925:76); also on the east coast, north as far as Nachvak (Austin, 1932:65; Friedmann, 1950:527). It is the second commonest hawk on the east coast of James Bay, north to Roggan River (Manning and Macpherson, 1952:15), and it nests at Great Whale River on Hudson Bay (Savile, 1950:96). In the interior, according to Low (1896:325), it is common throughout, up to latitude 54° (upper Hamilton River). It was found by Mrs. Hubbard (1908:56) on the lower Nascaupee River, by Bryant (1913:12) on the St. Augustin River, by Leslie (1931:209) on the Kenamu River, and by Stainer (1938:157) on a tributary of Little Mecatina River. A few have been noted in the

Lake St. John area (Godfrey and Wilk, 1948:8) and at Lake Mistassini (Macoun, 1886:35).

Falco rusticolus obsoletus Gmelin
American Gyrfalcon.

Norman Delmage spoke of seeing a white, spotted hawk (evidently a Gyrfalcon in the white phase) half a mile east of Burnt Creek in the late winter or early spring, about 1950.

The various subspecies formerly recognized in eastern North America have been reduced by Todd and Friedmann (1947) to the one named above. Previous records in the peninsula are mainly from the east coast (Low, 1896:325; Townsend and Allen, 1907:368-369; Cabot, 1912:156; Austin, 1932:67; Todd and Friedmann, 1947:148). On the south coast Audubon (1834, 2:552) reported the species breeding 8-10 miles from Bradore. From Ungava Bay and Hudson Strait there are records by Turner (1885:243), Payne (1887:76), Manning (1949:181), and Bateman (1953:5). In the interior the Gyrfalcon has been found at Fort Nascopie (on Petisikapau Lake) (Todd and Friedmann, 1947:148) and also at Indian House Lake, where Clement (1949:371) noted more than 20 in the autumn of 1944. At the breeding season the species is largely or entirely restricted to the Arctic Zone, but it penetrates the wooded country to some extent on its winter wanderings.

Falco columbarius columbarius Linnaeus
Eastern Pigeon Hawk.

My experience with this species was limited to a few days near the northwestern end of the Iron Arm of Attikamagen Lake. Here a fairly open hillside, supporting some scattered spruces and clothed in part with a thick cover of alder, dwarf birch, and Labrador tea, at an altitude of about 1,700 feet, was evidently the nesting territory of a pair. The prospect from this area toward the south took in the blue lake waters, girt all about with a green wilderness of spruces, those on the far side extending up a slope to the Barrens on the summit of a boulder-studded ridge 500 feet above the Iron Arm. On July 6 a bird came circling by, with a rapid, shrill call of *kee-kee-kee-kee*, running almost into a trill; and presently it alighted on a spruce top. For part of the time that it was in flight, it moved ahead rather slowly on fluttering wings, just as I had seen the species perform many years ago on its nesting grounds in Alberta and Mackenzie. Bent refers (1938:78) to this "slow, hovering flight" under

similar circumstances. Three days later I returned to the area and inspected many of the spruces for a nest, but found none. Possibly the nest was actually on the ground. Lewis (1922:512), for example, has recorded such a site along the Little Natashquan River; and Bent (1938:72), another one near Gafftopsail, Newfoundland. This time both birds of the pair appeared, constantly giving their cry and frequently making slow headway on fluttering wings. Now and then one would glide down to a spruce top and there continue to call. On the 13th, as the two birds performed in the usual manner, I secured some motion-picture film, while contending with the disadvantages of a horde of black flies, a headnet, and gauntlets. They would fly within a distance of about 35 feet.

The Pigeon Hawk has been recorded on all coasts of the Ungava Peninsula: south (Merriam, 1882b:237; Stearns, 1883:118; Townsend and Bent, 1910:14; Townsend, 1918:88; Lewis, 1922:512; Bent, 1938:70-72; Friedmann, 1950:691); east, north to Cape Chidley (Coues, 1861:216; Austin, 1932:70; Friedmann, 1950:691); north (Cape Chidley to Fort Chimo) (Hantzsch, 1929:31; Bent, 1938:80; Gabrielson and Wright, 1951:132); and west (Great Whale River and Stromness Island) (Manning, 1949:182; Savile, 1950:96; Manning and Macpherson, 1952:15). Although the species probably nests sparingly throughout the peninsula except perhaps in the extreme northwestern part, there are few previous records from the interior: across Ungava from Great Whale River almost to Fort Chimo (Macoun and Macoun, 1909:279); the Lake St. John area (Godfrey and Wilk, 1948:8); Lake Albanel (Godfrey, 1949b:17); and about 100 miles up George River (Hildebrand, 1950:60).

Falco sparverius sparverius Linnaeus
Northern Sparrow Hawk.

A single Sparrow Hawk was clearly and satisfactorily seen in coniferous woods just north of Shelter Bay, May 22.

Coues (1861:216) reports a Sparrow Hawk from Labrador, but is vague as to locality. The species is fairly common at Pointe des Monts (Comeau, 1923:423) and in the Lake St. John area (Godfrey and Wilk, 1948:8), and rare in the Lake Mistassini area (Godfrey, 1949b:17).

Canachites canadensis canadensis (Linnaeus)
Hudsonian Spruce Grouse; "Black Partridge"; Ilineo (M.). (Map 6.)

In the wilder parts of the interior, almost uninhabited by either

white men or red, it was surprising to find Spruce Grouse so sparsely distributed as they appeared to be in 1953. I actually met with only 19 in the entire season. Perhaps they were at a low point in their cycle of fluctuating numbers. Peak populations in 1933-34 and in 1943 have been noted by Gross (1937:22) and by Hildebrand (1950:60). Probably birds of this species are more readily detected on the ground in Ungava, where the pale creamy caribou lichen, *Cladonia alpestris*, provides a well-nigh universal background, than in more southerly regions, where the rather dark-colored forest floor is a more harmonious match for the bird's plumage.

On June 12 Ron Barrett reported seeing a Spruce Grouse near Abel Lake. On June 29 a dog at Knob Lake was noticed gnawing on the fly-blown body of an adult female; its crop contained many leaves (evidently *Vaccinium* sp.), a couple of stems, with capsules, of hair-cap moss (*Polytrichum* sp.), some unidentified buds, and a small quantity of gravel.

I found a skeleton on the shore of the Iron Arm, Attikamagen Lake, July 1. About July 6 I noticed an abandoned nest in a fairly open part of the spruce woods at the northwestern end of the Iron Arm, some 20 feet back from the shore. It was situated on a mound of perhaps the commonest moss of the region, *Pleurozium schreberi*, in a bed of Labrador tea; other plants near by were bunchberry and mountain cranberry. The nest was a slight collection of twigs, together with leaves of Labrador tea; it had an inside diameter of, say, 5 or 6 inches. It contained an entire, brown-speckled egg, approximately 41 mm. in length, and shell fragments of another. Identification was largely by process of elimination. On July 6 Robert Girardin and his geological party observed a mother Spruce Grouse and her brood in the woods near the Iron Arm. The young were so small that two of them were captured temporarily, while the mother charged right up to the human intruders.

It was not until August 11 that I saw my first live bird of the season—an adult female, walking over a spruce-clad knoll, among dwarf birch and caribou lichen (*Cladonia alpestris*), beside Mollie T. Lake. On the following day, near this lake, another female was seen, and a flying bird was heard; and on the 16th two more were reported by J. L. Véronneau.

On August 25 Fred Farah reported several Spruce Grouse along the road between Mile 224 Airstrip and the north end of Ashuanipi Lake. Two days later, near the latter point, I came upon a flock of three birds in an opening among mossy woods of black and white

spruce and balsam, with undergrowth of blueberry, Labrador tea, dwarf birch, mountain cranberry, bunchberry, *Pleurozium schreberi*, and *Cladonia alpestris*. After "collecting" and attending to one of them (an immature male), I found one of the remaining two birds (both in female plumage) perching on a fallen spruce trunk. It let me approach within a rod or so before walking away along the log, pausing several times to utter a low, throaty *pumh*, *pumh*. It also spread its tail a time or two. Presently it hopped down and walked away over the mossy ground to join the third individual. The latter was a shyer bird, and preceded the other in walking away from me. It kept spreading its tail nervously, and kept the feathers of its neck fluffed out. It also made occasionally a slight bobbing movement of the head. Finally one of the birds flew up into a tree, and so I left them. On the 29th I heard of five Spruce Partridges being killed in that locality.

Before offering an account of my next observations, it may be useful to present a summary of what has been previously published on the general nuptial behavior of this species. Most of what has appeared in print has been contributed by woodsmen or other laymen; apparently only two professional zoologists are included among the original observers. Probably all of the accounts to date pertain to the subspecies *canace*: in Maine (Manly Hardy, *in* Bendire; Gideon Stone, Luman Sargent, and Alva Coolidge, *in* Brewster; "Penobscot"; I. G. R.; Everett Smith); in New Brunswick (J. W. Banks, *in* Bendire); in Nova Scotia (W. L. Bishop); in Minnesota (W. J. Breckenridge, *in* Roberts); and in unspecified localities (Audubon; D. G. Elliot; J. L. Devany). There is little likelihood of any marked deviation in the behavior of *C. canadensis canadensis* from that of *canace*.

Audubon's account (1834, 2:438) is rather sketchy; it scarcely bears the ear-marks of first-hand observation. Perhaps it was derived from his friend, Thomas Lincoln, of Maine:

"The males pay their addresses to the females by strutting before them on the ground or moss, in the manner of the Turkey Cock, frequently rising several yards in the air in a spiral manner, when they beat their wings violently against their body, thereby producing a drumming noise, clearer than that of the Ruffed Grouse [*sic*], and which can be heard at a considerable distance."

The male drums in the air, always while descending from a branch 15-20 feet from the ground; it flies back to a limb in the ordinary manner. Close at hand, the drumming sounds louder than

that of the Ruffed Grouse under the same conditions. ("Penobscot" (=David S. Libbey), 1878:131.)

The male flies up into a tree 10-15 feet, producing a loud sound in this ascent by beating the sides with the wings. It descends noiselessly, and soon repeats the same operation. It is accompanied by one, two or three hens. (I. G. R. (=J. G. Rich), 1879:684.)

It drums on the trunk of a small standing tree (preferably one that is leaning) and flutters upward with rapidly beating wings, which produce the drumming sound. After ascending 15-20 feet, it "glides quietly on wing to the ground and repeats the maneuver." The "drumming trees" are well worn. (E. Smith, 1883:26.)

"Penobscot" (1883:125) reiterates that the drumming is performed while the bird is descending, in a small spiral. He notes Smith's variant account (see preceding paragraph).

In strutting, the tail stands almost erect; the feathers of the throat and breast are raised; the comb is enlarged; the expanded tail is moved from side to side; "the two center feathers do not move, but each side" of the tail "expands and contracts alternately with each step as the bird walks." It flies up to a perch and back to the ground, making all the noise it can. Then it thumps some hard substance with its bill. Sometimes it sits, making peculiar nodding and circular motions of the head. (Observations on a bird in captivity.) (Bishop, 1890.)

After strutting for a few minutes, a bird flew straight up about 14 feet, and while suspended there it did the drumming with the wings, "resembling distant thunder." It then dropped slowly down to the starting spot, and repeated over and over again. (J. W. Banks, *in* Bendire, 1892:52.)

Manly Hardy's father told him that the birds drummed in the air while descending from a tree (Bendire, 1892:53).

"In autumn . . . I have seen an old male . . . strut about with ruffled feathers and trailing wings" (Elliot, 1897:101). The same author (p. 102) adds further details concerning the display as it is given in the spring:

"His head is drawn back and the bright blood-red combs stand erect and stiff above each eye; the feathers of throat and breast are raised and puffed out, and the wings are lowered and slightly open; while the outspread tail, occasionally closed with a swift movement, is elevated above the body. . . . The bird moves about slowly, with mincing, jerky steps. . . . When in the act of strutting he suddenly flies upward but not very high, keeping the wings moving at a very

rapid rate, and after holding himself stationary for a moment in the air, descends again slowly to the ground."

Devany (1921) describes the autumn drumming. The location is between two trees 20-30 feet apart. The bird "pitches downward, pausing midway to beat and flutter his wings, and ascends to a branch of the opposite tree." The maneuver is repeated by the hour, at regular intervals. Again, in the center of the open space, the bird "pops up a few feet in the air and giving his triumphant flutter drops again to earth." The drumming "has neither the roll nor the volume" of that of the Ruffed Grouse; "it is in fact little more than a flutter." It may be heard in any month of the year.

The bird flies from the ground on rapidly beating wings to a branch of a tree, then returns to earth. During both ascent and descent it produces a sound much like a Ruffed Grouse's drumming, but less loud. (Gideon Stone, *in* Brewster, 1925:282-283.)

A cock and a hen were together on the ground. The former flew off, vibrating its wings with great rapidity, and mounted upward in spiral course around a large balsam, producing a continuous drumming sound. After alighting on a branch and resting a moment or two, it flew down, spiraling around the trunk, with the same sound of wings. It then strutted about its mate, with wide-spread tail. All this was repeated 15 or 20 times. (Luman Sargent, *in* Brewster, 1925:283.)

Alva Coolidge (*in* Brewster, 1925:283) describes an autumn performance. A male flew up from the ground (where it had been accompanied by a female) with no more than the usual whirring, to perch for a moment on a branch. It returned slowly to the ground at an angle of about 45°, with legs dangling, tail depressed, and exceedingly rapid wing beats. On this descent—but not on the ascent—it produced a peculiar sound not unlike the muffled terminal roll of a Ruffed Grouse. Then it ran over the ground with drooping wings and wide-spread tail.

The most detailed description comes from W. J. Breckenridge (*in* Roberts, 1932, 1:369-372); it deals with performances in Minnesota in May. These took place among spruce and jack pine, in openings about 30-40 feet by 10-20 feet. A male flew from the limb of a tree toward the other side, checking its flight above the landing-place by spreading its tail, then with whirring wings dropping to the ground. The sound is merely a normal whirring of wings, somewhat increased in volume. The bird flew straight up to a perch overhead. Then it flew to the opposite end of the grounds, repeating the pre-

vious performance. The "round trip was made on an average of every one minute and forty seconds." After an interval (of some days?), the bird began to strut in the proudest manner, and became an entirely different creature. The tail was raised to the perpendicular and slightly spread. The black under tail-coverts were "raised in varying degree." The "wings drooped nearly to the ground." The head was thrown back till it almost met the tail. The red comb was erected and expanded. The neck and breast feathers were erected. The bird moved about with slow, dignified steps. Meanwhile the tail was opened slightly and tilted from side to side. Occasionally the bird stopped and picked energetically at the ground. It would throw its head forward and upward slightly, and at the same time spread its tail well beyond a semi-circle. The opening and closing of the tail-feathers were accompanied by two plainly audible sounds like quick strokes of sandpaper across a board. An upward tilting of the head at the same time suggested that the sound might be partly vocal.

From the foregoing accounts, we may conclude that there is a certain amount of geographical, seasonal, and individual variation in the display. However, if all the earlier observers had been as well trained as the last one quoted (Breckenridge), there may not have been so much variation in the accounts.

The most interesting observations that I had the good fortune to make on any bird species during the season had their setting in our camp area among fairly open spruce timber ("lichen woodland") at the north end of Carol Lake. About 7 A.M. on September 18 (temp. 28.5° an hour earlier) I had packed up my gear, preparatory to returning by plane to Ashuanipi Lake, when one of my companions sang out that a "Spruce Hen" was walking into camp. I seized my movie camera and hastened to the spot, where I found the bird sitting quietly under a spruce. Presently a male and another female were noticed near by. It was not long before the male began to put on a display that seemed astounding for that season of the year. While moving slowly over the ground, it did much in the way of upturning and spreading its tail, fanlike, and twitching it spasmodically from side to side (as described by Bishop). Two or three times it even gave a slight beat or two with its wings, suggestive of the initial strokes in a Ruffed Grouse's drumming. Meanwhile it generally kept between myself and the hens; at least part of the time it was in close proximity to one of the latter. It also pecked on the ground several times; whether this was a ceremonial part of the dis-

play (as with a domestic rooster), or merely utilitarian food-gathering, I did not determine. The former, however, is suggested in the accounts by Bishop and by Breckenridge. Meanwhile I was in the open at no greater distance than about 25 feet. Several times, when pressed a bit, one or two of the birds flew up into the spruces, alighting at a height of perhaps 8-10 feet.

Another part of the display on the ground consisted of bobbing the head up and down, with a concomitant puffing out of the breast feathers. This last feature suggested the possible simultaneous utterance of some low note; yet, in my preoccupation with photography, I detected no vocal sound. The feathers on the front of the neck were generally expanded during the strutting, as mentioned by Bishop and by Breckenridge. It would appear from plate 4 that these black feathers are widely expanded not only laterally but perhaps a little toward the rear as well. Just as ducks in nuptial display manage to emphasize some of their most conspicuous markings, so the Spruce Grouse, by spreading and elevating its tail, makes a fine show of the brownish tips of the main feathers and also of the white spots on the black, fluffed-up under tail-coverts. The swollen vermilion combs also show to advantage.

After a time two more males appeared in the offing, and the original male flew after them as if to drive them off. Strange behavior for September! Meanwhile the two females had manifested no behavior out of the ordinary; at one time one of them seemed to be picking blueberries (*Vaccinium angustifolium*).

While the male had been flying up into a tree, or down again, it produced no sound that could be considered drumming—nothing more than the whirring sound of normal flight. Perhaps an increase in the volume of the sound is restricted to the proper nuptial season in May or June. To produce such a drumming sound in flight, the bird must alter the force or extent of its wing strokes in some way as yet undetected or unexplained.

After exposing 60 feet of film, and then attending to some necessary details of preparation for departure, I went forth again half an hour later and located one of the birds a hundred yards or more from camp. I was just starting action with the camera when the whirl of a plane overhead served notice that these intimate glimpses into the life of *Canachites* were at an end, at least for that day.

On September 30, an adult male flew up from beside a road 3.5 miles east of Knob Lake and dropped into low woods of black spruce, tamarack, and willow, where I obtained it. A couple of

miles to the west another male rose from a roadside puddle and alighted about 8 feet up in a small black spruce. It trustingly allowed me to approach within 6 feet, taking a series of photographs; yet it was sufficiently agitated to utter a low, guttural *kuk-kuk-kuk-kuk*. There was mud on its bill, perhaps from picking gravel out of the puddle, the rest of the landscape being under 6 inches of snow. On my final trip along this road to the old airstrip, October 8, the car flushed two Spruce Grouse in one place and a third in another.

The following notes were contributed by various friends or acquaintances. According to Alphonse Bourgeois, there are Spruce Partridges about Seven Islands. Wallace Mansbridge reported them commoner than "Brown Partridges" (*Bonasa*) at Mutton Bay. The former are common at Gad Lake (A. E. Boerner). Cyrille Dufresne reported a nest with three eggs near Manitou Lake, about June 18-20. There are many of these birds at Eric Lake (Willé Pinette). The "Black Partridge" (*Canachites*) is commoner than the "Brown Partridge" at Lac de Morhiban (Philip Loth). Peter Almond and his geological party spoke of frequently finding Spruce Grouse in the vicinity of Carol Lake. A family party of at least six individuals was noted near Trough Lake in August (Remi Kelly). The leader of a geological party at Nachikapau Lake reported many thereabouts. Robert Slipp observed this species in sedge bogs about Lac Aulneau in 1953, and in similar places between Knob and Ossokmanuan lakes in the previous season. J. L. Véronneau reported one bird near Leroy Lake, August 21, and three near Scott Lake, September 1, 1953; also a few in the vicinity of Mistassibi River, about 80 miles north of Lake St. John, on February 7, 1954. Three were seen at Lac Aulneau about September 1, 1954 (Fred Farah). In 1952 Arthur C. Newton found the species in the Fort McKenzie area, and Robert Leslie saw many, including young, at Mogridge Lake. In 1949, from June to September, Dr. F. D. Foster observed Spruce Grouse at Whiteman, Molson, Evening, Menihék, Astray, and Wishart lakes, including a female with a brood of five chicks about two days old at Molson Lake, July 7, and one with two young at Evening Lake, July 27. At the headwaters of Nemiscau River J. L. Véronneau (*in litt.*, June 26, 1955) saw four birds on January 21, two on February 12, and one on March 6, 1955.

In the adult female of August 11 the iris was olive-brown; bill fuscous; tip of bill and lower side of mandible paler; toes pale plumbeous; nails dusky with lighter tips. The bird was molting and

had little fat; weight, 515 g.; ovary, 12×8 mm. In the immature male of August 27 the iris was olive; bill fuscous, extreme tip brownish olive; it had little fat; weight, 450.7 g.; testes, 4×2.75 mm. (black). In the adult male of September 30 the iris was olive-brown; comb vermilion; bill fuscous, brownish horn color at tip; base of mandible horn color; toes plumbeous; nails dusky; it was not very fat; weight, 521.2 g.; testes, 5×2.5 mm. (black). Its proventriculus and gizzard were crammed with fine gravel; they also contained some seeds and other vegetable matter. This last bird alone yielded Mallophaga—six *Goniodes corpulentus* Kell. and Mann.

The photograph of a displaying male at Carol Lake (pl. 4) shows that the under tail-coverts are predominantly black, with about a dozen white spots at the tips of the feathers. On the other hand, the white tips, covering approximately the distal 10 mm. of the under tail-coverts in males of *C. c. canace* from Maine (specimens in Academy of Natural Sciences of Philadelphia), all but conceal the black basal portions of the feathers when in a normal flattened position, as indicated on a plate by Fuertes (in Forbush, 1927, 2: pl. 34). Probably the different impression produced by these tail coverts in a displaying bird results from their expanded position.

The Spruce Grouse occurs throughout the wooded parts of the Ungava Peninsula. The population of the St. Lawrence region, from Lake St. John to the Strait of Belle Isle, is regarded by Rand (1948: 39) as *C. c. canace*. That of the more northerly areas is referred to *canadensis*. Some of the more important sources of distributional information are: for the south coast—Stearns (1890?:46); Palmer (1891:261); Townsend and Bent (1910:13); Comeau (1923:17, 197); Eidmann (1937:161); Uttal (1939:462); Rand (1948:39); for the east coast, north to Nain and Okak—Austin (1932:71); Lincoln (*in* Bent, 1932:128); Gross (1937:22); Uttal (1939:460); Friedmann (1946:143); Rand (1948:39); for the northernmost limits (Fort Chimo, and Kopaluk on George River)—Turner (1885:245); Hantzsch (1929:12); Lincoln (*in* Bent, 1932:128); Hildebrand (1950:60); for the coastal areas of Hudson and James bays, north to Richmond Gulf—Manning (1949:182); Savile (1950:96); Manning and Macpherson (1952:15). Records for the interior are: upper Nascaupée River (Mrs. Hubbard, 1906:537); Windbound Lake, Lake Disappointment, head of Beaver River, Goose Creek, and Susan River (D. Wallace, 1906:149, 204, 205, 209, 232, 251, 252); lower Nascaupée River and near Lake Desolation (D. Wallace, 1907:27, 105); near Seal Lake and at Michikamats Lake (Mrs. Hub-

bard, 1908:78, 79, 123); Fraser River (Prichard, 1911:127); St. Augustin River (Bryant, 1913:12); Kenamu River (Leslie, 1931:212); Hamilton River basin (Merrick, 1933:20, 52, 65, 74, 75, 77, 116, 135, 143, 186, 193); a tributary of Little Mecatina River (Stainer, 1938:157); Panchia and Mushalagan lakes (Manning, 1947:80); Lake St. John area (Godfrey and Wilk, 1948:8); Lakes Albanel and Mistassini (Macoun, 1886:35; Godfrey, 1949b:17).

Bonasa umbellus umbelloides (Douglas)

Northern Ruffed Grouse; "Brown Partridge";

Gelinotte (Fr.). (Map 7.)

A hunter, gun in hand, passing along a street in Seven Islands on October 10, said he was going after "Gelinottes." A fair number of Ruffed Grouse are reported in the neighboring woods by Alphonse Bourgeois. He presented me with the tail of a specimen (gray phase) taken thereabouts in November, 1952? Robert Leslie spoke of seeing a few about Mogridge Lake, northeast of Mount Wright. The species occurs also about Mutton Bay (Wallace Mansbridge) and Lac de Morhiban (Philip Loth).

The preservation of the tails for decorative purposes is evidently a local custom of some interest, perhaps, to ethnologists or sociologists as well as to ornithologists. Frazar speaks (1887:33) of "seeing the tail of one tacked to the wall of a house at Esquimaux Point." Townsend and Bent remark (1910:13): "A tail of this species decorated a house at Natashquan."

The Ruffed Grouse is found through the southern part of the Ungava Peninsula, north to Lake Albanel (Godfrey, 1949b:18) and "the head of Hamilton Inlet" (=Lake Melville) (Turner, 1885:245). See also Frazar (1887:33); Low (1896:325); Comeau (1923:17, 284, 424); Austin (1932:73); Lincoln (*in* Bent, 1932:165); Aldrich and Friedmann (1943:99); Snyder and Shorrt (1946:122, fig. 1); Friedmann (1946:184); and Godfrey and Wilk (1948:9). The birds of this region have been variously referred to *B. u. togata* (Linné), *B. u. umbelloides* (Douglas), and *B. u. obscura* Todd (= *B. u. canescens* Todd).

Lagopus lagopus ungavus Riley

Ungava Willow Ptarmigan; "White Partridge";

Perdrix blanche (Fr.); Oapineo (M.). (Map 8.)

This Ptarmigan occurs sparingly as a summer resident in the interior of the Ungava Peninsula from about latitude 52° northward. At this season it is mostly limited to the treeless summits of

the ridges and mountains, though it also seems to range downward to a slight extent just below the timber-line. Several conflicting reports were received as to its presence or absence in the summer about Mile 134 of the railway (west of Eric Lake); perhaps the "summer" reports pertained actually to early fall migrants. According to my Montagnais friend, Jérôme St. Onge, the species occurs in summer on the high ridges about Wabush Lake (lat. 53°), and some 25 miles farther south (where a number of ridges rise above 2,000 feet, as shown on the Ashuanipi sheet of the National Topographic Series), but not so far south as Mile 134. Garth D. Jackson gave a satisfactory description of Ptarmigan that he had seen in summer south of O'Brien Lake (about 8 miles west of Wabush Lake), in an area that was rather bare (perhaps burnt), though actually 200-300 feet below the tree-line. He had probably also seen some in early August at Nip Lake (southwest of Wabush Lake) just below timber-line. (The map indicates an elevation of 2,500 feet just east of this lake.)

A few Ptarmigan spend the summer about Burnt Creek, in rather open or scrubby areas not far from timber-line. On open ground at the big garbage dump of this settlement I came upon a pair on June 30. The male, with prominent reddish combs, flushed in front of a dog, flying off with a guttural call sounding somewhat like *guk, guk, guk*. This call became a sort of rattle as the bird alighted at a little distance. When the female presently flushed, and then alighted, it gave a similar but less guttural call, sounding more like *kuk, kuk, kuk*. This bird twitched its tail in the manner I have described (1953:34, 35, 38) for Willow Ptarmigan in Keewatin; also it bobbed its head. Toward dusk on August 8 I noted a female in an area of dwarf birch beside a pond just west of Burnt Creek. This time I represented the call as *kut; kut; kut*.

In early June, in burnt tracts in the Knob Lake area, I had noted a good many piles of ptarmigan droppings, some of them moderately fresh-looking. There were generally several within a radius of a rod or two, probably representing roosting-places of a flock in the snow of the previous winter or spring.

I had hoped to secure specimens in this area, at least when the migrant flocks came down from farther north in the fall to vastly augment the local birds. On September 12 J. L. Véronneau saw 10-12 of them at Harris Lake. By September 30 tracks in snow on a high ridge near Burnt Creek were reported by Jérôme St. Onge. On the same day I found other tracks on the treeless ridge east of Dolly

Lake. On October 1, while riding in a jeep with Gilbert Simard over the ridges for a distance of 10–12 miles north of Burnt Creek and keeping a special lookout for Ptarmigan, I found no evidence of them whatever. A further quest the next day, between Knob Lake and Burnt Creek, was without avail. An all-day hunt over the Ruth Lake Ridge (2,250 feet) on October 5, with temperature near the freezing-point, brought me the sight of two flocks, of about six individuals each, and yet no specimens. Both were on the wind-swept summit; both flushed wild and soon passed on out of sight. After my experience with the species in Keewatin in 1947, I was utterly unprepared for such wildness. (Richard Geren remarked that the behavior of local birds is thus on windy days, and that on calm, sunny days they are more approachable.) The birds of the first flock had a good many feathers remaining from the summer plumage; in fact, one of them seemed to have advanced scarcely at all toward the winter plumage. On the other hand, those of the second flock were practically all white, except for the tail. As the first flock took wing, they seemed to call *kuk-kuk-kuk-kuk*. They made a spirited spectacle, winging over the snowy heights, now flapping, now sailing to alight, or walking or running over the ground to put distance between us. For a little while one of the birds mounted on what was probably a yard-high spruce, as if to keep watch while the others scurried on. This was my final—and highly discouraging—sally after Ptarmigan. Dr. F. D. Foster spoke of seeing about 30 birds on October 7 between Knob Lake and the old airstrip.

Allen Thompson reported seeing Ptarmigan, including young ones, at about the middle portion of Michikamau Lake (probably in 1952). Robert Slipp had seen no Ptarmigan in the summer at Lac Aulneau, but said that prospectors had found them plentiful north of the Koksoak River.

In winter there is a great increase in the numbers of Ptarmigan in the Knob Lake area and elsewhere in the interior, including points south of the summer range. A flock was reported at Mile 198 on October 8. In the winter of 1952–53 Charles Grace found considerable numbers at Miles 115, 134, and 142—especially on plains near Mile 134. They occurred in flocks of 35–40 and even more. He showed me photographs of some of the birds. Near Mile 127 there were hundreds on each side of the road in early October, 1952 (John C. V. Bishop). There are many in winter at Eric Lake (Willé Pinette). At Lac de Morhiban great numbers appeared in late October, 1952?; toward the end of May flocks, numbering up to 30–40 indi-

viduals, were passing northwest all day long, at a height of 200–300 feet (Philip Loth). According to Robert Leslie, 36 Ptarmigan were shot in May on top of a mountain near Mogridge Lake; the remaining birds left presently, presumably for more northerly summer quarters. The species is said to occur in winter at Havre St. Pierre. At Mutton Bay there are not many in winter, and only a few in summer (Wallace Mansbridge).

About the beginning of April, 1953, J. L. Véronneau saw 15–18 Ptarmigan on the Rat River, at about latitude $49^{\circ} 15'$ (north of Lake St. John). In the fall and winter of 1953–54 he saw many Willow Ptarmigan from a point 40 miles north of Dolbeau to the head of Rat River, near latitude 50° . There were never more than six together, and generally only two; they were on burnt tracts, cut-over lands, sides of roads, and rivers and lakes. The local bushmen said that when the "White Partridges" come down, it is because of sleet in the more northerly areas where they usually pass the winter. In January and February, 1955, Véronneau saw a few Ptarmigan and many tracks about the headwaters of the Nemiscau River. In the following January he noted two of the birds on a lake in the Lac Ochiltrie area.

Some of the foregoing winter records, from points little more than 100 miles from the Gulf of St. Lawrence, suggest that at least some of the birds appearing along the North Shore of the Gulf may reach that area directly through the interior rather than around the coast by way of the Strait of Belle Isle.

Cabot (1920:348) is possibly the only author who has remarked on the rosy tint of the winter plumage of the Ungava Willow Ptarmigan (*cf.* Harper, 1953:43). His observation was made toward the divide north of Lake St. John.

The Willow Ptarmigan breeds in the more or less treeless eastern part of the south coast of the peninsula, as far west as The Bluff Harbour (Couper, 1868:12; Lewis, 1928:192; Hewitt, 1950:74–75), where Arctic conditions may be simulated if not actually realized. In winter it occurs along this coast irregularly, but sometimes in considerable numbers, as far west as Godbout or even the Saguenay River (Merriam, 1882b:238; Frazer, 1887:33; Townsend and Bent, 1910:13; Comeau, 1923:17, 284–294, 434, map on p. 289). Along the Atlantic Coast it is a permanent resident (Low, 1896:44; Austin, 1932:74; Lincoln, *in* Bent, 1932:189; Frazer, 1950:126). Records in the far north of the Peninsula include the following localities: Fort Chimo (McLean, 1932 (1849):223, 243; Turner, 1885:245); Killinek

area and Ungava Bay (Hantzsch, 1929:12); Leaf Bay and Lakes Mendry and Berthet (Hildebrand, 1950:60; Bateman, 1953:5); Whitefish Lake and False River (Gabrielson and Wright, 1951:133); Gregory Lake and Korak Bay (Manning, 1949:182). Manning remarks that "perhaps [these Ptarmigan] do not nest in the extreme north of the peninsula"; also that "some Baffin Island birds [*L. lagopus leucopterus* Taverner] presumably winter in Ungava." The great numbers that sometimes appear at Fort Chimo in the fall or early winter might conceivably include a proportion of *leucopterus*, although actual records are lacking. Localities in the western coastal area include the Nastapoka and Great Whale rivers (Bent, 1932:190, 198; Savile, 1950:96) and various points on James Bay, where the birds breed south about to Factory River (Manning and Macpherson, 1952:16). The following records from the interior are evidently nesting localities: upper Hamilton River (Low, 1896:325); Richmond Gulf to Clearwater Lake (Low, 1898:11); upper Nascauppee River (Mrs. Hubbard, 1906:537); Lake Bibiquasin, near Michikamats Lake, upper and middle George River, and east of Whale River (D. Wallace, 1907:96, 123, 140, 153, 184, 193, 195); near Windbound, Michikamau, and Michikamats lakes, and south of Indian House Lake (Mrs. Hubbard, 1908:107, 114, 119, 128, 164, 166); Mistastin and upper Assiwaban rivers (Cabot, 1912:142); Bush, Scoter, and Minto lakes (Manning, 1947:76, 80); Lake Bienville, and Richmond Gulf to Ungava Bay (Manning, 1949:182); Eastmain Hills, north of Lake Mistassini (Godfrey, 1949b:18); Otish Mountains (Pomerleau, 1950:14); Lake Aigneau, Leaf River, and Payne Lake (Eklund, 1957:73). Wintering grounds in the interior include Nichicun Lake (Low, 1896:100), the Hamilton River basin (Merri-ck, 1933:112, 120, 163, 167, 169, 170, 225, 345), the Lake St. John area (Godfrey and Wilk, 1948:9), Lake Mistassini (Macoun, 1886:35; Godfrey, 1949b:18), and Lower Seal Lake (Doutt, 1942:65).

In the wooded part of the peninsula the species appears to be entirely absent in summer between the St. Lawrence and approximately latitude 52°, and to breed north of that line only at the higher elevations, either in the scrubby areas (of dwarf birch, *etc.*) near the timber-line or in the Barrens above it. In other words, it does not breed in the Hudsonian Zone except at its very upper or outer edges (*cf.* Harper, 1953:46-47). Aside from a few scanty notes in Turner's manuscript (quoted in Bent, 1932:198), almost nothing seems to have been published on the exact nesting *habitat* of the Ungava Willow Ptarmigan.

The above distributional summation includes certain records (especially from the North Shore of the Gulf) that have been referred to *L. l. albus*. The taxonomic status of the breeding population of this area seems to be in distinct need of further investigation. The A. O. U. *Check-list* of 1957 assigns these birds, and likewise those of "south-central Quebec" (wherever that may be), to *albus*. However, as I have remarked previously (1953:47), "The nearest other breeding population of *albus* is possibly on the west coast of James Bay, some 800 miles distant!"

***Lagopus mutus rupestris* (Gmelin)**

Hudson Bay Rock Ptarmigan; Keske tshish (M.).

On August 15 my Montagnais friends, Georges Michel and Ben McKenzie, brought me an adult male Rock Ptarmigan that they had secured in the Barrens about half a mile north of the summit of Geren's Mountain, at an altitude of roughly 2,600 feet. This was a rather startling find, for I would scarcely have expected it to occur in summer in this longitude at any point nearer than the extensive Barrens beyond the Koksoak River, nearly 200 miles to the north. They saw no other Ptarmigan thereabouts, and this one did not fly before it was shot. It remains to be determined whether Geren's Mountain is a regular summer habitat of the species, or whether it was merely the haunt of an isolated and possibly injured individual, left behind on the spring migration. (I am inclined toward the former view.)

The comb of this specimen was orange-red; bill fuscous, tip slightly paler, basal part of mandible horn-color; nails basally brownish horn-color, tips dusky. The bird was molting, and had some fat; testes, 6×4 mm. Its weight was 459.5 g.—less than that of any of nine November specimens that I secured in Keewatin (1953:51). The wing measures 183 mm., compared with an average of 190.7 mm. for three adult males taken in Keewatin. The first primary is old and frayed; the second has attained only about half its full length.

Norman Delmage spoke of seeing a Ptarmigan, which he believed to be of this species, in approximately the same area, in the fall of 1951 (probably September), when there was no snow. It was notably gray, and fairly uniformly colored. He has seen a good many winter birds in the Knob Lake area—probably for the most part in late winter or spring; they were distinguished by a black stripe through the eye. J. L. Véronneau (*in litt.*, May 14, 1956) saw many

Ptarmigan in the previous winter in the Lac Ochiltrie area, including some identified as the present species by the black mark near the eye.

This species evidently breeds exclusively in the Arctic Life-zone. On the east coast nesting records scarcely extend south of Ramah, but in winter the birds may range south to the Strait of Belle Isle (Austin, 1932:79). There are also a few reports of winter birds on the south coast: Bras d'Or (Audubon, 1834, 2:531, and 1838, 4:483); Cape Whittle (Frazar, 1887:33, as "Mountain Partridge"); and unspecified localities (Stearns, 1890?:50). There is even an unverified report by Comeau (1923:284) of several coveys in July and August, 1907, on the higher ranges east and west of Washecootai River. The species breeds along practically the entire north coast, from Cape Chidley (Hantzsch, 1928:36) at least as far as Sugluk (Manning, 1949:184); and on the Hudson Bay coast south to Mistake Bay and an inland point 25 miles north of Port Harrison (Manning, 1949:184), and perhaps to Nastapoka River (Taverner, 1929:30). It proceeds farther south in winter, to the coast of James Bay (Manning and Macpherson, 1952:17).

There are summer records from the interior Barrens near the head of Beaver River (about midway between Grand Lake and Michikamau Lake) (D. Wallace, 1906:117), on the Mistastin River (Cabot, 1912:143), at McGill Lake (Manning, 1949:184), in the Chubb Crater area (Martin, 1955:491), and at Payne Lake, Lakes Ptarmigan and Maryland, and Povungnituk River (Eklund, 1957:73). Winter records from parts of the interior south of the tree-line include: Hamilton River (Low, 1896:325); near Ossokmanuan Lake (Merrick, 1933:191, as "barrens partridges"); Lower Seal Lake (Doutt, 1942:65); and "the high barren country 150 to 200 miles inland" from James Bay (Manning and Macpherson, 1952:17).

***Fulica americana americana* Gmelin**

American Coot.

A Coot, having strayed well beyond its normal range, appeared on June 5 on Pierce Lake. It came swimming along the shore within 30 feet of me. Later, at some distance, it stood on a log or rock close to shore, its white bill gleaming against its black head. Having no thought of the possible occurrence here of the European Coot (*F. atra atra*) (of which two individuals were blown across the Atlantic to Labrador, and three to Newfoundland, in December, 1927), I unfortunately made no note as to the presence or absence

of white under tail-coverts. The chances are highly in favor of this bird being the American species.

From the east coast, there is a specimen collected at Table Bay (1913) and two reports—one from Nain (1880) and one from Sandwich Bay (1889) (Austin, 1932:81). On the south coast Gross (1937:23) has recorded a December specimen from Mecatina Island. The basis for Ekblaw's statement (1926:110) that "on the inland plateau . . . the coots . . . nest in numbers" is not evident; possibly there is confusion with the Scoters (frequently called "Coots"), of which there is no mention by Ekblaw.

Charadrius semipalmatus Bonaparte
Semipalmated Plover; Ringneck.

Two of these birds appeared at the muddy edge of a pond at Burnt Creek, June 3. A slightly belated individual ran and flew along the sandy shore at Seven Islands, October 11.

The Ringneck breeds on most parts of the coast of the Ungava Peninsula, under conditions at least approximating—and generally realizing—those of the Arctic Zone: south (Townsend and Bent, 1910:13; Lewis, 1931:74–75, 77); east, throughout (Austin, 1932:82; Gross, 1937:24; Lincoln, *in* Bent, 1929:225); north, Cape Chidley to Cape Wolstenholme (Turner, 1885:246; Hantzsch, 1929:11; Manning, 1949:185; Hildebrand, 1950:61; Bateman, 1953:5); and west, Cape Wolstenholme south at least to Paul Bay (Manning, 1947:76, 81, and 1949:185; Manning and Macpherson, 1952:17). Payne (1887:77) reported a remarkable observation at Stupart Bay: an adult picking up a young one and flying with it. On the south coast the breeding records seem to extend only from the Mingan Islands eastward. The species is known only as a transient in the Lake St. John area (Godfrey and Wilk, 1948:9) and at Lakes Albanel and Mistassini (Macoun, 1886:35; Godfrey, 1949b:18). It was found in the Chubb Crater area sometime between July 25 and August 20 (Martin, 1955:491), and at Leaf River, Lake Aigneau, and Gregory Lake in July (Eklund, 1957:73).

Actual evidence of nesting in the wooded interior seems to be lacking. Although Manning (1949:185) found a number of birds at Lake Bienville in late June and early July, they may have been non-breeders, for "no indication of nests was seen." The two individuals he reports at Coates Lake on July 28 may have been early fall migrants. After spending the entire summer on various lakes in the interior, without seeing any of these birds after June 3, I feel rather

skeptical as to the implication in Low's slightly ambiguous statement (1896:324): "Common on Upper Hamilton River. Seen June 16th. Breeds."

***Squatarola squatarola* (Linnaeus)**
Black-bellied Plover.

My only observation was of one or two birds, seen and heard along the Gulf shore a few miles east of Seven Islands, October 11.

With a main breeding range extending from the Melville Peninsula westward along the Arctic coast to Alaska, it is scarcely surprising that in the higher latitudes the migratory path for the bulk of this species should lie no farther east than James Bay. Such a state of affairs must account for the paucity of records from the Ungava Peninsula. It would appear that the large numbers arriving on the coast of our Northeastern States, spring and fall, must travel more or less directly between that region and James Bay. Such a route leaves practically all but the western shore of the Ungava Peninsula to one side. On occasion, a flight of some 900 miles from, say, Cape Cod to James Bay probably could be accomplished without a pause by such strong, swift fliers.

Many years ago the Blackbelly was reported as a common migrant on the south coast generally (Stearns, 1890?:50), but as rare and irregular at Pointe des Monts (Merriam, 1882b:238). Eidmann (1937:161) noted one near Matamek River in September. It appears to be an exceptionally rare autumnal visitant on the east coast (Austin, 1932:85) and unknown on the north coast of the peninsula. On the east side of Hudson Bay there are two September records at Great Whale River (Savile, 1950:97). There are a few August records from the east side of James Bay, from Roggan River to Paint Hills Islands (Manning and Macpherson, 1952:17). There is a single record from the interior—Lake St. John area, June 8 (Godfrey and Wilk, 1948:10).

***Capella gallinago delicata* (Ord)**

Wilson's Snipe; Ka moskoashst—or Otitipesho? (M.). (Map 9.)

Although the numerous and extensive sedge bogs of the interior would appear to constitute thoroughly suitable breeding-grounds for Wilson's Snipe, my observations were comparatively few, the total number of individuals seen being probably no more than seven. Two birds were noted early on the blustery, snowy morning

of June 3 at a marshy pond beside Burnt Creek. From June 17 to 20 from one to three birds were found at a wide moss-sedge bog a mile north of Knob Lake (pl. 3). Here, on the 18th, I became aware of a strange-looking object going through some sort of contortion on wet ground among the sedges or grasses. At first, while not moving far, it gave a series of notes somewhat like the ordinary *scaipe*, then added a lot of *kyoo* notes. The wings appeared to be more or less extended. Presently it skulked along through the low bog vegetation and a little later took wing, repeating the rapid series of *kyoo* notes as it continued indefinitely to circle through the air. Once in a while it pitched down into the bog on a steep slant. After a time another Snipe jumped up from a near part of the bog, and both circled overhead at a height of 100 feet or more—the one constantly uttering *kyoo-kyoo-kyoo, etc.*, and the other occasionally “winnowing.” They were presumably female and male, respectively. There must have been a nest in the vicinity. Two days later, at this bog, with a temperature in the 40's, three birds at once made wide, speedy, and wonderful circles through the sky, against the clouds, supplying music with their constant vocal notes and with the eerie, feather-produced winnowing as well.

On September 30, at Knob Lake, I collected a male at a little pool of open water in a snowy, burnt-over muskeg. Its iris was deep brown; maxilla brownish olive, becoming fuscous on distal third; mandible light brownish olive, becoming fuscous on distal two-fifths; tarsus and toes pale olive-green. The bird was fat, and weighed 85.6 g.; skull rather soft; testes 4×1 mm. The stomach contained grit.

The second Montagnais name given above was supplied by Jérôme St. Onge while examining this specimen. The first name closely resembles the Naskapi “Kah mo skwa hast,” quoted by Austin (1932:87).

Wilson's Snipe does not appear to be common on the south coast (Merriam, 1882b:238; Lincoln, *in* Bent, 1927:95; Lewis, 1925:76), but it is considered locally common on the east coast north to Webb's Bay (Lincoln, *in* Bent, 1927:94; Austin, 1932:87). In the Ungava Bay area there are records from the vicinity of Fort Chimo (Turner, 1885:246), south of Leaf Bay (Bateman, 1953:5), and at False River (Gabrielson and Wright, 1951:134); on Hudson Bay, from Great Whale River (Lincoln, *in* Bent, 1927:94); and on James Bay, from Rupert House and from Moar Bay to Roggan River (Turner, 1885:246; Manning and Macpherson, 1952:18). In the interior the species has been found at Petitsikapau Lake (Low, 1896:324)

and at Lake St. John (Godfrey and Wilk, 1948:10). Its breeding range evidently does not extend far beyond the limit of trees.

Actitis macularia (Linné)

Spotted Sandpiper; Katsha kaskopiniot (M.).

Two birds of this familiar species were associated on the sandy beach at Seven Islands, May 23. In the interior of the peninsula it is a little commoner and more generally distributed than any of the other shore birds. One was noted on the muskeggy border of Camp Pond, June 9; two along Slimy Creek, June 13; and two together at the outlet of Knob Lake, June 28. On the Iron Arm of Attikamagen Lake single birds were seen on July 1, 8, and 10; two of these were on a small island that probably offered, as a nesting-site, a degree of protection from predatory terrestrial mammals. When I joined a field party at the Northwest Bay of this lake on July 14, I was shown a nest of four eggs in an open, comparatively dry muskeg close to the camp. It was situated perhaps 25 yards from the shore, among dwarf birch, *Vaccinium uliginosum*, crowberry, *Rubus chamaemorus*, *Equisetum*, and *Sphagnum*. It was about 3.5 inches in diameter and 1 inch deep, and was composed of twigs up to 78 mm. long and 3 mm. in diameter, together with dead leaves of dwarf birch and *Vaccinium*. The parent bird, though attending the nest up to the time of my arrival, did not reappear thereafter; and the eggs, being deserted and cold, were collected on July 21. One of them measured 32×24.5 mm.

One or two Spotted Sandpipers were seen at a pond close to Burnt Creek, August 8; one on a dock at Leroy Lake, August 21; and a loose aggregation of three immature birds on the rocky shore of Ashuanipi River below Ashuanipi Lake, August 27. The total number of different individuals observed in the interior scarcely exceeded a dozen.

The principal sources of distributional information are: south coast—Stearns (1883:119), Frazar (1887:33), Townsend and Bent (1910:13), Tyler (*in* Bent, 1929:78), and Lewis (1931:74-75, 77); east coast, north to Saglek Bay—Norton (1901:150), Lincoln (*in* Bent, 1929:93), Austin (1932:90), Gross (1937:24), and Grayce (1947:277); north coast (Fort Chimo, mouth of Koksoak River, and south of Leaf Bay)—Turner (1885:247), Gabrielson and Wright (1951:134), and Bateman (1953:5); west coast (Great Whale River to Moar Bay)—Savile (1950:97) and Manning and Macpherson (1952:18). In the interior there are records from the upper Hamil-

ton River (Low, 1896:324); Saguenay River (Tyler, *in* Bent, 1929:90); Panchia and Mushalagan lakes (Manning, 1947:81); the Lake St. John area (Godfrey and Wilk, 1948:10); Lakes Mistassini and Albanel (Godfrey, 1949b:18); and Bienville and Kinglet lakes (Manning, 1949:187).

***Tringa solitaria solitaria* Wilson**
Eastern Solitary Sandpiper.

The Solitary Sandpiper was observed only twice—once on the grassy margin of a pond half a mile west of Knob Lake, June 9; again in a muskeg on the north side of this lake, June 30. The latter bird was bobbing and calling *peet, peet*, as if perhaps concerned over my proximity to a nest. Presently it flew to a low stump, where it remained quietly. Lack of time prevented a search for a nest.

This species has been rather infrequently recorded from the Ungava Peninsula: on the south coast by Merriam (1882b:239), Stearns (1883:119), Townsend and Bent (1910:13), Lewis (1928:192), and Eidmann (1937:160); on the east coast, north to Okak, by Austin (1932:92); at Fort Chimo by Turner (1885:247); and at Moar and Paul bays on James Bay by Manning and Macpherson (1952:18). There is considerable question about Low's report (1896:324) from the interior, as explained by Austin; likewise about Macoun's report from Lake Mistassini, as explained by Godfrey (1949b:19). Cabot (1920:324) reports the species as apparently nesting near St. Paul River. A specimen was taken at Lake St. John (Godfrey and Wilk, 1948:10), and one by Spreadborough near Seal Lake (Manning, 1949:188). Since the species utilizes abandoned passerine nests in trees, it can scarcely extend its breeding range beyond the limit of trees.

***Totanus melanoleucus* (Gmelin)**
Greater Yellowlegs; Sheshesho (M.).

My experience with this species was much like that of previous observers in the peninsula—more or less indication of breeding, but no actual discovery of nest, eggs, or young unable to fly.

A bird standing in the edge of a marshy pond at Burnt Creek, June 3, indulged in a long-continued hollering: *kyoo-kyoo-kyoo, etc.* Then, as I approached, it changed to the more musical, three-syllabled note of the migration season: *wheu-wheu-wheu*. (The Montagnais name, *Sheshesho*, probably is onomatopoeic, in reference to this whistle.) On August 3 Richard Geren spoke of having seen

recently—apparently in the vicinity of Menihék Lake—a band of “Big Yellowlegs”; he thought there were young birds among them. On August 8 a group of eight alighted on the bare border of an artificial pond on the west side of Burnt Creek, where they uttered the usual whistle. They gave the impression of being engaged in a migratory movement.

On August 27 a single bird was noted on rocks in the Ashuanipi River just below Ashuanipi Lake. Two days later, as I was passing along a mucky road through an opening among spruce woods a little east of Mile 224 Airstrip, a Big Yellowlegs came flying over, to alight on the very tip of a 30-foot white spruce. Meanwhile it kept up a constant, shrill, almost ternlike yelling: *keeerp, keeerp, keeerp, etc.* This was a new sound in all my experience with the species. On its lofty perch the body and head were inclined a little forward, and the legs were bent at the tibio-tarsal articulation. The tail teetered somewhat (perhaps owing to the insecurity of the bird's perch in a breeze), and the head bobbed a little. In calling, the bird opened its bill to an extent equal at least to a third of its length. At first about 40 yards away, it kept its perch until I had approached within 30 yards. As I passed on, it flew to an adjacent boggy area, where it continued yelling. After a tour through the woods beyond, I returned by way of this boggy area, where I was greeted more vociferously than before. Here it not only perched in tree-tops (including, I think, dead as well as live tree-tops), but came swooping close overhead as it kept up its clamor. It indulged in this “dive-bombing” several times. Meanwhile a band of about a dozen Rusty Blackbirds (see account of that species) appeared and fairly mobbed the Big Yellowlegs. As the latter flew about in my vicinity (when not dive-bombing), it would fairly set its wings to move slowly through the air.

Presently I caught sight of another and apparently silent Yellowlegs flying off low over the bog and alighting in it. A little later another appeared standing among the marshy vegetation bordering one of the pools of water in the bog; it was bobbing rather steadily but apparently silently. Judging by their actions that these were young birds, I shot the second one and found it to be a juvenal male. Its iris was olive; distal half of bill black, remainder gray-green-plumbeous; tibia, tarsus, and toes rather dull greenish yellow. There was not much fat on the bird; it weighed 125.6 g.; skull soft; wing 140 mm.; testes 3.5×1.75 mm. In the abdominal cavity, apparently attached to the outside of the intestines, were numbers of

parasitic worms. From the feathers 16 Mallophaga were collected: one *Quadriceps austini* (Peters), the rest *Actornithophilus albus* Emerson.

These young birds must have represented a belated nesting—perhaps coming from a second set of eggs after the first had been destroyed. At this date a large proportion of the species would have been well down the Atlantic Coast on the way to winter quarters. The sum total of the old bird's actions seemed strongly to indicate that it was on, or close to, its actual breeding-grounds. On migration the species is scarcely known to perch in tree-tops or to show such solicitude for its offspring. The plant growth of the sphagnous bog where I found the birds included some small black spruces, along with *Chamaedaphne*, *Menyanthes*, *Smilacina trifolia*, *Eriophorum tenellum*, *Carex angustior*, and *C. pauciflora*.

On August 30 what was doubtless the same adult flew over me, protesting, along the margin of a neighboring boggy pond. On September 2 a flock of 11, whistling, passed over Mile 224 Airstrip and perhaps pitched down in the "Yellowlegs Bog." On the 3rd a distant flock of the same size, and probably the same species, appeared over this area. Also on this day, at the same boggy pond as on August 30, a bird swooped past me, screeching, then took its stand on a dead snag projecting above the marsh vegetation, where it continued its vociferations. On the 4th a single bird and a band of four, apparently of this species, passed over the same area. Another Big Yellowlegs flew over the pond on the 5th. On the 7th the usual whistle was heard from one or several birds along the near-by Ashuanipi River. At Carol Lake a flock of four responded to my whistle on September 11, and single birds were heard on the 12th and 15th.

Distributional data for the peninsula include: south coast—Merriam (1882b:239), Stearns (1883:119), Frazar (1887:33), Townsend and Bent (1910:13), and Lewis (1927:63); east coast, north to Okak—Austin (1932:93) and Gross (1937:24); north coast (mouth of Koksoak River, False River, and south of Leaf Bay)—Turner (1885:247), Lincoln (*in* Bent, 1927:332), Gabrielson and Wright (1951:134), and Bateman (1953:5); west coast (Povungnituk south to Paul Bay)—Manning (1947:78), Savile (1950:97), and Manning and Macpherson (1952:19). Low remarks (1896:324): "Met with occasionally throughout the interior. Breeds." The only specific inland localities hitherto noted seem to be several in the Lake St. John area (Godfrey and Wilk, 1948:10) and Lake Mistassini (Macoun, 1886:35; Godfrey, 1949b:19).

Erolia minutilla (Vieillot)

Least Sandpiper.

My observations on this species were few: June 20, a bird pitching down into a moss-sedge bog a mile north of Knob Lake (and not thoroughly identified); July 10, one on the rocky shore of an island at the entrance to the Iron Arm, Attikamagen Lake, and showing no nesting concern; August 8, one or two at a pond on the west side of Burnt Creek.

Previous records from the peninsula include: south coast—Merriam (1882b:239), Stearns (1883:119), Frazar (1887:33), Townsend and Bent (1910:13), and Lewis (1925:76); east coast, north to Bay of Seven Islands—Austin (1932:98) and Gross (1937:25); north coast (Fort Chimo area)—Turner (1885:247), Gabrielson and Wright (1951:134), and Bateman (1953:5); west coast (Port Harrison south to Moar Bay)—Manning (1949:190), Savile (1950:97), and Manning and Macpherson (1952:20). In the interior the species is reported about the upper Hamilton River (Low, 1896:324), at Bush Lake (Manning, 1947:78), at Lake Bienville and 25 miles north of Port Harrison (Manning, 1949:190), at Lake Aigneau and Leaf River (Eklund, 1957:73), and as a transient in the Lake St. John area (Godfrey and Wilk, 1948:11) and at Lake Albanel (Godfrey, 1949b:10). Apparently the only unequivocal nesting records are from the east coast. Mere summer occurrence does not necessarily signify breeding.

Larus glaucoides glaucoides Meyer

Iceland Gull; Tshiask kaoapishish (M.).

On the cruise down the Gulf in May and on several subsequent days at Seven Islands, I had opportunities for observing this little-known gull.

On May 21, off Rimouski, there was one of these birds, dirty white, with no black in the wings; a similar bird appeared off Baie Comeau. In the harbor at the latter port there were several (more of these than of Herring Gulls); one of them, observed to good advantage, was dirty white in general, with a grayish mantle, a broad, faint grayish subterminal band on the tail, no black in the wings, a blackish ring about the bill (as in the Ringbill), and pinkish legs. Off Franquelin there were two more. After we left Trinity Bay, a single bird, in company with a Herring Gull, followed in the steamer's wake, affording an opportunity to note their practically

equal sizes. Those seen earlier in the day had shown no disposition to follow in our wake.

The subterminal tail band, mentioned above, was verified at the U. S. National Museum in several specimens in the spotted grayish plumage, although this feature seems to be overlooked by such authorities as Ridgway (1919:590), Dwight (1925:252), and Forbush (1925, 1:66).

At Seven Islands, on May 23, I noted a distant white gull, presumably of this species. On the 29th an Iceland Gull among several Herring Gulls was coursing over the bay. On June 1 there was a distant bird alternately resting on the Gulf shore and flying opposite the Seven Islands Airport.

The paucity of records from the Ungava Peninsula suggests that the wintering Iceland Gulls generally withdraw to their Arctic breeding haunts before the summering ornithologists have arrived, and do not return before the latter have retired southward! At Pointe des Monts the bird is not common, appearing usually from February to April (Merriam, 1882b:240). Lewis (1927:60) records one at Clarke City, May 4. Audubon's report for the summer of 1833 is questioned by Townsend and Allen (1907:314); they themselves found on Great Caribou Island some wing feathers that they ascribed to this species. This is one of apparently only two records for the entire east coast, despite the fact that this must be the main highway between the summer home and the southern part of the winter range. Hantzsch (1928:146) reports the species from Hudson Strait and Ungava Bay, and Gross (1937:28) from Cape Chidley.

***Larus marinus* Linnaeus**

Great Black-backed Gull; *Opoeioeo tshiask* (M.).

Aside from a single bird at Rimouski on May 21, I saw small numbers of Blackbacks at Seven Islands and vicinity, May 22 to June 1. Here I noted only one to three birds per day, except on May 27, when there were half a dozen on the bay in a flock together with other gulls. On October 11, in the same vicinity, an adult and an immature bird were seen. On the 13th two more individuals were noted between Shelter Bay and Pentecôte.

This species is almost restricted to the southern and eastern coasts of the peninsula, although of late years it has appeared in the Fort Chimo area on Ungava Bay (Gabrielson and Wright, 1951:36) and even at Great Whale River on Hudson Bay (Savile, 1950:97). On

the south coast it breeds as far west as Pointe des Monts (Merriam, 1882b:241), but more generally from Seven Islands eastward (Frazar, 1887:17; Townsend and Bent, 1910:8; Lewis, 1922:510, 1927:61, 1931:74-76, and 1934b:99; Tener, 1951:66-67). Along the east coast breeding is general as far north as Nachvak (Austin, 1932:113; Gross, 1937:29), but Hantzsch (1928:146) has recorded several birds still farther north, at Gray Strait, in October. There seem to be no records from the interior.

***Larus argentatus smithsonianus* Coues**

American Herring Gull; Goelande (Fr.); Mesh tshiask (M.).

The Herring Gull was present on practically all the larger bodies of water visited, including the Gulf of St. Lawrence and the interior lakes. It was the only gull that I saw in the interior.

On May 21 a few Herring Gulls were at Rimouski, in the middle of the St. Lawrence, in the harbor at Baie Comeau, and northeast of Trinity Bay. On the bay and the Gulf in the vicinity of Seven Islands, May 22 to June 1, the birds were common; in addition to a few single individuals, there were flocks of approximately 10, 15, 20, 25, or 35 birds (the largest flock on June 1). They frequented the garbage dumps on the edge of the high bluff near the airport, and would commonly fly against the breeze in reconnoitering these spots.

At Knob Lake and vicinity, June 3 to 30, from one to three birds were noted on 11 different days; they were generally coursing over the lake, but now and then one would fly inland to inspect a garbage dump. A few more were seen in this vicinity, August 6 to 8, including a flock of about a dozen adults at the Burnt Creek garbage dump, August 7. Fairly fresh tracks in the snow were in evidence there on September 29.

At Attikamagen Lake and especially its Iron Arm, small numbers, representing perhaps a pair or two, were in evidence, July 1 to 21. On July 13 I found an abandoned nest on a low, rocky islet near the entrance to the Iron Arm, while two unfledged young were swimming at a distance out on the lake. A pair of Arctic Terns (also nesting on the islet) assiduously chased an adult gull away.

At Lac Aulneau a solitary bird passed several times, July 23 to 29. The species is reported as nesting on rocky islands at the neighboring Lake Wapaniskan (Arthur C. Newton). Several were noted at Mollie T. Lake, August 14 to 17, and one at Leroy Lake, August 18. From August 23 to September 21 a few were observed near the north end of Ashuanipi Lake—either along the outlet or at Mile 224

Airstrip, where they showed an interest in the garbage dump. On September 19 there was a band of one adult and four immatures at a boggy pond near the airstrip.

John Macko, who practiced his culinary art at a camp near the north end of Ashuanipi Lake, undertook to rear a couple of young from the downy stage. By the time they were captured (probably in July), they had already swum away from the nest. He fed them on raw meat and fish, including some "minnows" (probably *Couesius plumbeus*) from the lake. They were allowed their liberty for about two weeks before they eventually flew away about the middle of August. Still they returned to the camp more or less regularly several times a day, to avail themselves of the bounty of their keeper. I had hoped to film them in the act, but my visits to the camp did not happen to synchronize with theirs. On August 30, however, I noticed two full-grown birds in immature plumage out on the lake, and I prevailed upon John to bring a pan of fish down to the water's edge, to determine whether these were his pets, "Leah" and "Jack." No sooner did he appear than they swam to meet him, uttering a peculiar, low, sibilant note, *seep* (not definitely described in the literature I have examined), with somewhat lowered and forward-inclined head. While he sat on a boulder on the shore, they came up to receive the strips of fish from his hands (pl. 5). At one moment both seized the same morsel and had a little tug of war. It was wonderful to see and to film these wild, free birds in a Garden-of-Eden performance. When the pan was empty, they leisurely swam out on the lake again. Somewhat later, and at some distance, each was resting on a rock—one out in the lake, the other at the water's edge. I approached the latter within a dozen feet without disturbing it; and as I departed, it settled down in a squatting position. An effort to band the birds, at a little too late a date, did not succeed. If it had, we were apprehensive of early returns, owing to probable inability of these hand-reared gulls to discriminate between persons of good intent and those who would harm gulls.

On my return to Seven Islands, I noticed a flock of 50 resting on the bay on October 9, and about a dozen on the 11th. On the 10th there were about 100 in the air over a dump near the airport. On the following day there was a flock of 200-300 on the neighboring beach or on the water of the Gulf; till near sunset many of them appeared to be passing back and forth to and from the dump. On the return trip up the Gulf on October 13, numbers were seen at various points from Shelter Bay to Godbout.

Nesting in the interior of Ungava, as in Keewatin (*cf.* Harper, 1953:63), is evidently by isolated pairs, not in colonies. This state of affairs, together with the smaller than average number of young—apparently only two in two cases—may indicate a certain insufficiency in the available food supply.

The Herring Gull evidently breeds throughout the interior as well as on nearly all parts of the coasts of the peninsula. Some of the principal sources of distributional information are: south coast—Merriam (1882b:241), Stearns (1883:122), Frazar (1887:18), Townsend and Bent (1910:9), Lewis (1922:510, 1931:74-76, and 1934b:98-99), and Tener (1951:66-67); entire east coast—Austin (1932:116) and Gross (1937:29); entire north coast—Turner (1885:252), Payne (1887:78), Hantzsch (1928:146), Manning (1949:195), Hildebrand (1950:62), and Bateman (1953:6); west coast, south at least to Moar Bay—Manning (1947:78, 81), Savile (1950:97), and Manning and Macpherson (1952:20). The interior records include: Minto, Bush, and Scoter lakes, and 25 miles north of Port Harrison (Manning, 1947:78); Bienville and Kinglet lakes (Manning, 1949:195); Indian House Lake (Clement, 1949:372); the Lake St. John area (Godfrey and Wilk, 1948:11); Lakes Mistassini and Albanel (Godfrey, 1949b:19); the Chubb Crater area (Martin, 1955:491); and Payne Lake (Eklund, 1957:73). Low (1896:323), in reporting the Glaucous Gull as "common throughout the interior" and making no mention of the Herring Gull, obviously confused the two species.

***Larus delawarensis* Ord**
Ring-billed Gull.

Several of these gulls on the bay at Seven Islands, May 27, were distinguished from Herring Gulls by their smaller size, the ring on the bill, and (in one or two subadult birds) the comparatively narrow dusky subterminal band on the tail. On October 13 one or two birds followed in the steamer's wake between Shelter Bay and Pentecôte; and among about 10 gulls doing likewise near Godbout, perhaps the majority were definitely Ringbills. In addition to characters mentioned above, they exhibited a comparatively larger amount of black toward the ends of the primaries than does the Herring Gull. I have frequently found this a useful field mark, though it is little noticed in the literature.

The principal area inhabited by this species in the Ungava Peninsula is the North Shore of the Gulf, where it breeds in colonies in

the eastern part: Cape Whittle and near Sealnet Point (Bent, 1921: 132); Kegashka River, Fog Island, Pointe au Maurier, Aylmer Sound, and Mecatina (Lewis, 1927:61); St. Augustin (Lewis, 1931: 77); and Betchouane (Tener, 1951:66-67). On the east coast there are records from Hamilton Inlet (Cooke, 1915:43), Henley Harbour, and Port Manvers (Austin, 1932:118). A report from Fort George on James Bay (Bent, 1921:139) is discounted by Manning and Macpherson (1952:20); likewise a report by Macoun (1886:35) from Lake Mistassini, by Godfrey (1949b:20). There remain reports from Rupert House on James Bay (Ridgway, 1919:623) and from Great Whale River on Hudson Bay (Savile, 1950:97). Two records from Lake St. John, August 6 and September 3 (Godfrey and Wilk, 1948: 11), appear to be the only authentic ones from the interior.

***Larus philadelphia* (Ord)**
Bonaparte's Gull.

On October 13, off Baie Comeau, there were considerable numbers of these gulls flying about. They were quicker and handier than the bigger gulls in turning and dropping to the water, as they did frequently. The broad white stripe on the anterior, outer part of the wing and the dusky spots on the side of head (winter plumage) were conspicuous.

Bonaparte's Gull is known unequivocally only from the south coast, where it occurs mainly as a spring and fall migrant (Stearns, 1883:122) and is not known to breed. The few definite records extend from Pointe des Monts (Merriam, 1882b:241) to the Strait of Belle Isle (Bigelow, 1902:27); they include one intermediate point—the mouth of the Mingan River (Palmer, 1891:255). A detached wing was found by Godfrey (1949b:20) at an Indian village on Lake Mistassini. The birds occurring on the Gulf presumably nest west of Hudson Bay.

***Rissa tridactyla tridactyla* (Linnaeus)**
Atlantic Kittiwake.

A flock of about four birds, appearing off Baie Comeau on May 21, furnished my only glimpse of Kittiwakes.

This maritime species occurs on all coasts of the Ungava Peninsula. It breeds commonly on the south coast and summers in great numbers on the east coast, but is scarcely known to breed there or on the north and west coasts. The principal sources of distributional information are: south coast—Merriam (1882b:241) and Lewis

(1927:60); east coast—Austin (1932:121); north coast—Turner (1885:251), Hantzsch (1928:123), and Hildebrand (1950:62); west coast—Manning (1949:196). The only record from the interior appears to be for a single bird “seen over 100 miles up the Koksoak River, October 13, 1883” (Turner, 1885:251).

Sterna paradisaea Pontoppidan
Arctic Tern. Tshiask oeshish (M.).

On June 12 a tern (presumably *S. paradisaea* rather than *S. hirundo* at this latitude) passed over Knob Lake.

On July 13 I found two adult Arctic Terns, a nest, and a downy young one at a low, mossy, rocky islet near the entrance to the Iron Arm, Attikamagen Lake. This islet is about 50 yards long and 50 feet wide. The vegetation included some low willows and various herbaceous plants—*Potentilla norvegica* var. *labradorica*, *Cardamine pratensis* var. *angustifolia*, *Poa alpigena*, *P. alpina*, *Festuca vivipara*, *Calamagrostis canadensis* var. *langsдорffii*, and *Carex brunnescens*. Both adults assiduously chased a Herring Gull away from the island and swooped more or less at my companion and myself. The note of one was squeaky; of the other, the usual *tearr*. The young one uttered a husky *chraipe*.

The adult female was somewhat fat and weighed 90.6 g.; the largest egg in the ovary was about 2.5 mm. in diameter. The iris was deep olive-brown; bill, tarsus, toes, and webs coral-red; nails black. Several Mallophaga (*Saemundssonina lockleyi* Clay) were collected from this specimen and the downy young. The latter was a male (testes 1.5×1 mm.), rather fat, weighing 20 g. The color was: iris deep olive-brown; bill, tarsus, and toes skin color; distal portion of bill dusky, but egg-tooth whitish; webs a trifle paler and more yellowish than toes; nails dusky.

Two other reports of terns (presumably of this same species) were received. At Evening Lake, on July 18, 1949, Dr. F. D. Foster found a nest with two young. At Lake Mogridge, in July, 1952, Robert Leslie saw a couple of dozen birds. They had eggs on a rock in the lake.

The Arctic Tern nests on all coasts of the Ungava Peninsula. In the more southerly portions sight records are scarcely determinable, as between this species and *S. hirundo*. The principal sources of distributional information are: south coast—Couper (1868:12), Merriam (1882b:241), Stearns (1883:122), Taverner (1929:76), and Lewis (1931:74–75, 77); east coast—Austin (1932:125) and

Gross (1937:31); north coast—Turner (1885:252), Hantzsch (1928:147), Manning (1949:196), Hildebrand (1950:62), and Gabrielson and Wright (1951:136); west coast—Manning (1947:78, 81, and 1949:196), Savile (1950:97), and Manning and Macpherson (1952:21). Low's report (1896:323) of "*Sterna Forsteri*" as "common throughout interior; Hamilton River" probably applies, at least in part, to the present species. Other interior localities are: Bienville and Gregory lakes (Manning, 1949:197), the Chubb Crater area (Martin, 1955:491), and Lake Aigneau (Eklund, 1957:73).

***Zenaidura macroura carolinensis* (Linné)**

Eastern Mourning Dove.

Dr. F. D. Foster reported a Mourning Dove seen by himself, Richard Geren, and others at Knob Lake in the spring of 1952.

On the Ungava Peninsula the status of this species is little more than that of a casual visitor. The few previous records have been at Godbout (Merriam, 1882b:238, and 1883:245); Red Bay, Battle Harbour, Spotted Islands, and Sandwich Bay (Cooke, 1916:165); and Nain (Austin, 1932:144).

***Bubo virginianus heterocnemis* (Oberholser)**

Labrador Horned Owl; O sho, or O o (pronounced Oh ho) (M.).

My only experience with live Horned Owls was at Lac Aulneau. Early (about 5:25) on the cloudy morning of July 24 some hooting was heard over on the opposite (east) shore, where a bold cliff rises about 300 feet above the lake. It sounded like *hoo-hoo-hoo*, *whoo-hoo*, with perhaps a little emphasis on the fourth note. It was heard again about 4:40 P.M. Sebastien McKenzie reported finding a nest on a ledge of this cliff; it contained about three eggs about May 1, 1953.

About 5:25 P.M. on July 28 I encountered one adult and two juveniles by a little pond in open, black spruce timber just south of the camp on the west shore. They were perched for the most part on dead spruces. The adult looked almost smaller than the fluffy-feathered juveniles, still retaining some of their down. The former and one of its offspring were collected. Both were females, with ovaries 27×7 and 20×9 mm., respectively; each had a little mouse fur in its stomach; there was little fat on either, despite the local superabundance of Meadow Mice (*Microtus*) and Red-backed Mice (*Clethrionomys*); they weighed, respectively, about 3½ and 3¾ lbs. In the adult the iris was pale lemon yellow; cere and bill

black; lower side of mandible plumbeous horn-color; distal part of toes plumbeous; nails dusky, lighter basally. In the juvenile these colors were similar, except that the extreme tip of the maxilla and the distal part of the mandible were plumbeous horn-color.

On the same day, in deep dusk about 9 P.M., I noticed two Horned Owls perched atop living black spruces right in the camp area. I was attracted to them by a husky, grating, emphatic, almost shrill note—*zhweeep* or *zheep*; this note, repeated at short intervals, is apparently the food cry of juvenal birds. At distances of about 25 and 35 yards, the birds paid little attention me; the nearest seemed to be feeding on something like a mouse. As I moved nearer, they flew off a little way, but I continued to hear the *zhweeep*. An hour or so later I heard the note again, and with the aid of an electric torch I located a juvenile on a tree by the lake shore, where its yellow eyes shone in the rays of the light. On July 30, about 8:10 P.M., two juveniles were perched on spruce tops near the lake shore, uttering their *zhweeep* notes and bowing in our direction. When some one passed along a near-by path, one of the birds, and presently the other, took off in the direction of the cliff on the opposite shore. There were evidently three young in this family, but only the one adult was observed. The larger-than-average number of young may have been correlated with the exceptionally high mouse population in 1953.

I had become acquainted with the food cry of the juvenal Horned Owl at the junction of the Tazin and Taltson rivers, Mackenzie, on the evening of July 29, 1914. As nearly as I could recollect after an interval of 39 years, the note in Ungava (of *B. v. heterocnemis*) was more or less identical with that in Mackenzie (of *B. v. wapacuthu*). However, I could not characterize these notes as "blood-curdling screams," as Clarence F. Stone (*in* Bent, 1938:305) did in the case of juvenal *B. v. virginianus* in New York State. In writing of the last-mentioned subspecies, Chapman also has referred (1904:220) to "a loud, piercing scream, one of the most blood-curdling sounds I have ever heard in the woods"; although he does not indicate the age of the individual from which this cry emanated, it was evidently a juvenile. I can also recollect as far back as a certain summer night in 1900, when three boy campers at Hatchet Pond, in the wilds of Woodstock, Connecticut, were so alarmed by a truly blood-curdling scream near at hand that they spent the rest of the night in a boat in the middle of the pond. Although numerous Horned Owls were hooting about the pond, we felt convinced at the time that some

really ferocious varmint was present and much too close for comfort! It would appear that *virginianus* may exceed both *wapacuthu* and *heterocnemis* in vocal ferocity.

Cabot (1920:330-331), on hearing the above-discussed note along the St. Paul River, described it as "nearly the sharp unpleasant draw of a file, lasting one and a half to two seconds, across a saw."

My two specimens (especially the adult) differ interestingly from other specimens of *heterocnemis* in the U. S. National Museum, which were collected along the east coast, at Fort Chimo, and at The Forks, in having more than the average amount of buffy on the nape, back, upper tail-coverts, and underparts generally; in this respect they show an approach toward *B. v. virginianus*. However, there is considerable variation in the plumage of *Bubo* in the Ungava Peninsula.

At a camp at the north end of Ashuanipi Lake, on August 25, I noticed a dead Horned Owl that had been shot about four weeks previously. Another one was said to be still coming to that vicinity in the evening and to be heard hooting usually after midnight. John C. V. Bishop and James Stewart reported seeing a Horned Owl at the St. Clair camp, 7 miles south-southeast of Knob Lake, on the evening of September 23, and hearing from it the juvenal note described above. Dr. F. D. Foster noted two of the birds at Astray Lake, September 15, 1949, and Robert Leslie reported two at the north end of Manitou Lake, October, 1952.

On the south coast of the peninsula the species is recorded from Pointe des Monts (Merriam, 1882b:237), Esquimaux (=St. Paul) River (Stearns, 1883:118), Trinity Bay and Manicouagan (Comeau, 1923:305), Trout Lake (Eidmann, 1937:162), Bonne Esperance, Harrington Harbour, Johan Beetz Bay, and Moisie River (Taverner, 1942:238); on the east coast, at various points from the Strait of Belle Isle to Okak (Austin, 1932:145; Lincoln, *in* Bent, 1938:319); and on the north coast, from Fort Chimo (Turner, 1885:243) and southwest of Killinek (Hantzsch, 1929:32). On the west coast there appears to be no record. Aside from Low's general statement (1896:325) that the species is common in the interior, there are a number of specific localities: Fort Nascopie and near The Forks (Oberholser, 1904:187); Natashquan River (Townsend, 1913:178); Flour Lake and Traverspine River (Merrick, 1933:83, 315); Swamp[y Bay] River (Taverner, 1942:238); Lake St. John area (Godfrey and Wilk, 1948:11); and Lakes Mistassini and Albanel (Godfrey, 1949b:20). Taverner (1942:239, 242) indicates that it is uncertain how

far inland or westward *heterocnemis* extends, and he considers a specimen from Bradore Bay as intermediate between *subarcticus* and *heterocnemis*.

***Surnia ulula caparoch* (Müller)**

American Hawk Owl; Pepe nestshish (M.).

Richard Geren spoke of seeing a Hawk Owl about June 1, and again a week or so later, along the road between Knob Lake and the old airstrip. A. E. Moss reported seeing three together along the same road about July 18; they were so confiding that they allowed stones to be thrown at them. On August 27 at Scott Lake, a specimen was shot by a Montagnais in the employ of Gilbert Simard, who kindly preserved it and presented it to me. I did not have the good fortune to see a live bird.

On the south coast the Hawk Owl is common in winter at Pointe des Monts (Merriam, 1882b:237). On the east coast it is a common permanent resident, north to Okak (Austin, 1932:147; Lincoln *in* Bent, 1938:382). In the north there are records at Fort Chimo (Turner, 1885:243) and at Whale River (Lincoln, *in* Bent, 1938:382). Manning and Macpherson (1952:22) record a specimen from Paint Hills Islands, James Bay. In the interior the species was noted by Low (1896:325) several times on the upper Hamilton River; in winter it is frequent in the Lake St. John area (Godfrey and Wilk, 1948:12), rare at Lake Mistassini (Macoun, 1886:35), and common at Lower Seal Lake (Doutt, 1942:65). According to these data, there is no evidence of its occurrence in summer in the southern portion of the peninsula adjoining the Gulf of St. Lawrence; and its breeding range might thus appear to be restricted to the Hudsonian Life-zone. Farther to the west, however, there are a considerable number of nesting records in the Canadian Life-zone.

***Strix acclamator acclamator* Bartram**

Northern Barred Owl.

On the use of this specific name, see Harper (1942:211).

In a letter of April 30, 1954, J. L. Véronneau enclosed two photographs of a Barred Owl taken at Lake Paterson, Roberval County, Quebec. "The bird was caught alive by one of my men in the bush on a very cold morning [in the preceding January]. He brought it to my tent, but it died the next day." The specimen was forwarded to W. Earl Godfrey, of the Canadian National Museum, who has published (1957) a note on it.



Distributional records of birds in the Ungava Peninsula:

- 9.—*Capella gallinago delicata*.
 11.—*Picooides tridactylus bacatus*.
 13.—*Turdus migratorius* subspp.

- 10.—*Megaceryle alcyon alcyon*.
 12.—*Eremophila alpestris* subspp.
 14.—*Hylocichla ustulata swainsoni*.

There is no record of the species at Lakes St. John or Mistassini, but it is reported as tolerably common at Godbout (Merriam, 1882b:237). The present case may furnish one more example of a species advancing northward with the amelioration of the climate during the past 40 years or more.

Aegolius funereus richardsoni (Bonaparte)

Richardson's Boreal Owl.

"On August 8, 1954, at 8 P.M., I came face to face with a brown owl, flat-eared, 6 to 8 inches tall," at Lac Aulneau (Fred Farah, *in litt.*, August 18, 1954). Several months later, after comparing specimens and colored plates, my friend was inclined to agree that he had underestimated the size, and that his bird was probably Richardson's Owl rather than a Saw-whet Owl (*Aegolius acadicus acadicus*). There are few enough records of the former in the Ungava Peninsula, and still fewer of the latter.

Comeau (1923:423) considers Richardson's Owl a common winter resident at Godbout, where its Montagnais name is *pillip-pie tshish*. Lewis (1922:516) supplies two records (spring and winter) from Bonne Esperance, near the Strait of Belle Isle. Austin (1932:149) mentions the following localities on the east coast: Loup Bay, Black Bay, Hopedale, and Makkovik. Manning and Macpherson (1952:23) obtained a specimen at Paul Bay on the west coast. Godfrey (1949b:21) records a specimen taken in December, 1930, at Lake Mistassini.

Megaceryle alcyon alcyon (Linnaeus)

Eastern Belted Kingfisher; Tshisse melsho (M.). (Map 10.)

Single Kingfishers were seen at Rapid River, northwest of Seven Islands, on May 22, and on the bay near Seven Islands on May 28. On the shore of this bay there were two Kingfisher holes, a couple of yards apart, in a sand bluff 20-25 feet high. Another bird was seen on June 12 in spruce timber along Sucker Creek (tributary to Abel Lake); and finally one on Ashuanipi River near Mile 224 Airstrip on August 23. A. E. Boerner reported two at Gad Lake about the middle of August.

Previous records from the peninsula are mostly from along the south coast (Merriam, 1882b:236; Frazar, 1887:34; Stearns, 1890:39; Townsend and Bent, 1910:14; and Eidmann, 1937:162). On the east coast, according to Austin (1932:150), the species is an uncommon summer resident on rivers north to the Makkovik area and to

Hunt's River (west of Hopedale). In the interior it is reported by Macoun (1886:35) as common at Lake Mistassini, and by Low (1896:325) as common on Romaine River, but as not found north of the vicinity of Grand Falls, Hamilton River. It is common in the Lake St. John area (Godfrey and Wilk, 1948:13), but not common recently at Lakes Mistassini and Albanel (Godfrey, 1949b:21).

Colaptes auratus (Linnaeus) subsp.
Yellow-shafted Flicker; Pipistshish (M.).

In the vicinity of Seven Islands a Flicker was heard calling on May 24, and one was flushed from the ground on an alder-covered dune by the shore of the Gulf on May 31.

I was considerably surprised on June 4 to find one of these birds in a burnt tract on the west side of Knob Lake, on a big spruce stub with a woodpecker nest-hole in it. Two days later, with no Flicker in sight, a Tree Swallow was perching on the stub; and within a few more days the latter species was definitely occupying the nest-hole. On June 8 a Flicker was heard, and on June 28 one was seen, in another part of the burnt tract. By the latter date, at least, it should have been nesting, provided a mate had been found in this outlying part of the range of the species.

A Flicker was reported by A. E. Boerner at Gad Lake about August 1, 1953; and one by Dr. F. D. Foster at the south end of Menihek Lake on July 30, 1949.

Hitherto the Flicker has been found mainly along the south coast (Merriam, 1882b:237; Stearns, 1883:118; Townsend and Bent, 1910:14; Lewis, 1930:119). On the east coast it is a rare summer resident, north to Kaipokok Bay (Austin, 1932:151; Lincoln, *in* Bent, 1939:261). In the north, stragglers have been taken "on the mainland near Akpatok Island, Hudson Strait" (Turner, 1885:242) and at Cape Wolstenholme (Manning, 1949:202). Savile (1950:98) noted two at Great Whale River, and Manning and Macpherson (1952:23) found the species moderately common on James Bay from Moar Bay to Roggan River. Interior localities include Grand Falls (Low, 1896:326), Hunt's River (west of Hopedale) (Austin, 1932:151), the Lake St. John area (Godfrey and Wilk, 1948:13), and Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:21).

An improbable overlapping of breeding ranges in the Ungava Peninsula is implied in the statements of the distribution of *C. a. borealis* Ridgway and *C. a. luteus* Bangs in the A. O. U. *Check-list* of 1957.

Dryocopus pileatus abieticola (Bangs)

Northern Pileated Woodpecker.

On August 3 a Nova Scotian (name not ascertained) reported a "Cock o' the Woods"—"a woodpecker about the size of a Crow"—near Burnt Creek a month previously. Dr. F. D. Foster spoke of seeing one at Molson Lake, July 11, 1949, and others in the Knob Lake area.

A few records from the Pointe des Monts area (Merriam, 1882b: 236; Comeau, 1923:422) are perhaps the only previous records from the Ungava Peninsula.

Picoïdes tridactylus bacatus Bangs

American Three-toed Woodpecker. (Map 11.)

Francis McKenzie applied the Montagnais name of *Pastipasteo* to a colored plate of the Arctic Three-toed Woodpecker (*Picoïdes arcticus*), and it is fairly likely that the same name suffices for the present species. A somewhat similar-sounding Naskapi name is indicated by Austin (1932:153) for both species.

This is the only woodpecker that I found even slightly common in the interior. On June 4 I had a brief view of a female on a dead black spruce in a partly burnt tract at Knob Lake. On June 8, in the same general area, a bird perched on several different dead and burnt black spruces—in three cases at or close to the tops, at approximate heights of 40, 8, and 15 feet. Meanwhile it indulged in some fairly hefty drumming; there were about 15 strokes in a roll, possibly increasing a little in tempo toward the last. The beginnings of three consecutive rolls were 9 and 7 seconds apart. On June 17, north of Knob Lake, I heard more drumming from an unseen woodpecker, probably of this species. On July 6, near the northwest end of the Iron Arm, Attikamagen Lake, I shot an adult male on a dead white spruce in open woods of this spruce, where there was a carpet of *Cladonia alpestris*. Other associated vegetation included tamarack, willow, dwarf birch, Labrador tea, *Vaccinium uliginosum*, crowberry, *Cornus canadensis*, and moss. On that occasion I had recorded the note as *jerk*. Early on the following morning, from my tent on the Iron Arm, I heard a deliberate drumming, presumably by one of these woodpeckers. This time there seemed to be seven or eight strokes in a roll. The intervals between a number of consecutive drummings were 21, 20, 25, 10, and 22 seconds (average, 19.6 seconds). More drumming was heard on July

13. In this locality I came upon a dead, 40-foot white spruce, thoroughly denuded of its outer bark from a height of 1 to about 35 feet. No porcupine gnawings were detected, but numerous worm tracks had been exposed by the chipping off of the bark. I was much inclined to consider this the work of the present species of woodpecker.

On August 30 an adult female was obtained in spruce woods at the north end of Ashuanipi Lake; and on September 23 another female, in molt, was taken in a burnt tract of black spruce by the outlet of Knob Lake. The species shows a fairly pronounced penchant for dead spruce timber.

The adult male of July 6 had little fat and weighed 63.6 g. Its left testis was 2.5×1.5 mm., the other smaller. The maxilla was black; mandible slaty gray, darker at tip; tarsus and toes slaty. The adult female of August 30 had not much fat and weighed 46.8 g. Its ovary was 7×3.5 mm. The iris was brownish; maxilla dusky plumbeous; mandible plumbeous, tip dusky. The female of September 23 was not fat and weighed 50.6 g. Its ovary was 8×5.5 mm. The iris was bright olive-brown; maxilla pale slaty; mandible plumbeous horn-color; extreme tip of bill dusky; tarsus and toes pale slaty gray. Three Mallophaga, *Penenirmus californiensis* (Kell.), were collected from the bird of August 30, and several mites (Analgesoidea, indet.) from the bird of September 23.

The two female specimens have black crowns, with few spots (August 30) or with many (September 23); neither has any yellow on the crown. Forbush (1927:274) and others state that the female in juvenal plumage possesses such yellow, whereas the adult female does not. This is such a curious situation that one wonders if the age and the sex have invariably been determined correctly.

On October 11 several Three-toed Woodpeckers were engaged in an odd northwesterly movement on the outskirts of Seven Islands, where an open cowyard, approximately 100 yards wide, was located among spruce woods. The first one (presumably of the present species, since the other two definitely were) was seen in undulating flight across the cowyard. Presently there was another one (orange-crowned) foraging on several living black spruces on the border of the cowyard, at intervals calling a low *cherk* and after a time taking off on the same course as the first bird. A little later a third individual (black-crowned) was tapping in the same group of spruces and

working for a time on an already denuded small dead spruce, at a yard above the ground. Some of its blows were glancing; others more direct. All three of these birds had come out to the edge of the open at about the same point. It appeared as if they might have been engaged in some sort of leisurely migratory movement along a line more or less parallel with the shore of the bay, but at a distance of a quarter of a mile or so from it. The second took its course across the open in the wake of the first after an interval of probably several minutes. I did not linger long enough to ascertain whether the third individual did likewise. I had not seen one of them in proximity to another. If their aim had been to pursue a common course, keeping in at least distant contact with each other, it is difficult to see how this could have been accomplished, unless possibly by hearing each other's low calls over considerable distances.

In the summer of 1953 the species was seen a number of times at Gad Lake (A. E. Boerner).

Of the the various characters attributed by Bangs (1900:138, 142) to his *Picoïdes americanus labradorius* (type locality, Okak), only the following seem to have any appreciable significance in comparison with *bacatus* (type locality, Bangor, Maine): deeper and brighter crown color in the male; possibly more bluish cast to black of head and nape; and slightly greater wing length (averaging perhaps 4-5 mm. more in males). My adult male has a wing of 118 mm., and a male of Turner's from The Forks, 117 mm., whereas two males from the Adirondacks and New Brunswick (U. S. Nat. Mus.) and three from Lake Mistassini (Godfrey, 1949b:23) have an average of about 112 mm. and a maximum of 113 mm. Possibly the question of the validity of *labradorius* would bear a reappraisal.

On the south coast this Three-toed Woodpecker is a resident at Godbout (Comeau, 1923:433); it has also been recorded at Mata-mek River and Trout Lake (Eidmann, 1937:163). Most of the occurrences in the Ungava Peninsula have been reported along the east coast, north to Okak (Bangs, 1900:138; Ridgway, 1914:291; Austin, 1932:153; Gross, 1937:36); but few of these date from the present century. Turner obtained specimens at Fort Chimo and vicinity (Ridgway, 1914:291; Manning, 1949:202; Gabrielson and Wright, 1951:137). Several specimens were taken at Moar Bay on James Bay (Manning and Macpherson, 1952:23). In the interior the bird has been found at Panchia Lake (Manning, 1947:81) and at Lake Mistassini (Godfrey, 1949b:23).

Empidonax flaviventris (Baird and Baird)
Yellow-bellied Flycatcher.

A. E. Boerner noted this species and its distinctive song commonly at Gad Lake for a period of some three weeks, beginning about August 7, 1953.

Previous records from the peninsula are: Pointe des Monts area (Merriam, 1882b:236; Comeau, 1923:442); Cape Whittle (Frazar, 1887:34); Esquimaux Point (=Havre St. Pierre) (Townsend and Bent, 1910:15); Piashte Bay (Townsend, 1917:136); Natashquan (Townsend, 1918:51); Cove Island, 13 miles southwest of Harrington Harbour (Lewis, 1943b:99); Matamek River (Eidmann, 1937:163); Chateau Bay (Peters and Burleigh, 1944:472); Lake St. John (Godfrey and Wilk, 1948:14); and Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:23).

Eremophila alpestris alpestris (Linnaeus)
Northern Horned Lark; Naniøet (M.). (Map 12.)

A loose flock of about 30 Horned Larks frequented a cowyard in Seven Islands on May 25, and about half as many on the following day. All seemed to have the decidedly yellow throats and sides of head of *E. a. alpestris*.

In the interior I found a few summering birds on certain of the higher ridges rising above the timber-line: a pair on the summit of Ruth Lake Ridge (2,225 feet), June 6; and a flock of three near the summit of Sunny Mountain (about 2,700 feet; pl. 2), August 15. Two of these last (adult male and adult female) were collected; the third was probably a juvenile.

The next meeting with the species was on Lorraine Mountain, September 11, at a point in the Barrens about 150 feet below the summit, the altitude of which is estimated at 2,955 feet. Here I shot an adult female from a flock of about 40 birds. At this date and in these numbers, they may have been on migration, although the Barrens of the upper slopes probably constitute the breeding-grounds of a small number.

The following plants occurred on at least two of the three alpine summits just mentioned, in the environment of the Horned Larks: *Diapensia lapponica*, *Arctostaphylos alpina*, *Vaccinium uliginosum* var. *alpinum*, *Betula glandulosa*, *Empetrum nigrum*, *Phyllodoce coerulea*, *Salix* (*uva-ursi*?), *Lycopodium selago*, *Carex* spp., and *Cladonia* spp.

On October 11, at Seven Islands, in the same coveyard where Horned Larks had been observed in May, one of these birds was the objective of an unsuccessful stoop by a Northern Shrike.

The adult male and adult female of August 15 were fat, weighing 42.2 and 43.2 g., respectively. The testes of the male were 2×1.5 mm. Seeds were among the stomach contents of the female. In both, the iris was olive-brown; tarsus olive or grayish brown; toes slightly darker. In the male the bill was fuscous, except that the basal three-quarters of the mandible was horn-color; in the female the tip of the bill was dusky, and the basal half of the maxilla and three-quarters of the mandible horn-color. The adult female of September 11 was extremely fat, weighing 43.9 g. The ovary was 4×3 mm. The iris was olive-brown; bill rather dusky, with basal two-thirds of mandible yellowish horn-color; tarsus and toes dusky olive. In each of the three birds the skull was fully granulated.

The male of August 15 yielded three Mallophaga (*Philopterus* sp.). All three larks harbored one or more undetermined species of feather mites (Analgesoidea).

The Horned Lark breeds on all coasts of the peninsula (though probably no more than sporadically on the western part of the south coast) and in scattered alpine habitats of the interior. Some of the principal sources of distributional information are: south coast—Merriam (1882b:234), Frazar (1887:34), Stearns (1890?:15), Townsend and Bent (1910:15), Comeau (1923:418), and Lewis (1925:76, 84; 1930:110); east coast—Bigelow (1902:29), Austin (1932:155), Gross (1937:36), and Lincoln (*in* Bent, 1942:334); north coast—Turner (1885:241), Payne (1887:76), Hantzsch (1929:33), Manning (1949:202), Hildebrand (1950:63), Gabrielson and Wright (1951:137), and Bateman (1953:6); west coast—Manning (1947:78, 81; 1949:202), Savile (1950:98), and Manning and Macpherson (1952:23). The interior localities include the Barrens of the upper Hamilton River and about Michikamau Lake (Low, 1896:326); Mistastin River (Cabot, 1912:143); Minto, Bush, and Scoter lakes (Manning, 1947:78); Gregory Lake (Manning, 1949:203); the Chubb Crater area (Martin, 1955:491); Lakes Aigneau, Maryland, and Ptarmigan, and Gregory and Payne lakes (Eklund, 1957:73). Former nesting at Godbout (Merriam; Comeau), in connection with a merely migrant status at Havre St. Pierre in more recent years (Lewis, 1930:110), suggests a retraction of the breeding range at its southern limit.

In 1946 the subspecies *E. a. praticola* was found to have extended

its range northeastward to the Lake St. John area (Godfrey and Wilk, 1948:14).

Iridoprocne bicolor (Vieillot)
Tree Swallow; Shakoeikenesh (M.).

A Tree Swallow was over the harbor at Rimouski on May 21. At Seven Islands small numbers (up to 9 or 10) were seen almost daily, May 22 to 29; they were chiefly in or over the town itself, and some at nest-boxes put up for them by the friendly inhabitants.

The only locality in the interior where this species came under my observation was Knob Lake and vicinity, in the period from June 6 to 30. The first bird was perching on a spruce stub in a burnt tract, with a nest-hole in it; this was the identical spot where I had found a Flicker two days previously. On the 7th a pair were in evidence in this vicinity; both perched at once on the nest-stub, and one made a pass over a Bluebird as it sat about 40 feet away. On the 11th one and possibly two flew over Knob Lake, and two were at neighboring Slimy Lake (in Labrador). On the 12th one was flying from the ground to the nest-hole, probably with nesting material.

In the night of June 15-16 there was a violent rainstorm, and on the next afternoon the temperature dropped close to 40°. From one of these causes or the other, various insects may have been cast on the gravelly shore of Knob Lake, where I saw a Tree Swallow fly down repeatedly and pick at things as if they were edible. It was obviously not carrying away nesting material. At one time it lit on an upturned canoe 10 feet from me, where I heard its cheery little call—*chree, chree*. Meanwhile another bird (its mate?) occupied a more elevated perch near by. On the 18th one was sitting at the entrance to the nest-hole, and allowed me to approach within 11-12 feet without flying away. On the 27th a fresh grass stem was sticking out of the hole. On the 30th a number of birds were seen at the nest-stub and in the vicinity. Thereafter I was absent from Knob Lake until August 2, except for a few hours on July 22, and I saw no more of the Tree Swallows.

H. E. Neal spoke of seeing this species about Ashuanipi Lake in June. At Gad Lake, according to A. E. Boerner, the Tree Swallow appeared about June 15 and was common for a week or 10 days; and thereafter an occasional one was seen during the summer. Dr. F. D. Foster reported: a small number in 1949 at Ashuanipi Lake on June 19, at Evening Lake on July 16, and a nest at Molson Lake on July 10.

There are previous records from the south coast (Merriam, 1882b: 235; Palmer, 1891:265; Townsend and Bent, 1910:16; and Eidmann, 1937:164); from the east coast, north to Sandwich Bay (Austin, 1932:156) and Davis Inlet (Gabrielson and Wright, 1951:137); from the north coast in the vicinity of Fort Chimo (Turner, 1885:239); and from the James Bay coast at Poplar River (Manning and Macperson, 1952:24). Although Low (1896:327) reported the species as "common throughout the interior," the only definite localities hitherto indicated seem to be Lake Mistassini (Macoun, 1886:34; Godfrey, 1949b:25), the Lake St. John area (Godfrey and Wilk, 1948:15), and Goose Bay (Wynne-Edwards, 1957:76).

Perisoreus canadensis nigricapillus Ridgway

Labrador Jay; Whisky Jack; Oiskitsan or Oiskitsan (M.).

This freebooter, the Robin, and the White-crowned Sparrow are probably the land birds that become most familiar to travelers in the interior wilds. At Knob Lake and vicinity the Whisky Jack was in evidence on more than half the days from June 3 to 25; here it was a particular frequenter of the garbage dumps, in association with White-crowned Sparrows, Robins, Rusty Blackbirds, and Red Squirrels. It was also found among camp buildings, in burnt tracts, and in green spruce timber. It appeared for the most part as singles or as two together; in the latter case some of the groups consisted of an adult with a juvenile. In some of the birds the head and breast were stained with rusty—possibly as a result of contact with garbage.

As I was passing through spruce timber on the slopes of the "knob" south of Knob Lake on June 5, I was greeted by a soft inquiring note right overhead—*hoo-yoo?* There was a Whisky Jack, presently joined by its mate, which came within perhaps eight feet. One of them gave out a sort of *tt-tt-tt-tt*. Then they drifted silently away. On my return, one of the same or another pair called something like *tyoo, tyoo, tyoo, tyoo*. On June 8 a bird called from the top of a dead black spruce near a garbage dump: *kook, kook-kook, kook-kook, kook-kook*. Presently I heard another cry: *woot!, woot!, woot!, woot!*; and then the mellow trill that had become familiar to me in Keewatin (1953:72). This trill was also heard later (June 11, 13, and 18; July 12; September 14); on September 3 it seemed to be uttered in abbreviated form, or in several parts: *wit-wit-wit; wit-wit-wit; wit-wit-wit*. On June 13 an adult and a juvenile gave a soft *quek* note in flight. On June 25, in a family party of two adults and two sooty juveniles, birds of both ages gave a husky *kek* note,

either singly or in a series; it was somewhat reminiscent of a Rusty Blackbird's call. One of the young seemed still inclined to beg for food, but got nothing so far as I could see.

Occasionally a bird at a garbage dump would hold down a bit of food by means of a foot while pecking at the food. On June 12 one was pecking on a dead Round Whitefish (*Prosopium*) on a log bridge over Sucker Creek. On June 13, among white spruces near Slimy Lake (Labrador), I noticed an adult with a mouse in its bill; I managed to rob it of the latter, which, to my delight, proved to be the rare *Synaptomys*. It was a little fly-blown, and thus perhaps not captured by the Jay itself, unless at some earlier hour and left for a time in storage. A bird in the family party of June 25 was pecking on green needles of black spruce; perhaps it was only securing worms or other insects, and yet Audubon (1834, 2:53) reports "*leaves of fir trees*" among stomach contents.

On June 6 one or two adults did not seem to have tail-feathers of full length; and my notes of June 12 refer to postponement of collecting specimens "till the molt now in progress improves their looks." Yet Bent (1947:7) says: "Adults have a complete postnuptial molt beginning early in July." On the other hand, Forbush (1927, 2:384) indicates that the period of this molt extends from June to September. The first of the sooty-colored juveniles was noted on June 13, others on June 19 and 25, and the last one (at Lac Aulneau) on August 2.

At Attikamagen Lake the species was noted on 17 days from July 1 to 22—for the most part in our camp areas, and to a lesser extent in the spruce timber at a distance. Usually one or two were noted per day. No juveniles were recorded in this period. On several occasions, from July 6 to 12, a pair of Ruby-crowned Kinglets, which had a nest above my tent, would vociferate at the appearance of a Labrador Jay and fairly hound it from the vicinity. The bigger bird would retreat before these mites more or less silently and without protest. Presumably the Rubycrowns had reason to be apprehensive; yet I have found no more definite statement in the literature than that of Forbush (1927, 2:387): "Probably it [the Canada Jay] is fully as destructive to the eggs and young of other birds as is the Blue Jay." On July 11 a Jay was apparently picking off a spruce bud to eat. Calls in this vicinity, from unseen birds that I took to be of this species, sounded like *hoó-ah*, *hoó-ah*, and *hōöt-hōöt-hōöt*.

At Lac Aulneau one, two, or three Whisky Jacks were noted nearly every day from July 23 to August 2, being attracted, as usual,

to the camp garbage dump. A husky *kek, kek* note was recorded here as well as at Knob Lake. A slight indication of the beginning of the postjuvinal molt was evident on July 30.

A few single birds were noted at Knob Lake from August 3 to 8. At Mollie T. Lake, August 9 to 18, one or two birds were seen almost daily. On several occasions, when a Black Bear was making its more or less regular evening visit to the camp garbage pit, I noticed a couple of Whisky Jacks in fairly close attendance on it—even at rather deep dusk. Is there possibly a habitual association between these two species, as between the Wolf and the Raven? (*Cf.* Harper, 1953:76). One of the Jays, on August 12, passed by the "alpine garden" adjacent to a perpetual snowbank on Sunny Mountain, above timber-line, at an altitude of about 2,000 feet. On August 13 and 14 I heard from single birds a note sounding like *peeh; peeh-peeh-peeh*.

In and near our camp area at Leroy Lake, August 18 to 21, Whisky Jacks were also common, in numbers varying from one to four or five. One fed in a garbage bucket within 2 feet of some of the men. Among the notes heard here were: *kyooh; kyooh; kyooh*—a low *kek-kek-kek-kek*—and a throaty *wauk-wauk-wauk-wauk*.

At Mile 224 Airstrip and vicinity, August 27 to September 6 and September 18 to 21, the birds were frequently seen by ones, twos, or threes; here, again, a garbage dump was frequently visited. At Carol Lake, September 8 to 17, they appeared by the usual ones or twos. At the garbage pit, meat was evidently more appreciated than bakery products. The birds frequently flew along with legs hanging partly down. When I tossed away a fresh *Microtus*, a Whisky Jack, as if observing the act, came on the scene, eyed the mouse from a tree or bush perch, flew down to it, picked it up in its bill, and made off. Almost at once, however, while in flight, it transferred the animal to its feet, and thus continued until it was out of sight among the trees. A most humanlike whistle—*whuiy-whuiy-whuiy-whuiy*—first heard near Mile 224 Airstrip, was noticed here on several days. It sounded so exceedingly like a man whistling to a dog that, if heard in a town, it would doubtless have been taken for such. Other notes heard here were the husky *kek-kek-kek* and the mellow trill. On the near-by Lorraine Mountain, September 11, two birds had ascended to the uppermost trees, at approximately 2,700–2,750 feet.

During my final sojourn at Knob Lake and vicinity, the species was in evidence nearly every day, September 22 to October 2, for

the most part as single individuals. One bird was near timber-line on Ruth Lake Ridge. Near Seven Islands, on October 11, the last individual was seen.

The repertoire of notes uttered by this species is so seemingly endless that it might be difficult to decide, in a given case, whether the variation is a matter of geography or merely of the individual.

A juvenal female from the vicinity of Slimy Lake, June 13, was a little fat and weighed 74.9 g. Its skull was not granulated. Molt was in progress in the interscapular region. Its iris was deep olive-brown; bill plumbeous, distal third of maxilla and distal fourth of mandible fuscous; tarsus and toes black. An adult male from Knob Lake, September 24, had little fat and weighed 81.2 g. Its skull was fully granulated. The testes measured 2.5×1 mm. Its stomach contained *Vaccinium* berries. Its bill was black, the lower basal part horn-color; other bare parts were as in the juvenile. This adult is referable to *nigricapillus*. It yielded a number of feather mites (*Analgesoidea*, indet.).

Belief in bad luck resulting from discovery of a Whisky Jack's nest is wide-spread among northern Indians, from Alaska to Ungava (Turner, *in* Bendire, 1895:393), and also among the Eskimos of Ungava (Hildebrand, 1950:63). While Sebastien McKenzie disclaimed any particular knowledge of such a belief, he reported that when he was a boy, his father admonished him not to kill Whisky Jacks. Nevertheless he did so, when away by himself. I believe he reported his father also as telling him not to keep any Whisky Jack found in a trap, but to throw it away. Speck (1935:124-125) and Tanner (1947, 1:429-430) discuss the place of this species in the folklore of Labrador Indians. Among the Naskapi of the Fort Chimo area, writes Turner (1888:114), "the jay [is endowed] with qualifications rendering him the companion of man; in their personifications jays control man, or even the most savage brutes of the forest and stream."

Dr. F. D. Foster spoke of finding five nests, apparently in the Knob Lake area. Nearly every one was composed of tamarack twigs and lined with moss and rabbit fur. One nest contained eggs on March 26, 1953. He reported observing the species also in June and July, 1949, at Ashuanipi, Whiteman, Molson, and Menihék lakes.

From January to March, 1955, J. L. Véronneau (*in litt.*, June 26, 1955) found few Whisky Jacks about the headwaters of the Nemiscau River; there were two on January 20. A name for this species,

commonly heard among men in the bush, he reported as "L'Ami du Bûcheron" (Friend of the Lumberjack). The following winter, in the Lac Ochiltrie area, he reported (*in litt.*, May 14, 1956) having the companionship of Whisky Jacks every day.

The Labrador Jay occurs apparently everywhere in the peninsula as far as tree growth extends. The principal sources of distributional information are: south coast—Couper (1868:6), Merriam (1882b:236), Frazar (1887:34), Palmer (1891:263), Townsend and Bent (1910:15), and Lewis (1927:65; 1930:110); east coast, north to Okak—Bigelow (1902:29), Wheeler (1930:459), Austin (1932:157), and Lincoln (*in Bent*, 1947:12); north coast, Leaf Bay area to Fort Chimo and George River—Turner (1885:241), Hantzsch (1929:33), Manning (1949:204), Hildebrand (1950:63), Gabrielson and Wright (1951:137), and Bateman (1953:6); west coast, Great Whale River to Moar Bay—Manning (1949:204), Savile (1950:98), and Manning and Macpherson (1952:24). The species does not appear to be commonly distributed as a breeder along the south coast. Its familiarity about camps has perhaps produced more records from the interior than for any other bird. These localities include: Grand Falls and "throughout the interior" (Low, 1896:325); Windbound Lake, Beaver River, and Goose Creek (D. Wallace, 1906:168, 220, 235); Crooked River and east of Whale River (D. Wallace, 1907:63, 185); between Richmond Gulf and Ungava Bay (Macoun and Macoun, 1909:407); upper Fraser River (Prichard, 1911:44); vicinity of Mistinipi Lake (Cabot, 1912:234); Natashquan River (Townsend, 1913:178); Leaf River, 50 miles from mouth (Flaherty, 1918:122); Flour Lake (Merrick, 1933:92); Lower Seal Lake (Doutt, 1942:65); Lake St. John area (Godfrey and Wilk, 1948:15); Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:25); Clearwater, Kinglet, and Bienville lakes (Manning, 1949:204); and headwaters of Manicouagan River (Pomerleau, 1950:14). "Although the Lake Mistassini birds tend a little toward *nigricapillus*, they appear to be nearer to *canadensis*" (Godfrey, 1949b:25).

***Corvus corax principalis* Ridgway**

Northern Raven; Corbeau (Fr.); Ka katsho (M.).

A Raven, along with half a dozen Crows and numerous Herring Gulls, was frequenting the vicinity of the garbage dumps near the Seven Islands Airport on May 26. One was heard croaking several times in the same vicinity on October 11.

Charles Grace reported some Ravens hanging around camps at Mile 120 and Mile 134 (north from Seven Islands) of the Q. N. S. and L. Railway throughout the winter of 1952-53 (eight of them in the latter locality); also, during the preceding winter, there were four at Mile 17 and two at Mile 20. R. Gordon Racey spoke of seeing a couple of these birds at Mile 213, probably in the spring of 1953. (Just as these birds were reported in multiples of two, so in Keewatin in 1947 I found (1953:74-76) a considerable proportion of the Ravens in even-numbered bands. This may suggest a year-round association of pairs.) Robert Slipp saw a Raven passing eastward high over Lepage Lake about July 26, 1953. On three different days in the latter part of October, 1954, Fred Farah observed an all-black bird (evidently a Raven) on the wing at Redmond Lake, about 8 miles south-southeast of Knob Lake; it sailed about half the time, at a height well above the trees. J. L. Véronneau (*in litt.*, June 26, 1955) saw a Raven ("Corbeau") at the headwaters of the Nemiscau River on February 23, 1955.

The status of the Raven in at least the northern part of the interior of the Ungava Peninsula has probably undergone a certain change since the time of Low, who reported (1896:326) that it was a common resident throughout the interior. This is the only part of northern Canada where I have spent a period of months without sight or sound of a Raven. I am much inclined to ascribe the change to the virtual disappearance of the Labrador Barren Ground Caribou (*Rangifer caboti*) a generation ago over the greater part of this territory. The Labrador Wolf (*Canis lupus labradorius*) suffered a simultaneous (or immediately subsequent) decline, owing to the disappearance of its primary food supply. The dependence of the inland Ravens upon the remains of wolf-killed Caribou is apparently such that they were forced to abandon this territory as the two mammals disappeared. Referring to bygone years, Tanner writes (1947, 1:425): "The raven and the wolf announce the arrival of the migrating herd." In the more southerly portions of the interior, where a fair number of Woodland Caribou (*Rangifer caribou caribou*) and Wolves have survived, the Raven has likewise lingered (as reported above), but even here it may maintain itself to a considerable extent during the winter season by resorting to the garbage dumps of construction camps.

A century before Low's time, in 1792, the "Grand Corbeau" was reported at Lake St. John by Michaux (1889:86). The literature of the present century contains exceedingly few references to Ravens in

the interior. D. Wallace (1906:57) mentions their breeding at Grand Lake. There are two reasons why Mrs. Hubbard's report (1908:140) of "Crow" at Michikamats Lake may actually refer to the present species: (1) this lake is far north of the previously known range of the Crow in the peninsula; (2) the Raven is "almost universally called 'crow' in the north" of Canada (Preble, 1908:403). It is vaguely reported by Spreadborough (*in* Macoun and Macoun, 1909:414) as "found in pairs throughout the country." It was found in flocks at Indian House Lake (Prichard, 1911:101, 104) and near Mistinipi Lake (Cabot, 1912:234, 235). It is recorded as occasional at Lake St. John (Godfrey and Wilk, 1948:15) and as "surprisingly uncommon" at Lakes Mistassini and Albanel (Macoun, 1886:35; Godfrey, 1949b:26).

A better food situation enables the species to maintain itself in all maritime parts of the peninsula. As Hantzsch remarks (1929:34), the birds like "carriage, of which they always find enough on the beach. They also pick up mussels and other marine animals which remain behind at low tide." Austin (1932:167) has seen them "frequently skulking around the sea-bird rookeries, doubtless awaiting a chance to sneak in for a meal of eggs or young." The human settlements along all the coasts provide a certain amount of waste food products, of which the Ravens no doubt take advantage. The principal sources of information on coastal distribution are: south—Merriam (1882b:236), Frazar (1887:34), Stearns (1890?: 35), Townsend and Bent (1910:15), and Lewis (1928:193); east—Austin (1932:166) and Gross (1937:37); north—Turner (1885:241), Payne (1887:76), Hantzsch (1929:34), Manning (1949:204), Hildebrand (1950:66), and Bateman (1953:6); west—Manning (1949:204), Savile (1950:98), and Manning and Macpherson (1952:25).

***Corvus brachyrhynchos brachyrhynchos* Brehm**
Eastern Crow; Aasho (M.).

On my way down the St. Lawrence on May 21, I noted one or two Crows at each of the following places: Rimouski, Baie Comeau, and Godbout. At Seven Islands and vicinity small numbers were seen or heard daily, May 22 to June 1. They were noted mostly by ones or twos in spruce woods, but as many as six or seven together were attracted to the garbage dumps by the airport on May 26 and June 1. Some were found on the shore of the bay or the Gulf. The comparative trustfulness of these local birds bears out the remark

by Townsend and Allen (1907:389): "The Crow in these northern regions where no corn is grown, is very tame." Yet I noted a couple of dead ones, evidently shot wantonly.

While waiting at one of the airport dumps with a motion-picture camera on May 26, I noticed a Crow sitting on top of a dead canoe birch rising from the steep bluff below. It would point its open bill upward at an angle of 60° from the horizontal and let out a *kr-ă-ă-ă-k*. It would intersperse this note with a low, gurgling *woop* or *wlack*, its bill then turned downward close to its breast—the sound and the action somewhat suggestive of seasickness. Each attitude and note were repeated a number of times before the bird took its departure. This was doubtless some sort of nuptial behavior (*cf.* Townsend, 1923).

In this same vicinity, on October 11, I saw two flocks, of about 80 and 20 individuals. Some of the birds were accompanying numerous Herring Gulls that passed from the dump down to the shore of the Gulf.

R. Gordon Racey reported Crows at Mile 72 on the railway extending north from Seven Islands. J. L. Véronneau gave me a note on a Crow observed at two small lakes northwest of Leroy Lake, August 24 and a day or so later. He reported it as of small size (compared with the Raven, which he knows) and as giving regular wing-beats (that is, without sailing, which might have been observed in a Raven). He was accompanied by a Montagnais, Georges Michel, who is doubtless acquainted with both species.

Hitherto the Crow seems to have been recorded only in the more southerly portions of the peninsula, including Pointe des Monts (Merriam, 1882b:236), Esquimaux (=St. Paul) River (Stearns, 1883:117), "the whole coast" (but not wintering) (Frazar, 1887:34), Mingan Islands (Palmer, 1891:262; Townsend and Bent, 1910:15; Lewis, 1925:76), and Charles Point (Eidmann, 1937:164). It is common about Lake St. John (Godfrey and Wilk, 1948:15), and a few have been found at Lake Mistassini (Godfrey, 1949b:26). Austin (1932) does not include the species in the avifauna of Newfoundland Labrador.

***Parus hudsonicus hudsonicus* Forster**
Hudsonian Chickadee; Pitshi kiki (M.).

This species occurs somewhat sparingly in the spruce forests of the interior. It appears to be far less common there than *Parus atricapillus atricapillus* is, for example, in the Northeastern States. In

June I found just a single individual (on the 18th) among some sparse white spruces on rocky terrain north of Knob Lake. It announced its presence with the old familiar note of bygone Athabaska days—*tsick-a-day*. It fed along leisurely, in both living and dead spruces, and then in a willow clump, where it made a dainty little picture as it preened, frequently thrusting its bill on its throat, under its wings, and elsewhere. On June 22 H. E. Neal and Glenn Hogg reported a number of these birds on top of a ridge near Al's Lake.

Near the Iron Arm of Attikamagen Lake, July 2 to 5, I had a rare opportunity to observe a nesting pair. The nest was about eight feet up in a 10-foot dead stub in a muskeg beside a little lake a fifth of a mile northwest of the Iron Arm. It seemed to be merely a knot-hole rotted out; at least it was too small to have been excavated by any local woodpecker. On the 4th both birds visited the nest, with food in bill; and one came out, after some little interval, with a billfull of what must have been excrement. On the 5th I stationed myself, with movie camera, in the open only a dozen feet away. At first the birds protested a good deal with their usual repertoire of notes, such as *tsee-day-day*; *day-day*; *tsick-a-day*; and *tsick-a-day-day*. (In addition to such calls, I had heard on the previous day a fine *tsee-tsee* from both birds.) Within 10 minutes or so they resumed feeding the unseen young birds in the nest. Presently they ceased their notes and came silently. On their way they perched commonly in two near-by trees: a dead spruce much grown with a black lichen (*Alectoria*?) and a living tamarack. When entering the nest with food, they ducked in hurriedly, and then generally stayed within for a minute or so; occasionally, for perhaps several minutes. The egress was more leisurely, especially toward the last of my stay, when the bird might survey the surroundings for several seconds before taking off. The visits were perhaps something like five minutes apart. At one time I noticed a small worm being fetched. On July 17, at the Northwest Bay of Attikamagen Lake, I saw a single bird among black spruce and tamarack.

At Lac Aulneau I saw one or two in a muskeg on July 24, and a party of about four in mossy woods of white spruce and tamarack on August 1. About two appeared in spruce woods near Slimy Lake on August 8. At Mollie T. Lake and vicinity, among spruce woods as usual, the birds were noted by ones or twos on August 10, 13, and 15; and at Leroy Lake on August 19 there were two or three together among spruces and tamaracks.

Along Ashuanipi River below Ashuanipi Lake, there were at least four on August 23. Near Stevens Lake there was one among spruces, September 11. At Carol Lake, September 17, one of two birds came within 6 feet of me, uttering its *tseé-day-day*. On September 24 a party of three or four came drifting down the valley of Camp Brook near Knob Lake, among spruce, tamarack, willow, and dwarf birch. One of these was an immature male, with skull one-fifth granulated and testes the size of pinheads (not pigmented). The bird was molting and not very fat, and weighed 11.7 g. The iris was olive-brown; bill black; tarsus, toes, and nails plumbeous. The specimen yielded four Mallophaga (*Philoapterus* sp., probably *rutteri* (Kell.)). It was pronounced *P. h. hudsonicus* by W. Earl Godfrey, in whose hands I leave the complex problem of the taxonomy of this species in the Ungava Peninsula, where, at one time or another, no less than five different subspecies have been recognized. *P. h. ungava* was described by Rhoads (1893) from Fort Chimo, *nigricans* by Townsend (1916) from the south coast, and *labradorius* by Todd (1950) from the east coast, while Austin (1932) recognized only *littoralis* on the east coast, and *hudsonicus* is considered by Godfrey (1951) as the bird of the interior and the south and west coasts. On the other hand, the A. O. U. *Check-list* of 1957 recognizes only *littoralis* in the Ungava Peninsula.

For the year 1949 Dr. F. D. Foster reported small numbers of Hudsonian Chickadees at Ashuanipi and Whiteman lakes in June, at Molson Lake in July, and at Howell's River in September. J. L. Véronneau saw a few of these birds on January 20, 1955, at the headwaters of the Nemiscau River, and others a year later at Lac Ochiltrie.

The species (irrespective of subspecies) evidently occurs throughout the peninsula nearly or quite to the limit of trees: south coast—Merriam (1882b:234), Frazar (1887:35), Stearns (1890?:13), Townsend (1916:74), and Taverner (1929:79); east coast north to Okak—Austin (1932:167), Gross (1937:37), and Lincoln (*in* Bent, 1947:374); north coast (Fort Chimo to Kopaluk on George River)—Turner (1885:236), Rhoads (1893:328), Hantzsch (1929:57), and Hildebrand (1950:63); west coast, north to Great Whale River—Manning (1949:205), Savile (1950:98), and Manning and Macpherson (1952:25). Interior localities include: Hamilton River (Low, 1896:327); Lake Bienville (Manning, 1949:205); Lake St. John area (Godfrey and Wilk, 1948:16); and Lakes Mistassini and Albanel (Godfrey, 1949b:26).

Lucar carolinensis (Linnaeus)
Catbird.

On the use of this generic name in place of *Dumetella*, see Harper (1942:215).

I was quite surprised, on June 1, to come upon a Catbird 4 or 5 miles east of Seven Islands. It was in an alder thicket next to the sandy shore of the Gulf. Its black cap, gray body, and slightly undulating flight were unmistakable.

There seem to be no records in the National Museum of Canada from points nearer than in the Magdalen Islands and Quebec City.

Turdus migratorius migratorius Linné
Eastern Robin; Pi pitsheo (M.). (Map 13.)

The first bird to greet me with song at Seven Islands after my arrival in the pre-dawn gloaming on May 22 was a Robin. During the next dozen days I became particularly impressed with the sweetness, clearness, gentleness, and serenity that characterize the caroling of the local birds. This was a musical treat surpassing anything in my recollectable previous experience with singing Robins, from Georgia and New England to Mackenzie. The daily numbers observed here did not usually exceed two or three. Some were familiar town birds, whereas others were found in the neighboring woods or on the shore of the bay. One was at a dump in Shelter Bay, May 22.

As far as I could determine by field observation, these birds were not *nigrideus*, but *migratorius*. According to Godfrey (1949b:28), the population at Lake St. John belongs to the latter form, and specimens from La Tabatière (some 330 miles east of Seven Islands) are intermediate, though nearer to *nigrideus*. In the Ungava Peninsula *migratorius* would appear to be the form of the Canadian Life-zone, and *nigrideus* that of the Hudsonian Life-zone.

Turdus migratorius nigrideus Aldrich and Nutt
Black-backed Robin; Pi pitsheo (M.). (Map 13.)

Among passerine birds, only the White-crowned Sparrow seems to be more widely and commonly distributed than the Robin in the interior of the peninsula. At Knob Lake and vicinity the latter was noted nearly every day from June 3 to 30. At first I could detect no particular blackness on the back, but eventually I did observe such

individuals, besides collecting several specimens that are referable to *nigrideus*. Consequently I am treating all the Robins of the more northerly localities in the interior as *nigrideus*. They did not seem to possess quite the musical sweetness of the Seven Islands birds. The most preferred habitat here was the burnt tracts; others, in approximate order of preference, were: garbage dumps, living spruces, pond margins, camp areas, and muskegs. One was seen flying over the Barrens of Ruth Lake Ridge and alighting on a tree at the border. At the dumps its common associates were White-crowned Sparrows, Rusty Blackbirds, Labrador Jays, and Red Squirrels. Here it would come fairly readily within a dozen feet or so of an observer, but elsewhere it was much shyer.

With two exceptions, the nests mentioned in the present paragraph were situated in dead spruces; all but one were in burnt tracts. Nesting was under way by June 4, when a bird flew off a fresh structure placed against the trunk at a height of 15 feet. (In the preceding night the temperature had fallen to about 25° F.) Two days later one flew from a nest placed on top of a 15-foot stub. On the 7th a pair were engaged in an unsuccessful attempt at building on a slight projection in a nearly vertical rock face. Far more of the materials (small twigs and dead *Cladonia*) had fallen down than remained on the projection. By the 18th the attempt had been abandoned. On the 10th a Robin was flushed from a nest placed about 14 feet up, against the trunk of an 18-foot living white spruce at the edge of a burnt tract; it then contained two hatchlings and an egg. On the 21st an old bird was brooding here, and on the 24th the nest was empty. On June 21 three young were seen in the nest discovered on the 6th; and another nest was found similarly placed on top of a 16-foot stub. A third nest observed on this date contained a hatchling and two eggs; it was in a cavity in a dead spruce at a point about a yard above the ground, where the higher part of the trunk had broken and come to rest at an angle. In each of three of the foregoing cases the number of eggs or young was three; the same state of affairs obtains in Newfoundland (Peters and Burleigh, 1951:317). The lack of concealment of the nests on bare stubs in the burnt tracts may signify slightness of pressure on the part of winged predators, either diurnal or nocturnal.

In protesting my presence near their nests, the Robins would call *cheep-cheep*; *kuk-kuk-kuk-kuk-kuk* (doubtless with some variation in the number of each kind of note). They would generally punctu-

ate these calls with a quick uplifting and spreading of the tail and a slight flirt of the wings.

At the Iron Arm and the Northwest Bay of Attikamagen Lake, July 5 to 22, Robins were seen fairly frequently, but generally only one per day. On the 17th there were several, and on the 19th three, in a flock. They appeared for the most part in our camp areas (slight clearings among spruce timber); a few were in muskegs or on the rocky lake shore. The last songs were heard on July 15 and 18. The early closing of the song season is evidently an indication of the rearing of just one brood per year in these high latitudes.

At Lac Aulneau, July 23 to August 2, Robins were seen daily, but chiefly as single individuals. Most of them were in the camp area, but one or two in a muskeg. When I was at Knob Lake, August 4 to 7, the Robins and the Whitecrowns as well seemed definitely less common in the burnt tracts than they had been in June.

A few Robins were noted, by ones or twos, at Mollie T. Lake, August 12 to 18. At Leroy Lake, August 21, a loose flock of about 15 (the first aggregation of any appreciable size noted in the summer) alighted on white spruces and tamaracks. The birds seemed, both here and at Carol Lake in September, to have a distinct penchant for pausing on the tiptops of spruces. One of them was pursued vigorously through the air by a small bird (perhaps a Ruby-crowned Kinglet). Strangely enough, no Robins were found in the area about the north end of Ashuanipi Lake during my stay from August 22 to September 8 and from September 18 to 21. At Carol Lake, September 9 to 11, I saw a number roving through the spruce timber; there was one loose flock of about 15, and another of 8 or 10. In my final days at Knob Lake, September 22 to October 2, two flocks, of 10 or 12 each, were found in burnt tracts, and a flock of half a dozen in black spruce timber. Two birds together were in the Barrens on the summit of Dolly Ridge, September 30. From August 21 on, nearly all the Robins appeared in flocks.

A male and a female in juvenal plumage were collected on June 24 and 29 at Knob Lake, in the vicinity of, and probably derived from, a nest that had contained two hatchlings and an egg on June 10. Thus they may have been approximately 14 and 19 days old. They had little fat and weighed 67 and 68.2 g., respectively. The testes of the male were 2×1 mm.; the right one was pigmented, the left half-pigmented. The iris of this specimen was olive; bill horn-color, tip pale yellowish; commissure pale cream; tarsus and toes pale olive-gray. A mallophagan, *Bruelia* sp., probably *cedrorum*

(Piag.), was removed from it. Its stomach contents included several green worms and one red berry of *Vaccinium vitis-idaea*. The stomach of the juvenal female included a number of whitish worms about half an inch long. (Evidently there are no earthworms in this area.)

A female in postjuvenal plumage was shot near Knob Lake on September 22. It was fat and weighed 90.3 g. Its skull was one-sixth granulated. The bill was fuscous, mandible light brownish basally; tarsus and toes fuscous. Two Mallophaga (*Philoapterus* sp.) were collected from it. This specimen, while perhaps not thoroughly typical of *nigrideus*, is referable to that subspecies. Its crown is mostly veiled with olive; there are broad white tips to the tawny breast and belly feathers.

In 1949 Dr. F. D. Foster found a nest with three eggs at Ashuanipi Lake, June 21; a nest at Whiteman Lake, June 28; three nests at Molson Lake, July (one with four young, July 10); several birds at Evening Lake, July; and some migrants at Astray Lake, September 18 and 21.

The Robin, as a species, breeds throughout the peninsula to the limit of trees and a little beyond. According to present indications, *T. m. nigrideus* replaces *T. m. migratorius* somewhere east of Seven Islands and north of Lake St. John. Among the principal recorders of distribution are: south coast—Merriam (1882b:234), Comeau (1891:317), Frazar (1887:37), Palmer (1891:265), and Townsend and Bent (1910:18); east coast, north to Cape Chidley—Austin (1932:169), Gross (1937:37), and Peters and Burleigh (1944:472); north coast (Fort Chimo, south of Leaf Bay, and George River Post)—Turner (1885:235), Manning (1949:205), Hildebrand (1950:63), Gabrielson and Wright (1951:138), and Bateman (1953:6); west coast, north to Great Whale River—Manning (1949:205), Savile (1950:98), and Manning and Macpherson (1952:25). Interior localities include: "throughout" (Low, 1896:328); Crooked River (D. Wallace, 1907:63); Bush, Minto, Bienville, and Kinglet lakes (Manning, 1949:205); Indian House Lake (Clement, 1949:372); Lake St. John area (Godfrey and Wilk, 1948:17); Lakes Mistassini and Albanel (Godfrey, 1949b:28); Gregory Lake (Eklund, 1957:74); and Goose Bay (Wynne-Edwards, 1957:77). A lone Robin observed in July, 1950, at Langland Falls by Dr. Bertram H. Harper (*in litt.*, September 28, 1955) represents a considerable northward extension of known geographical range along the west coast.

Hylocichla guttata faxoni Bangs and Penard
Eastern Hermit Thrush.

Near Seven Islands, on May 25, a Hermit Thrush was pouring out its strains from the tiptop of a 45-foot black spruce, as it faced in the direction where the sun had already set.

On September 16 I shot one of two Hermit Thrushes that were moving about together in upland woods of white spruce at Carol Lake. It was a male, with postjuvinal molt not completed, skull one-quarter granulated, and testes 2×1 mm. (black). It was rather fat and weighed 35.5 g. Its iris was deep olive-brown; bill fuscous; mandibular tomium yellowish; tarsus and toes pale grayish brown. Its stomach contained berries (apparently *Vaccinium uliginosum*). Since I found no other birds of this species in the interior, I concluded that this locality might be near the northern limit of its range.

It appears, however, that the zonal distribution of the Hermit Thrush in the Ungava Peninsula presents quite a different picture from that between Hudson Bay and Alaska. In the latter region none of the records is north of the Canadian Life-zone, with one dubious exception—a listing by Baird (1864:15) of a specimen from Peel River, near the mouth of the Mackenzie (*cf.* Preble, 1902:130, and 1908:494; Miss Cooke, *in* Bent, 1949:127). In 1914 I found the species at Hill Island and Soulier lakes, Mackenzie, along the boundary between the Canadian and Hudsonian life-zones. In the Ungava Peninsula, on the other hand, there are a number of records along the extreme upper or outer limits of the Hudsonian Life-zone, at the very border of the Arctic Life-zone: for example, at Chateau and Loup bays and Mary Harbour (Austin, 1932:170) and Eagle River on the east coast (Miss Orr, 1948:224), and at Moar Bay and perhaps Stromness Island on James Bay (Manning and Macpherson, 1952:26). Localities on the south coast include Pointe des Monts (Merriam, 1882b:234), Mingan Islands area (Lewis, 1925:76), and Natashquan (Miss Cooke, *in* Bent, 1949:127). In the interior there are records from 80 miles up the Natashquan River (Townsend, 1913:178), the Lake St. John area (Godfrey and Wilk, 1948:17), Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:28), and Goose Bay (Wynne-Edwards, 1957:76).

Is perhaps the intrusion of the Hermit Thrush into the Hudsonian Life-zone a comparatively recent development, which future investigation may show to be actually taking place in western Canada as well as in the east?

Hylocihla ustulata swainsoni (Tschudi)

Olive-backed Thrush. (Map 14.)

My experience with the Oliveback in the interior was limited to the vicinity of the Iron Arm on the west side of Attikamagen Lake, where the growth of black and white spruces appears to be somewhat taller and denser than in adjacent areas (trees up to 60-70 feet high and probably 20 or more inches in diameter). In this "closed forest" (*cf.* Hare, 1950:622; Dansereau, 1955:85) single birds were heard singing nearly every day from July 1 to 13. They were so excessively shy that I never succeeded in getting a view of a singer. One that sounded to special advantage, at a distance of 25 yards or less, seemed to sing *aw-reely-areely; areely; areeliyee*. There were also additions or modifications, almost beyond putting into script. Its characteristic call-note, *pik*, was also uttered repeatedly. Only once did I have a brief and unsatisfactory glimpse of a bird that came near my tent.

On October 11 a thrush darted across a road in the woods near the Gulf shore several miles east of Seven Islands. In a few moments I heard it utter the *pik* note mentioned above, thereby proclaiming its identity as an Oliveback, although the date is later than the normal time of departure (*cf.* Miss Cooke, *in* Bent, 1949:173; Ball, 1952:70-71).

In western Canada there is comparatively little overlap in the breeding ranges of this species and the Gray-cheeked Thrush (*cf.* Preble, 1908:491, 492). The former extends through the Canadian Life-zone and for a certain distance, here and there, into the Hudsonian Life-zone, while the latter is apparently limited to the Hudsonian Life-zone. In the Ungava Peninsula, however, the Oliveback, like the Hermit Thrush, pushes beyond the limits that one might expect on the basis of experience in western Canada. In other words, it has been found almost on the borders of the Arctic Life-zone, at Petty Harbour, Caplin Bay, and Paradise River on the east coast (Austin, 1933:171) and at Rupert House (Miss Cooke, *in* Bent, 1949:171) and Fort George and Poplar River on the west coast (Manning and Macpherson, 1952:26). Other records are from Pointe des Monts (Merriam, 1882b:234); upper Hamilton River (Low, 1896:327); about 80 miles up the Natashquan River (Townsend, 1913:178); Mingan Islands area (Lewis, 1925:77); Lake St. John, Moisie Bay, Natashquan, and Pointe au Maurier (Godfrey and Wilk, 1948:18); Lakes Mistassini and Albanel (Godfrey, 1949b:29);

and Goose Bay (Wynne-Edwards, 1957:76). It is scarcely surprising that the range should extend farther north (to approximately latitude 54°56' on Lake Attikamagen) in the comparatively mild interior than on the colder coasts.

Hylocichla minima minima (Lafresnaye)

Gray-cheeked Thrush; ?Nipin pineshis or

?Notshi pemokoeshis (M.). (Map 15.)

The first of these Montagnais names was supplied by Sebastian McKenzie after viewing a fresh specimen at Lac Aulneau; the second, by his son Francis, on the basis of the colored plate in Peters and Burleigh's *Birds of Newfoundland*. I do not know whether, on the one hand, these are variant names of a single species, or whether, on the other hand, my informants meant to designate two different species of *Hylocichla*. The first name, according to Père Beaudet, means "summer bird."

The Graycheek was found in small numbers in most of the localities investigated, from Knob Lake northward; it was likely present also in the Ashuanipi Lake area, although I failed to detect it there.

At Knob Lake and vicinity one or two birds per day were noted on 14 days between June 7 and 29. The first date may have represented one of the first arrivals, for I had been in the locality since June 3. The birds were found chiefly in the burnt tracts; occasionally in a muskeg. The common call-note, *wheéur* or *peéur*, was heard nearly throughout the season, up to August 1; it would be accompanied by a slight dip of the tail. Occasionally this note was given twice in rapid succession. There was also a less loud note, *peé*. On the morning of June 14 a Graycheek was moving back and forth along a dead limb in a mass of upturned roots in a burnt tract along Camp Brook; it kept its mouth open a good part of the time. This was apparently some minor part of courtship behavior. (Dilger (1956:319, 322, fig. 4) has described the "gaping" as a form of hostile display.) Presently another Graycheek appeared near by. On the next day one of two birds in this locality had grassy nesting material in its bill.

On July 10 Henry Romer reported finding a nest on the ridge west of the northwest end of the Iron Arm of Attikamagen Lake. It was on the ground approximately at timber-line, at an altitude of 1,950–2,000 feet. The sitting bird allowed him to make a close approach. The three eggs were blue, with brown spots toward one end, and could scarcely have belonged to any other species.



Distributional records of birds in the Ungava Peninsula:

- 15.—*Hylocichla minima* subsp.
 17.—*Anthus rubescens rubescens*.
 19.—*Seiurus noveboracensis*.

- 16.—*Regulus calendula calendula*.
 18.—*Lanius excubitor borealis*.
 20.—*Wilsonia pusilla pusilla*.

At the Northwest Bay of Attikamagen Lake I found one or two Graycheeks on each of several days, July 17 to 21. Some were in spruce and balsam woods, probably less dense and tall than those on the Iron Arm, no more than 4 miles distant and at almost the same altitude (1,545 feet), where I had found Olivebacks but no Graycheeks; others were in muskegs. It is difficult to account for the apparently exclusive occurrence of one species here, and of the other on the Iron Arm, except by the difference in the density and height of the timber. Here I was inclined to think that *peéur* and *wheéur* were perhaps not merely different renderings on my part of the identical call-note, but perhaps slightly different notes of the bird itself.

At Lac Aulneau I heard a Graycheek calling on July 30, and I shot one of two birds on August 1 in mossy woods of white spruce, tamarack, dwarf birch, willow, and Labrador tea, at an approximate altitude of 600 feet. It was an adult female, with skull fully granulated and ovary reduced (6×2.5 mm.). It was slightly fat and weighed 34.8 g. Its iris was olive; bill fuscous, yellowish horn-color on basal half of mandible; tarsus grayish brown; toes a little darker.

The last bird of the season was seen at Leroy Lake, August 19. For some reason, I had not heard the song in the entire summer.

Along the east coast of the peninsula the Graycheek breeds in spruce forests from Nain in the north to the vicinity of Battle Harbour and Cape Charles (Austin, 1932:171; G. J. Wallace, 1939:219, 242). From the last-mentioned area westward as far as Kegashka and Natashquan, along the Strait of Belle Isle and the North Shore of the Gulf, this subspecies is replaced at the breeding season by Bicknell's Thrush (*H. m. bicknelli* Ridgway) (G. J. Wallace, 1939:242). It is evidently through inadvertence that the A. O. U. *Checklist* of 1957 includes the North Shore, from Natashquan eastward, in the breeding ranges of both *minima* and *bicknelli*. The dearth of records of either subspecies from the more westerly parts of the North Shore beyond Esquimaux Point (=Havre St. Pierre) or Mingan (*cf.* Townsend and Bent, 1910:18), and from all the more southerly inland areas, from Lakes St. John and Mistassini eastward, suggests that perhaps neither breeds in these areas, which are evidently part of the Canadian Life-zone. In the north the Graycheek breeds at Fort Chimo (Turner, 1885:235) and at Kopaluk on George River (Hildebrand, 1950:64). The one place of record on the west coast seems to be Great Whale River (Miss Cooke, *in* Bent, 1949:197). Manning (1949:206) found this bird at Kinglet Lake, but

elsewhere in the remote interior it seems hitherto to have escaped observation.

Dilger's map (1956:315) of the breeding range of the Graycheek is decidedly at variance with previously published information as to its northern limits.

***Sialia sialis sialis* (Linnaeus)**
Eastern Bluebird.

On June 7 a Bluebird appeared in the burnt tract on the west side of Knob Lake, where it rested on dead spruces and on the ground. It was probably only a casual visitor, for the species seems to have been recorded previously at only four places in the entire peninsula, all in the southern part: Godbout, July, 1880, and June 3, 1887 (Merriam, 1882b:234; Comeau, 1923:418); Tadousac, July 4, 1908 (Dwight, 1909:83); Lake St. John, June 16, 1946 (Godfrey and Wilk, 1948:20); and Havre St. Pierre (Miss Cooke, *in* Bent, 1949:258).

***Regulus calendula calendula* (Linné)**

Eastern Ruby-crowned Kinglet; Tshatshao nish (M.). (Map 16.)

This sprite is one of the most characteristic birds of the interior spruce forests, where its vocal activity brings it to attention perhaps more frequently than any other species.

On May 25 a male gave an amazing display of its expanded crown, while evidently singing, in black spruce timber near Seven Islands. At Knob Lake and vicinity a few solitary birds were seen or heard on June 4, 5, and 20, and two more were noted on the 13th over the boundary in Labrador, near Slimy Lake. Most or all of them were in song. On the 5th a male was flitting about in the spruce timber on the slope of the "knob" near Knob Lake; it regaled me time after time with its wonderful volume of song, full of trilling notes, *tyoo-tyoo-tyoo*, toward the beginning and ending with a series of apparently disyllabic notes.

In the green spruce timber about Attikamagen Lake the reiterated *tyoo-tyoo* note of the Rubycrown was almost the dominant sound. The birds were noted daily on the Iron Arm, July 2 to 14, and on every day but one at Northwest Bay, July 15 to 22. After my tent was pitched at the northwestern end of the Iron Arm on the 2nd, I noticed two birds going to a nest almost directly above it. It was situated a little more than halfway up in a 35-foot white spruce, at a point a foot from the end of a 4-foot, downward sloping branch. It

was in a dense cluster of twigs and needles, where there was slight chance of its ever having been noticed except for the visits of the old birds. My recollection is that the twigs supporting the nest were pendant beneath the main branch. The old birds made quite a fuss on the 5th when I climbed up to the nest through the scraggly, lichen-covered limbs. Most of the sound and display was by the male, as it erected its ruby crown and energetically flirited its wings and tail. It was constantly giving its throaty call: *tyoo-tyoo, tyoo-tyoo-tyoo-tyoo*. Sometimes it changed to a rapid, chattering trill: *cha-cha-cha-cha-cha-cha, etc.*, such as is occasionally heard on migration. The male provided the more animated picture—head and body inclined forward and tail somewhat elevated. The female, though far less demonstrative, was more courageous, approaching me within some 5 feet—twice as near as the male. It was uttering a note, too, but a far lower one, that could be determined almost as well by the swelling of the throat as by the slight sound—a sort of *tyip*. Its wing and tail actions were much less pronounced than the male's.

The nest was globular, perhaps 6 inches in diameter, with opening at the top, and apparently composed in part of moss. It was so fully lined with feathers (perhaps of Spruce Grouse) that they fairly covered up the nestlings. Of these, there were about five, as nearly as I could determine by feeling with my fingers in the deep cavity. Contour feathers were just sprouting on the crown of one of them. One or the other of the parents was still visiting the nest on July 12; but thereafter I noticed no further sign of activity about it.

The Rubycrowns were much given to hurling anathema and defiance at any Whisky Jack happening into the vicinity of the nest. They exhibited this behavior on several occasions from July 5 to 13. I am not sure that always the same Rubycrowns were involved, for some of the occurrences were at a distance of 50 yards from the nest. By advancing on the intruders and vociferating at them with *tyoo, tyoo, tyoo, tyoo*, the feathered Davids induced the Goliaths to move on. These notes closely resembled those at the beginning of the song. The last song was recorded on July 12, and the last call-note on July 20 (or possibly the 29th). On one occasion a Rubycrown was attracted to a spot where a Red Squirrel was making a fuss.

On several days, from July 2 to 11, I was much puzzled by a more or less distant song, consisting of about three repetitions of the musical note *pleé-too*, possibly preceded by other notes that did not carry so well. On the 12th I finally determined that the author was a

Rubycrown. This (final) part of the song sounded so differently from my recollection of that part of the song of the species in Alberta, that I had not recognized it at first. (On the lower Athabaska River, on May 15, 1920, I had represented this part as *cher-a-weé*, *cher-a-weé*, etc.) Saunders comments on a difference in the songs of eastern and western birds, while Bent and Lewis describe songs in southern Labrador and near Quebec City (Bent, 1949:408).

At the Northwest Bay as well as on the Iron Arm, I found the Rubycrown a persistent follower of Labrador Jays through the green timber, up to July 20. Whenever I heard its protesting *tyoo, tyoo*, I was apt to become aware thereby of the presence of the other species. Here it was found in tamarack and balsam growth as well as among spruces.

At Lac Aulneau several were seen, July 24 and August 1. In a brief stay at Knob Lake on August 8 I saw one at Goldeneye Pond and two or three in spruce woods near Slimy Lake.

At Mollie T. Lake the species was found in slightly larger numbers than previously, on most of the days from August 12 to 18. It was probably attracted to this area by enormous numbers of some green larvae (probably of a saw-fly, *Pristiphora erichsonii*) that were virtually defoliating the tamaracks. Several birds were found also at Leroy Lake, August 19 to 21, part of them in willow thickets bordering the outlet.

In the vicinity of Mile 224 Airstrip one was noted among willows on the bank of Ashuanipi River, August 23, and several among white spruces and dwarf birches, August 25 and 26. At Carol Lake and vicinity, September 9 to 17, the Rubycrown was one of the commoner birds in the green timber, several being found among spruces and two among tamaracks. Finally, on October 11, two or three appeared in company at a dump near the Seven Islands Airport.

All told, there are few birds of Ungava so dynamic as this tiniest one among them. Unfortunately for us, it passes the most intense season of the year remote from human sight or ken in the boreal spruce forests. Alert, with a full measure of parental devotion, and not only possessed of remarkable vocal talent but not at all shy about demonstrating it, the Rubycrown is a feathered exponent of the strenuous life. Actual nesting seems to have escaped the notice of nearly all ornithologists who have explored the peninsula.

A. E. Boerner reported the species as not common at Gad Lake till the end of summer.

Two female nestlings from Attikamagen Lake, July 8, were somewhat fat, and each weighed 7.3 g. Colors of their bare parts were: iris olive; maxilla pale olive-brown, its tomium and the mandible skin-color; tarsus and toes skin-color (the latter in one case marked faintly with dusky). A molting juvenal male from Mollie T. Lake, August 14, had little fat and weighed 7.3 g. Its skull was not granulated, and its testes were the size of pinheads. Its iris was olive-brown; bill fuscous, mandible horn-color on basal half; tarsus fuscous; toes yellowish-brown, beneath dull orange.

There are records along the south coast, from Pointe des Monts eastward, by Couper (1868:14), Merriam (1882b:234), Stearns (1890?:12), Townsend and Bent (1910:18), Lewis (1925:76), and F. H. Allen and Miss Cooke (*in* Bent, 1949:408, 410); and along the east coast, north to Makkovik, by Austin (1932:174) and Miss Orr (1948:224). A report by Weiz (1866:267) from Okak is dubious. The species has evidently extended its range northward to Ungava Bay since Turner's time, being found at George River Post and Kopaluk by Hildebrand (1950:64) and at Fort Chimo by Gabrielson and Wright (1951:138). On the west coast it has been recorded at Fort George, Great Whale River, and Richmond Gulf (Macoun and Macoun, 1909:729; Savile, 1950:98), and as common along James Bay, from Moar Bay to Paul Bay (Manning and Macpherson, 1952:26). Interior localities include: Hamilton River between Grand Falls and "Sandy" (=Sandgirt) Lake (Low, 1896:327); Natashquan River (Townsend, 1913:179); Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:29); Lake St. John area (Godfrey and Wilk, 1948:21); Bienville and Kinglet lakes (Manning, 1949:206); and Goose Bay (Wynne-Edwards, 1957:77).

Anthus rubescens rubescens (Tunstall)

American Pipit. (Map 17.)

On the use of this specific name, see Harper (1953:84). This species was observed at Seven Islands and vicinity, May 23 to June 1, when it was probably still on migration. It was found for the most part in yards and vacant lots in the town, and to some extent at garbage dumps, where the countless blowflies doubtless attracted it. On May 27 about two Pipits and two Savannah Sparrows were in company at a bayside meadow. Many of the birds were solitary, while others occurred in loose flocks numbering up to half a dozen individuals or more. On June 1 there were about 30 among grassy sand dunes on the shore of the Gulf several miles east of the town.

Some individuals displayed pugnacity toward others, driving them away from a feeding-ground. The common flight-note, *cheet-cheet-cheet-cheet*, was heard occasionally, but no vocal expression at all was recorded after May 28. Birds with buffy underparts seemed to be more heavily streaked, while those with these parts inclining toward cinnamon seemed less heavily streaked (*cf.* Harper, 1953: 83; Sutton and Parmelee, 1955: 90-91).

A bird that I had under observation for an hour or so on May 27, at a garbage pit in the town, kept tilting or pumping its tail most of the time, ceasing only for a little spell. While in action it gave the tilts at an average of probably a little more than one per second—say 3,600 tilts per hour, or 50,000 in a 14-hour day! Consider the fly-based energy required for all that motion! On the very next day, however, at the same spot, one sat quietly for several minutes, apparently without tail-pumping.

On my occasional ascents in June and July to the Barrens on the summits of ridges about Knob and Attikamagen lakes and Lac Aulneau, I found no Pipits. In the vicinity of the perpetual snowbank on Sunny Mountain, on August 10 and 12, I came upon a few Pipits, in groups of two, three, or half a dozen, in addition to a single bird. The extensive Barrens on the upper slopes of this mountain (pl. 2) (summit *circa* 2,700 feet) and of the adjacent and slightly higher Geren's Mountain (2,821 feet) constitute, in all probability, a breeding haunt of the Pipit. These lonely heights, with a prospect over the undulating hills of Ungava to a blue horizon perhaps 60-80 miles distant, seem a fitting environment for such a hardy bird of the Arctic. It adds a welcome bit of life and movement to the "alpine garden" that flourishes about the base of the snowbank. Bearing itself the flowery name of *Anthus*, it harmonizes with the beds of *Cassiope*, *Cerastium*, *Dryas*, *Oxyria*, *Phylodoce*, and other alpine beauties, as it trips daintily among them. In the enjoyment of such a prospect, a naturalist, for his part, can scarcely fail to experience with more than common intensity "that mysterious uplifting gladness" of which W. H. Hudson writes.

On September 11 I secured an immature female from a flock of about six in the Barrens on the upper slopes of Lorraine Mountain (*circa* 2,955 feet). This flock was possibly a family party on its breeding territory; yet it might easily have been on migration at this date. The specimen was fat and weighed 21.5 g. The skull was one-quarter to one-half granulated, and the ovary was small. The bill was dusky, with basal half of mandible brownish; tarsus olive; toes

dark olive. The specimen yielded some feather mites (Analgesoidea, indet.) from the wings and one mallophagan (*Menacanthus* sp.).

On September 30 I noted at least one and perhaps three Pipits along roads in the vicinity of Knob Lake.

Along the south coast the species has been known as a summer resident and breeder somewhere east of Natashquan (J. J. Audubon, in M. R. Audubon, 1897:384), about Pointe des Monts (Merriam, 1882b:234; Comeau, 1923:418), and at Cape Whittle (Frazar, 1887:35), and as a migrant but perhaps not as a breeder at Esquimaux Point (=Havre St. Pierre), Betchewun, and Natashquan (Townsend and Bent, 1910:17) and in the Mingan Islands area (Lewis, 1925:76, and 1930:111), although Stearns (1890?:19) reported it as breeding from Mingan to Red Bay. It summers along the entire east coast (Austin, 1932:174; Gross, 1937:37; Miss Orr, 1948:224). It is common along the entire coast of Ungava Bay and Hudson Strait (Turner, 1885:236; Hantzsch, 1929:56; Manning, 1949:207; Hildebrand, 1950:64; Bateman, 1953:6), and also along the west coast of the peninsula, south to the vicinity of Moar Bay (Manning, 1947:78, and 1949:207; Savile, 1950:98; Manning and Macpherson, 1952:26). Interior localities on record include: "all the high barren hills between Richmond gulf and Ungava bay" (Macoun and Macoun, 1909:684); Gregory and McGill lakes (Manning, 1949:207); Lake Albanel (as a fall migrant) (Godfrey, 1949b:30); the Chubb Crater area (Martin, 1955:491); Lakes Ptarmigan and Maryland and Povungnituk River (Eklund, 1957:74). If the early reports (by Merriam and Comeau) of breeding at Pointe des Monts are authentic, there would appear to have been a subsequent retraction of the southern limits of the breeding range under the influence of generally rising temperatures.

***Lanius excubitor borealis* Vieillot**

Northern Shrike; Atsensketsan or Mishoi (M.). (Map 18.)

My principal acquaintance with this species was gained at Lac Aulneau. The first one noted was a brownish juvenal bird that appeared near the base of a cliff on the east side of the lake, July 25. Early on the morning of the 27th I found one on the alder-grown sandy point adjacent to camp on the west side of the lake, and presently three more, all forming a loose company. In addition to a *kay* or *jay* note (perhaps a little suggestive of a Catbird's mew), I heard from them more commonly a grating or rattling *churr*. They perched on a big brush-pile, on the tips of fairly tall spruces, and on the up-

turned roots of a fallen tree. They did quite a bit of hovering over the alders (obviously on the lookout for prey) and also over the upturned roots mentioned above, where a Red Squirrel moved or sat rather nonchalantly in their presence. They were always interested in the actions of several scurrying squirrels, but made no attempt to attack. Presently one of the birds appeared with something furry in its bill; this booty, which I caused it to drop by waving my arms, proved to be the fresh hind quarters of an immature Meadow Mouse (*Microtus*). The birds were rather confiding; they did not much mind my approaching to within 25-30 feet. After a time they drifted away through the camp area.

On July 30 one or two Shrikes appeared in the same place, hovering over the alders or perching on the upturned roots. On the following three days single birds behaved similarly in the same place. On August 1, for example, a juvenile flew into a tamarack, dropped to the ground among alders without apparently securing anything, and then perched on a brush-pile within a dozen feet of me. It had a rather pitiless, predatory aspect, peering here and there, turning its head and perhaps bobbing it, and anon tilting its tail—altogether giving the impression of a highly alert and agile bird, whose living depended upon its possession of such qualities. Its breast was barred only in patches, as if molt were in progress.

After writing the foregoing words on the Shrike's predatory aspect, I found that the revered Cabot (1912:143) had had a somewhat different view: "To the eye the bird offers no suggestion of being predatory, much less of being revoltingly cruel." Yet he admits that "it plays with its victims like a cat, picking them gradually away."

On the morning of August 2 I watched for some minutes an encounter between a Shrike (apparently a juvenile) and a Labrador Jay on the sandy point. I was attracted there by a *churr* note, doubtless uttered by the Shrike. It was rather vigorously and threateningly pursuing the other, without actually coming to grips with it. The Jay would consistently retreat, though obviously not particularly concerned for itself. They dodged in and out among the alder bushes, and also among the limbs of a dead spruce lying horizontally beside the alder thicket. There was more or less of an outcry, now and then, from one or the other, including a *kek* (probably from the Jay) and possibly a *jay* (from the Shrike). I wondered if the Whisky Jack had aroused the animosity of the other by seeking or stealing its food caches. At one time the Shrike came and

perched on a brush-pile 12-15 feet from me and indulged in a little song.

At Lac Aulneau Sebastien McKenzie gave me a Montagnais (or possibly Naskapi?) name, *Atsensketsan*, for this species. It may be a sort of nickname, meaning something like "devil," but not so strong a term; perhaps "bad bugger," as he expressed it, would be a closer meaning. "Indians [presumably Naskapi] give the unpleasant name of Torturer to the shrike" (Cabot, 1912:143). *Mishoi*, the name supplied by Francis McKenzie, may be a more formal or a more generalized designation.

An unsexed juvenile, secured on July 31, had little fat and weighed 59.1 g. Its skull was one-tenth granulated. Its stomach contained the remains of a bird. Its iris was deep olive; bill blackish, mandible horn-color basally; tarsus, toes, and nails slaty black. Fourteen Mallophaga (*Philopterus* sp.) were obtained from it.

Solitary Shrikes were seen on five occasions at Mollie T. Lake and vicinity, August 10, 12, and 15. The first one was singing on top of a living spruce near the lake. The remainder were above timber-line on Sunny Mountain, at altitudes of perhaps 2,000-2,550 feet. The highest one perched on a rock and in an alder thicket, and hovered above me in an inquisitive manner.

During a snow blizzard on September 26 I caught sight of a Shrike apparently in pursuit of a sparrow-sized bird among some sparse trees and shrubs beside the seaplane base at Knob Lake. By the time I had secured my field-glasses, only the Shrike and a Whisky Jack were in sight. The latter seemed to be taking cover among the lowermost limbs of a bare tree, with the Shrike apparently menacing it from above and yet making no serious attack. Soon the Shrike moved on to a tree a rod or two away, and the Whisky Jack gradually ascended the first tree toward the top. Evidently it had no real fear, but preferred to avoid an encounter.

On October 11, at Seven Islands, a Shrike, starting from the tip of a spruce, made a fast, direct stoop at a Horned Lark about 250 feet distant in a cowyard, but missed. Thereupon it flew up to another spruce top, and kept tilting its tail, but soon disappeared. One was also seen on this day at the town dump.

Records of this species from the Ungava Peninsula are not numerous. On the south coast it occurs at Pointe des Monts in winter (Merriam, 1882b:235; Comeau, 1923:419). A sight record of a pair in summer at Trout Lake (Eidmann, 1937:164) requires confirmation before acceptance, for the species is scarcely to be expected at

that season in the Canadian Life-zone. On the east coast it is an uncommon summer resident from Okak to Sandwich Bay (Austin, 1932:176; Miss Cooke, *in* Bent, 1950:126). On the north coast it is known from Fort Chimo and from south of Leaf Bay (Turner, 1885:238; Gabrielson and Wright, 1951:138; Bateman, 1953:6), and on the west coast from Great Whale River (winter) (Eifrig, 1906:313). Interior records are: Hamilton River (Low, 1896:327); Lake Melville (Norton, 1901:156); (Lower) Seal Lake (Macoun and Macoun, 1909:592); Mistastin River (Cabot, 1912:143); and Indian House Lake (Miss Cooke, *in* Bent, 1950:126). Possibly the breeding range in the interior covers only the upper or outer portions of the Hudsonian Life-zone.

***Sturnus vulgaris vulgaris* Linnaeus**
Starling.

Two Starlings were seen at Rimouski, May 21. At Seven Islands and vicinity the species is apparently well established. It was seen mostly by ones or twos, daily from May 25 to June 1, but a flock of four passed on May 25, and half a dozen (mostly in one flock) were at one of the airport dumps, June 1. Some of the birds in the town were perching on wires, and two were at a nest-box on May 25.

The first record for the peninsula was at Betchewun in 1917 (Lewis, 1922:513). The species began nesting at Natashquan in 1933, and continued in 1934 (Lewis, 1934a, and 1935:313). It appeared at Lake St. John between 1926 and 1931, and has become common there (Godfrey and Wilk, 1948:21). Bleakney (1953:44), besides mentioning its occurrence at Seven Islands, presents a rather astonishing record of a pair with at least five young ones at Fort McKenzie in the summer of 1952.

***Dendroica magnolia* (Wilson)**
Magnolia Warbler.

A singing male was observed on May 30 in coniferous woods near the shore of the Gulf several miles east of Seven Islands.

The species is known along the south coast at Pointe des Monts (Merriam, 1882b:234), at Esquimaux Point (=Havre St. Pierre) and elsewhere (Townsend and Bent, 1910:17), in the Mingan Islands area (Lewis, 1925:77), and at Natashquan (Lincoln, *in* Bent, 1953:209). It is common in the Lake St. John area (Godfrey

and Wilk, 1948:23) and at Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:31).

Dendroica tigrina (Gmelin)

Cape May Warbler.

A male was noted at a garbage dump near the Seven Islands Airport, May 26.

The species has been found in the Lake St. John area, August 16 to September 4, 1946 (Godfrey and Wilk, 1948:23).

Dendroica coronata coronata (Linné)

Eastern Myrtle Warbler; Ka oskassikoneokopit (M.).

A Myrtle Warbler was seen among shore boulders at Baie Comeau, May 21, and one or more at a dump at Shelter Bay, May 22. At Seven Islands and vicinity the species was common, May 25 to June 2, in such varied habitats as spruce and jack pine woods, garbage dumps, and a cowyard, and on a wire, a fence, and the ground in the town. There were dozens at one of the airport dumps, May 26, darting after the swarming blowflies and evidently making a catch now and then. While such a number might be thus attracted at the same time to a favorable feeding-ground, they seemed to form a loose aggregation of individuals rather than a definite flock. Some single birds were noticed. One became the victim of a cage trap operated at a garbage pit in the town by a boy thus obtaining food for a cat. Some of the Myrtles were chasing each other pugnaciously on May 28.

Next to the Northern Water-thrush, this appeared to be the commonest warbler of the interior. A few birds (mostly single) were found at Knob Lake and vicinity on five days between June 4 and 21, in burnt tracts, green spruce woods, and a muskeg. At the Iron Arm and the Northwest Bay of Attikamagen Lake, July 4 to 22, mostly single birds were observed among spruces, interspersed to some extent with balsams and tamaracks. At Lac Aulneau, July 24 to 30, there were several in spruce woods or muskegs.

About 9 P.M. on August 13 a Myrtle flew into the mess-tent at Mollie T. Lake. Its middle tail-feathers were half-grown. A juvenile was noted here in a dwarf birch thicket, August 18, and two of like age near Leroy Lake, August 19 and 21, among willows and spruces bordering a creek. At Mile 224 Airstrip and vicinity several single birds were seen, August 25 and 26 and September 1 and 19, among

black and white spruces, tamaracks, and dwarf birches, and at a garbage dump. There were a number of others among spruces and tamaracks at Carol Lake and vicinity, September 9 to 12. On October 11 there was a loose company of six to ten at a dump near Seven Islands Airport.

I recorded the song only on May 26, and a call-note only on May 26 and July 20 (on the latter date sounding like *tsip*).

An adult female, taken in a mouse trap at Seven Islands, May 25, had little fat and weighed 10.05 g. Its ovary measured 7×3.5 mm. Its bill, tarsus, and toes were black. A molting juvenal female from the north end of Ashuanipi Lake, August 25, was somewhat fat and weighed 12.7 g. Its skull was not granulated. Its iris was deep olive-brown; bill, tarsus, and toes fuscous.

A. E. Boerner reported the species as common during the season at Gad Lake.

Along the south coast there are records from Pointe des Monts (Merriam, 1882b:234), Cape Whittle (Frazar, 1887:35), 10 miles up St. Paul's River (Stearns, 1890?:17), Esquimaux Point (=Havre St. Pierre) and elsewhere (Townsend and Allen, 1910:17), and Mingan Islands area and Harrington (Lewis, 1925:76, 77); and along the east coast north to Angutausugevik (Austin, 1932:178). The species seems to have reached the north coast since Turner's time, being found by Hildebrand (1950:64) at George River Post and Kopaluk. On Hudson Bay it is known from Great Whale River (Savile, 1950:99), and on James Bay it is common from Moar Bay to Paul Bay (Manning and MacPherson, 1952:28). Interior records are: Grand Falls (Low, 1896:327); Bienville and Kinglet lakes (Manning, 1949:209); Lakes Mistassini and Albanel (Godfrey, 1949b:32); and Lake St. John area (Godfrey and Wilk, 1948:23).

***Dendroica virens virens* (Gmelin)**

Black-throated Green Warbler.

A. E. Boerner reported seeing this species once (about August 10, 1953) at Gad Lake.

Previous records from the peninsula are: Esquimaux Point (=Havre St. Pierre) (Frazar, 1887:35); Mingan Islands (Palmer, 1891:265); near Piashte Bay River, Natashquan, and Esquimaux Island (Townsend and Bent, 1910:17); Battle Harbour (Cooke, 1916:167); off the east coast, at about latitude 53° N. (Shortt and Peters, 1942:347); Lake St. John (Godfrey and Wilk, 1948:23); and Lake Mistassini (Godfrey, 1949b:32).

Dendroica striata (Forster)

Blackpoll Warbler; Tossi pimansh (M.).

A Blackpoll was seen on June 1 in spruce woods several miles east of Seven Islands. At Knob Lake and vicinity the species was noted on 13 days between June 3 and 29. Nearly all were single males; a female was recorded on June 19. They frequented particularly the burnt tracts; to a less extent, green spruce timber, muskegs, a willow swamp, tamaracks, and a garbage dump. One on June 12 was on the Labrador side of the boundary, near Abel Lake. The song, though heard only from June 14 to 22, probably would have been detected at other times by ears sharper than mine; it seemed to consist of four to seven or eight notes (*tsit-tsit, etc.*), dying away at the end.

A male at the Iron Arm of Attikamagen Lake, July 4, was the last Blackpoll observed for more than seven weeks. I did not find it in the more northerly localities (Lac Aulneau and Mollie T. and Leroy lakes), although it should have been present. Single birds were noted at Mile 224 Airstrip among white spruces and dwarf birches, August 26, and at Carol Lake among spruces and tamaracks, September 9.

An adult male from Abel Lake, June 12, had little fat and weighed 11.25 g. Its testes measured 6.5×5 mm. Its iris was olive-brown; maxilla black; tomium and mandible yellowish horn-color; tarsus and toes olive-yellow. It yielded some feather mites (*Analgesoidea*, indet.).

The species should be expected to breed practically throughout the Ungava Peninsula north to the tree-limit. The principal sources of distributional information are: south coast—Merriam (1882b: 234), Stearns (1890?:17), Townsend and Bent (1910:17), and Lewis (1925:77); east coast, north to Port Manvers—Palmer (1891:265), Bigelow (1902:30), Townsend and Allen (1907:408), Austin (1932: 179), and Miss Orr (1948:224); north coast (Fort Chimo and George River Post)—Turner (1885:237), Hildebrand (1950:64), Gabrielson and Wright (1951:138), and Bateman (1953:6); west coast, north apparently to Richmond Gulf—Manning (1949:209), Savile (1950:99), and Manning and Macpherson (1952:28). Interior localities are: between Richmond Gulf and Fort Chimo (Macoun and Macoun, 1909:645); upper Hamilton River (Low, 1896:327); Minto and Bush lakes (Manning, 1947:78); Bienville and Kinglet lakes (Manning, 1949:209); Indian House Lake (Lincoln, *in* Bent, 1953:405); Lakes Mistassini and Albanel (Macoun, 1886:34; God-

frey, 1949b:33); Lake St. John area (Godfrey and Wilk, 1948:24); Lake Aigneau (Eklund, 1957:74); and Goose Bay (Wynne-Edwards, 1957:77).

***Dendroica palmarum hypochrysea* Ridgway**
Yellow Palm Warbler.

On May 28 an adult female was collected a mile north of Seven Islands in an open growth of spruces, where the dry ground was covered with lichens. It was a little fat and weighed 10.6 g. The ovary measured 7×4.5 mm. The maxilla was dusky; its tomium and the mandible yellowish horn-color; the latter brownish toward tip; tarsus and toes dusky olive-brown.

Another Yellow Palm Warbler was observed in a willow swamp along Camp Brook at Knob Lake, June 7.

Along the south coast there are records from Godbout (Comeau, 1923:433); Natashquan and Esquimaux Point (=Havre St. Pierre) (Townsend and Bent, 1910:17); Piashte Bay (Townsend, 1917:136); and Mingan and Betchewun (Lewis, 1925:85). In the interior the occurrence of this warbler in the Lake St. John area has been established by Godfrey and Wilk (1948:24), at Lake Mistassini by Godfrey (1949b:33), and at Goose Bay by Wynne-Edwards (1957:77). Two specimens from James Bay (Fort George and 20 miles south of Long Point) are referred to the Western Palm Warbler (*D. p. palmarum* (Gmelin)) by Manning and Macpherson (1952:28).

In the Ungava Peninsula this species, like several other birds, evidently penetrates more generally into the Hudsonian Life-zone than it does in western Canada. According to the *A. O. U. Checklist* (1931:293), its breeding range is the Canadian Life-zone.

***Seiurus noveboracensis* (Gmelin)**
Northern Water-thrush. (Map 19.)

This appeared to be one of the commoner birds in nearly all the interior localities investigated, from Ashuanipi Lake north to Lac Aulneau. It was found most frequently along the banks of streams, and about half as frequently along the shores of lakes. There were also a few occurrences in muskegs (generally bordering lakes) and at garbage dumps. In the early part of the summer it would generally draw attention to itself by its voice, for it is one of the most persistent of the local singers. The song was heard from June 6 to July 18; the call-note, *tsit*, from June 10 to July 24. Thereafter, until the last one was seen on August 28, the birds appeared to be silent.

The *tsit* of the Water-thrush and of the White-crowned Sparrow impressed me as being practically indistinguishable. On three different occasions in early June I jotted down the song with slight variations: *swee-swee-swee-sweechee*, *chut-chut-chut-chut*; *swee-swee-swee-chee-chee-chut-chut-chut-chut*; and *swee-swee-swee-swee*, *choo-choo-choo-choo*. Singing stations varied from the ground (or close to it) to living and dead spruces (in one case at the very top of a dead spruce 40-45 feet in height).

At Knob Lake and vicinity solitary birds were noted on 20 days from June 4 to 29. One foraging along the edge of Camp Brook occasionally quickened its nimble steps into a run. Two of the localities (Slimy and Sucker creeks) were just beyond the provincial boundary in Labrador.

At the Iron Arm of Attikamagen Lake one or two birds were seen or heard daily, July 2 to 8. On the first date one of a pair was carrying food in its bill, and one came within 10 feet of me. The call-notes were less numerous than the tail-tiltings with which they were punctuated. There was some flirting of the wings along with the tilting of the tail. The next day, in this locality, probably one of the same birds, on being flushed from its nest in a bank or tussock in a muskeg, ran through shallow water in a crouching attitude. There were four nestlings, without contour feathers (which, however, began to show on the 4th). Down projected above them in a protective position (*cf.* Harper, 1953:98-99, for a function of such down in Harris' Sparrow). On July 5 the nest was empty—presumably robbed by some mammalian or avian predator. On this day a Water-thrush was attracted to our camp area by the calls with which a Ruby-crowned Kinglet was protesting the approach of a Labrador Jay near its nest. At the Northwest Bay of Attikamagen Lake two or three birds were heard singing, July 17 and 18.

At Lac Aulneau on July 24 a bird was calling in a muskeg. On the 25th a juvenile in an alder thicket on a sandy point allowed me within 8 feet without showing any nervousness unless such was implied in the tilting of its tail.

Single birds were seen at Mollie T. Lake, August 10 and 17, and at Leroy Lake, August 18 to 21. In the vicinity of Mile 224 Airstrip there were two birds at the edge of Ashuanipi River, August 25, and single birds at the garbage dump, August 27 and 28. A. E. Boerner reported seeing the species at Gad Lake a couple of times toward the end of June.

This bird probably ranges over nearly all the wooded portions of

the Ungava Peninsula. Among the sources of distributional information are: for the south coast—Merriam (1882b:234), Townsend and Bent (1910:17), and Lewis (1925:77); for the east coast, north to Angutausugevik—Austin (1932:180) and Lincoln (*in* Bent, 1953:485); for the west coast (Great Whale River to Fort George and Poplar River)—Savile (1950:99) and Manning and Macpherson (1952:28). There are records in the interior at Grand Falls (Low, 1886:327); inland from Richmond Gulf and on the Koksoak River above Fort Chimo (Macoun and Macoun, 1909:659); at Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:34); and in the Lake St. John area (Godfrey and Wilk, 1948:24). The birds of the last two areas are referred by Godfrey to Grinnell's Water-thrush (*S. n. notabilis* Ridgway), and those of the west coast by Manning (1949:210) and Manning and Macpherson (1952:28) to the same subspecies. However, Eaton (1957), after careful study, concludes that geographical variation in this species is too slight to be worthy of nomenclatural recognition.

***Wilsonia pusilla pusilla* (Wilson)**

Wilson's Warbler. (Map 20.)

In the Knob Lake area this warbler was observed on eight days from June 9 to 29, chiefly as solitary males. A female was noted in company with a male on the 18th, and perhaps again on the 29th. The principal habitat was a willow swamp along Camp Brook, including some living and dead white spruces within or near the swamp. There were also single occurrences in a spruce muskeg by Camp Pond, among dead spruces and living alders in a burnt tract by Goldeneye Pond, and among white spruces near Slimy Lake. The song was heard on several days from June 15 to 24. On the first date a bird was singing from the tops of 6-foot willows or from black and white spruces and a tamarack. The song consisted generally of four or five rapid notes, dying away a little at the end: *chee-chee-chee-chee*; but occasionally of as many as seven to nine. In the latter case it would end in a trilling *chree* or *ch-r-r-e-e-e*. On the following day one was again singing in the willow swamp; also in a 10-foot white spruce. It pointed up its bill at an angle of 60° from the horizontal, and vibrated its throat, wings, and tail with the energy of its singing. It was a very persistent vocalist, and a rather confiding bird. Adorned with its black skullcap, and peering about inquisitively, it had a somewhat comical aspect. On another occasion one sang in the tops of alders.

On the west side of Mile 224 Airstrip, in an open growth of dwarf birch and young white spruce, one or two small warblers, probably females or young of this species, were seen on August 25. They were quite yellowish below, and somewhat so above. These characters do not fit any other warbler I found in the interior.

There are previous records along the south coast: Pointe des Monts (Merriam, 1882b:235), Esquimaux (=St. Paul) River (Stearns, 1890?:22), Esquimaux Point (=Havre St. Pierre) and elsewhere (Townsend and Bent, 1910:17), Mingan Islands area (Lewis, 1925:77), and Mutton Bay (Lincoln, *in* Bent, 1953:635); and along the east coast north to Cartwright (Austin, 1932:181; Miss Orr, 1948:224). Hildebrand's record (1950:64) from the George River Post is far to the northward of any other in the peninsula. On the west coast the species has been found at Great Whale River (Savile, 1950:99) and at Fort George, Stromness Island, and Paul Bay (Manning and Macpherson, 1952:28). The only previously reported interior localities seem to be Grand Falls (Low, 1896:327), Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:35), and the Lake St. John area (Godfrey and Wilk, 1948:25). Apparently this is one of the species that have been pushing northward in the peninsula of late years.

***Passer domesticus domesticus* (Linnaeus)**

House Sparrow; Tshi moalo (M.).

The House Sparrow was met with only in the town of Seven Islands, May 23 to 28 and October 10 and 11. It appeared mainly by ones and twos, but there was a flock of four females in a thicket on May 27. A female was at a nest-box, May 25, and a male was going into a crevice in a hotel, May 27.

Comeau (1923:432) shot one at Godbout in 1884, but saw only one more in the 39 years following. Weaver (1939:95) quotes Harrison F. Lewis as not having observed this species in 18 years of traveling along the North Shore of the Gulf from Baie Comeau to Blanc Sablon. It is common throughout the settled areas about Lake St. John (Godfrey and Wilk, 1948:26).

***Euphagus carolinus carolinus* (Müller)**

Rusty Blackbird; Tshetshe kenoi (M.). (Map 21.)

The "n" in the Montagnais name is apparently pronounced as an "l." This name is likely onomatopoeic.

In the generally sparse avian population of the interior, the Rusty Blackbird is one of the more familiar species. This is partly the result of its predilection for the garbage dumps at the larger camps. In the Knob Lake area it was observed on 11 days from June 3 to 29. In the first week about half a dozen (males and females) were generally in evidence, either singly or as a group, at one of the garbage dumps; thereafter (with nesting under way), no more than two or three. The birds were so drawn to this spot that they showed themselves much more confiding here than elsewhere. A couple allowed me to film them without any concealment at a distance of no more than 12-14 feet, although they expressed some uneasiness with a frequent *kek*. Each note was generally punctuated with a quick uplifting of the tail and a flirt of the wings. Sometimes the flirt of the wings was given without an accompanying note. Their companions at the unflinching feast were White-crowned Sparrows, Robins, Labrador Jays, Red Squirrels, and a few mice. One of the Rusties displayed a trick of hovering for some appreciable moments over the spot on the dump where it contemplated alighting. The pleasantly squeaking and gurgling song was heard on June 3, 6, and 11. At Burnt Creek, on June 3, a Rusty was fluttering its wings beside a pond in a manner suggesting possible amatory display.

On June 9 I flushed a bird from its nest of five eggs in a 12-foot black spruce leaning outward from the muskeggy edge of Camp Pond (pl. 5). The nest was close to the trunk and about 2 feet above the water. Both old birds called excitedly and incessantly: *kek, kek, kek*, or possibly *chek, chek, chek, etc.* In flushing from the nest two days later, the female flew out low over the water, and circled back to land. The male then came, and both maintained a vocal protest. The female was the bolder, coming closer than the other. During this excitement the male sang a couple of times—a sort of liquid *kee-da-lee*. By June 27 the nest was empty. It was built exteriorly of tamarack twigs, with some *Cladonia* and a dead leaf of *Rubus chamaemorus* on the bottom. The middle part was of peat or decomposing sphagnum; and the lining consisted of the stems of some fine sedge, along with a few cranberry stems and leaves.

On July 19 a flock of about four passed the Northwest Bay of Attikamagen Lake, and on August 3 a number were seen at Knob Lake and vicinity. On August 19, 20, and 21 single birds in winter plumage were noted on the borders of the outlet of Leroy Lake.



FIG. 1.—An extensive moss-sedge bog a mile north of Knob Lake, Quebec; a breeding haunt of Wilson's Snipe. In the bog proper: *Myrica gale*, *Andromeda glaucophylla*, *Vaccinium angustifolium* var. *laevifolium*, *Carex* spp., *Cladonia mitis*, *Sphagnum* sp. On the isolated mounds: *Picea mariana*, *Larix laricina*, *Betula glandulosa*, *Ledum groenlandicum*, *Andromeda glaucophylla*, *Empetrum nigrum*, *Rubus chamaemorus*, *Gaultheria hispidula*, *Cladonia alpestris*, *Sphagnum fuscum*. June 20, 1953.



FIG. 2.—A garbage and refuse dump near Mile 224 Airstrip; a favored haunt of White-crowned Sparrows, Slate-colored Juncos, Rusty Blackbirds, Labrador Jays, and Northern Water-thrushes (listed in order of abundance) and of Red Squirrels. September 3, 1953.



FIG. 1.—Captive young Ungava Canada Geese from Leaf Lake, Quebec. Knob Lake, Quebec. September 27, 1953.



FIG. 2.—A male Hudsonian Spruce Grouse in display posture. A female partly revealed in the background. Carol Lake, Labrador. September 18, 1953. (From a 16-mm. motion picture.)

On August 28 and 29 and September 19 and 20 flocks, numbering from three to half a dozen or a dozen birds, frequented the garbage dump and a neighboring bog and muskeg near Mile 224 Airstrip. At this bog, on August 29, an adult Greater Yellowlegs, in evident anxiety for a couple of juvenal birds, kept vociferating at me, swooping overhead, and perching in the tops of near-by small trees. This commotion attracted a band of about a dozen Rusty Blackbirds. They hovered and perched near it, and several even followed it rather closely as it flew about—thus almost mobbing it. If an anthropomorphic interpretation were allowable, their behavior might almost be considered a protest at the Yellowlegs' disturbance of the peace!

On September 19 I heard a little gurgling singing as well as the call-note from a flock of half a dozen in a black spruce muskeg near the airstrip. An immature male and an immature female were collected from the flock. They were extremely fat and weighed, respectively, 77.2 and 71.8 g. The skulls were one-quarter and one-tenth granulated; testes $2 \times .75$ mm.; ovary small. In each the iris was pale yellow, with a brownish tinge; bill blackish, mandible slightly paler basally; tarsus and toes black. Both yielded numerous feather mites (*Analgesoidea*, indet.); there was also a mallophagan (*Myrsidea incerta* (Kell.)) on the female. Both are paler than average fall specimens; the tips of most feathers on throat, breast, and flanks are near Cinnamon-Buff, while some of those on the belly are much lighter, near Pale Pinkish Cinnamon. Their respective measurements are rather large: wing, 115, 117; tail, 86, 92.5 mm.

Throughout the season the birds were scarcely ever found far from a lakeside, a streamside, or a bog.

Among the previous records are: south coast—Godbout, spring and fall (Comeau, 1923:431); Esquimaux Point (=Havre St. Pierre), spring (Frazar, 1887:34); St. Augustin to L'Anse au Loup (Stearns, 1890?:34); Mingan, spring (Townsend and Bent, 1910:15); east coast, north to Webb's Bay—Austin, 1932:182); north coast—Fort Chimo (Turner, 1885:241); west coast—Great Whale River (Savile, 1950:99); Poplar River, Paul Bay, and Fort George (Manning and Macpherson, 1952:29; interior—"throughout" (Low, 1896:326); in marshes from Richmond Gulf to Ungava Bay (Macoun and Macoun, 1909:438); Lake Bienville (Manning, 1949:210); Lake Mistassini (Macoun, 1886:34; Godfrey, 1949b:35). The species evidently does not remain on the more westerly parts of the North Shore of the Gulf at the breeding season.

Quiscalus quiscula versicolor Vieillot
Bronzed Grackle.

This species was met with only at Seven Islands—a flock of about seven males and females on May 25, two together on the 27th, and several on the 28th. All were in the town, at such places as a yard, a fence, *etc.*

Occurrences of the Bronzed Grackle in the Ungava Peninsula are mostly limited to the North Shore of the Gulf: Pointe des Monts (Merriam, 1882b:236); Betchewun (Lewis, 1922:513); Esquimaux Point (=Havre St. Pierre) (Lewis, 1925:84); Seven Islands and The Bluff Harbour (Lewis, 1927:65); and Natashquan (Taverner, 1929:79). The species is also known in the interior in the Lake St. John area (Godfrey and Wilk, 1948:26). In its northward extension it has not been recorded beyond the limits of the Canadian Life-zone.

Molothrus ater ater (Boddaert)
Eastern Cowbird.

Several single male Cowbirds were noted in Seven Islands on May 25, 27, and 28. On the 27th there were also two males in proximity for some minutes. One was on a wire, in an ordinary pose; the other on top of a pole, where it kept its head pointed toward the zenith for much of the time—a well-known sort of “attitudinizing.”

Comeau (1923:434) reports two Cowbirds shot in the vicinity of Pointe des Monts, July 7, 1884. Taverner (1929:78) found several at Matamek in June and August, 1928. Godfrey (1949b:36) considers Macoun's report (1886:34) from Lake Mistassini erroneous. Savile (1950:99) reports two individuals at Great Whale River in June.

Hesperiphona vespertina vespertina (Cooper)
Eastern Evening Grosbeak.

On February 23, 1955, on the headwaters of the Nemiscau River, J. L. Véronneau (*in litt.*, June 26, 1955) saw two good-sized yellow birds, with black and white on the wings. After referring to a colored plate in a bird manual, he had no doubt that they were Evening Grosbeaks.

Godfrey and Wilk (1948:27), in reporting winter occurrences at Lake St. John, remark: “This seems to be the northernmost record of this species east of the Great Lakes.” The headwaters of the Nemiscau River are more than 200 miles still farther north.

***Carpodacus purpureus purpureus* (Gmelin)**
Eastern Purple Finch.

A few Purple Finches were met with, by ones or twos, in the vicinity of Seven Islands, May 27, 28, and 30. Some, including an apparent pair on the 28th, were among alders along the shore of the bay north of the town. The rest (on May 30) were in woods near the shore of the Gulf several miles to the east, where they were perching in tree-tops—canoe birch and spruces; these were males except for two females or immature males, which were together in one spruce. One of the males was singing. A male not yet in full plumage, taken on May 27, had a little fat and weighed 24.8 g. Its testes measured 8×6 mm. Its iris was olive-brown; maxilla olive-brownish; mandible horn-color; tarsus and toes light brownish.

Along the North Shore of the Gulf there are records from Pointe des Monts (Merriam, 1882b:235), Mingan (Townsend and Bent, 1910:15; Lewis, 1923:136), and Clarke City, Seven Islands, Esquimaux Point (=Havre St. Pierre), Betchewun, and Natashquan (Lewis, 1925:76, 84, and 1927:65). On the east coast the species has been found at Cartwright (Miss Orr, 1948:224). The scarcity of records from definite localities east of Pointe des Monts until 1923 suggests a comparatively recent extension of range along the North Shore. The species occurs in the Lake St. John area (Godfrey and Wilk, 1948:27) and at Lakes Mistassini and Albanel (Godfrey, 1949b:36).

***Pinicola enucleator eschatosus* Oberholser**
Newfoundland Pine Grosbeak; Kamishistit mishoi (M.). (Map 22.)

The Pine Grosbeak did not appear to be at all common in the interior, and my experience with it was limited. A rosy-colored bird, almost certainly of this species, was glimpsed in flight through spruce woods between Lejeune and Abel lakes, June 12. On June 21 a male preened for several minutes on the lower branches of a dead spruce at Goldeneye Pond, and presently a female appeared in near-by dead and living black spruces. An adult female was taken on July 20 in a black spruce and tamarack muskeg near the Northwest Bay of Attikamagen Lake. A bird, probably of this species, was seen flying through woods near Lac Aulneau on July 25. On August 10 a bird in female or immature plumage was uttering some low notes as it perched on a dead spruce on a rather bare ridge near Mollie T. Lake. On August 20 there was an individual in similar

plumage among tamaracks and spruces at Leroy Lake. On September 30, in the Knob Lake area, a flock of half a dozen passed overhead near the old airstrip, with a note sounding somewhat like *tweet, tweet, tweet*. On the same date I collected an adult male from a band of about four birds in low woods of willow, alder, tamarack, and black spruce near the new airstrip.

This specimen was somewhat fat and weighed 62.8 g. Its skull was fully granulated. The testes measured 2×2 mm.; wing, 116 mm.; tail, 95 mm. The bill was fuscous, base of mandible brownish horn-color; tarsus, toes, and nails black. Its stomach and proventriculus contained spruce buds and *Vaccinium?* seeds. A few mites (*Ornithonyssus* sp. and Analgesoidea, indet.) were obtained from this bird. The adult female of July 20 was slightly fat and weighed 60.6 g. The skull was fully granulated; ovary somewhat enlarged; largest ovum, 1 mm.; brood-patch bare. The bill was fuscous, slightly paler toward base of mandible; tarsus, toes, and nails fuscous. There were insects in its mouth. Both specimens are closer in weight, as the male is in coloration, to *eschatosus* than to *leucura*; consequently they are referred to *eschatosus*.

A. E. Boerner reported quite a number of Pine Grosbeaks at Gad Lake toward the end of summer (the earliest about August 5). J. L. Véronneau (*in litt.*, June 26, 1955) saw three of the birds (with red breasts) about the headwaters of the Nemiscau River, January 26 and February 11, 1955.

The species apparently breeds more or less throughout the wooded portions of the Ungava Peninsula. Among the more important distributional data are: south coast—Godbout (Merriam, 1882a and 1882b:235) and Old Fort Bay (Stearns, 1890?:23); east coast—north of Aillik (Bigelow, 1902:29); Hamilton Inlet, near Hopedale, and Loup, Tikkoatokok, Nain, and Stag bays (Austin, 1932:182); and Cartwright (Miss Orr, 1948:224); north coast—Fort Chimo (Turner, 1885:239) and Kopaluk on George River (Hildebrand, 1950:64); west coast—Richmond Gulf and Great Whale River (Manning, 1949:210); interior—upper Hamilton River (Low, 1896:326); 96 miles up George River (Hildebrand, 1950:64); Kinglet and Coates lakes (Manning, 1949:210); Lake Mistassini (Macoun, 1886:34; Godfrey, 1949b:36). Specimens from Fort Chimo are referred to *P. e. leucura* by Oberholser (1914:51); from St. Peters Bay and Hawkes Harbour, to the same subspecies by Burleigh and Peters (1948:123); and from Lake Mistassini, to *eschatosus* by Godfrey (1949b:36).

Records by Merriam (1882a) and by Comeau (1923:419) of former breeding at Godbout, in connection with a dearth of more recent summer records along the North Shore, suggest a possible change of status in that area.

Acanthis linaria linaria (Linnaeus)
Common Redpoll; Kaipishissit mishoi (M.).

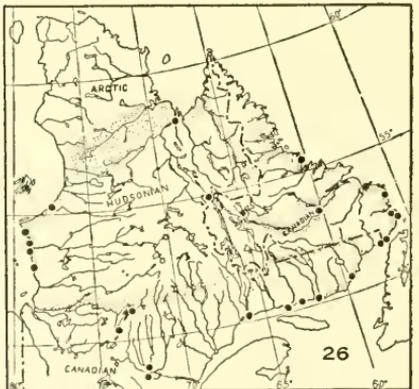
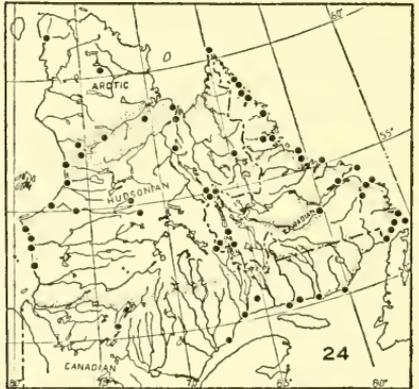
On the use of the specific name *linaria* instead of *flammea*, see Harper (1953:90).

In the Knob Lake area this bird was found on six or seven days from June 4 to 21. For the most part it appeared by ones or twos, as might be expected in the nesting season. Some (including one feeding on dwarf birch and others perching in dead spruces) were in burnt tracts. On June 6 I met with two among living and dead spruces near Slimy Lake, and a flock of about 35 on the eastern slope of Ruth Lake Ridge, at an altitude of about 2,000 feet. They were feeding in an alder thicket just below an extensive snowbank covering some of the higher, treeless slopes of the ridge. A couple of them bathed in a streamlet running through the thicket. On June 17 there were two among black spruces at the edge of an extensive sedge bog north of Knob Lake; and on the 20th three together (at least one of them a male) were feeding on the surface of this bog. On the 21st a pair were attracted by a Robin's vociferations in a burnt tract.

On July 10 two Redpolls together seemed to be gathering food on the rocky shore of an island at the entrance to the Iron Arm of Attikamagen Lake. At Knob Lake again in September, I found a flock of about a dozen on the 24th drifting down the little valley of Camp Brook through a burnt tract, among spruce, tamarack, willow, and dwarf birch. On the 27th, in another part of this tract, I met with a flock of about 25. They were feeding mostly on a clump of alders, and their tracks appeared on the surface of the snow, where the seeds of the alders were scattered thickly. There were likewise tracks and seeds on the snow in a near-by clump of dwarf birch.

An immature bird (female?), collected near Knob Lake on September 24, had little fat and weighed 13.3 g. Its skull was partly granulated. The base of the bill was orange-yellowish, tip dusky; side of maxilla and central part of mandible horn-color; tarsus and toes olive. The specimen yielded 10 Mallophaga (*Philopterus* sp.).

Although Townsend and Allen (1907:392) refer to this bird as "breeding throughout the length and breadth of the Labrador pen-



Distributional records of birds in the Ungava Peninsula:

21.—*Euphagus carolinus carolinus*.

23.—*Spinus pinus pinus*.

25.—*Passerella iliaca iliaca*.

22.—*Pinicola enucleator* subsp.

24.—*Zonotrichia nigrilora*.

26.—*Melospiza lincolni lincolni*.

insula," there is apparently no evidence, and little likelihood, that it does so in the extreme southern parts. Moreover, there are only three records (Shortt and Peters, 1942:347; Manning, 1949:211) from north of the tree-limit in northwestern Ungava. Hantzsch (1929:53) did not find it in the extreme northeast of the peninsula, but Austin (1932:185) reports seeing two adults [possibly *A. l. rostrata*?] at Port Burwell on August 19. On the south coast it is known at Pointe des Monts only as a winter visitor (Merriam, 1882b:235). Stearns (1890?:24) reports it at Old Fort Bay on October 28, but offers no evidence whatever in support of his statement that it breeds "all along the coast" of the Gulf. Townsend and Bent (1910:15) report "*Acanthis* sp.?" at Esquimaux Point (=Havre St. Pierre) as late as May 24 and June 2; but these dates are not necessarily indicative of nesting. The species apparently breeds all along the east coast north at least to Nachvak (Austin, 1932:184). On the north coast it is known from Fort Chimo (Turner, 1885:239), George and Nepihgee rivers (Hildebrand, 1950:64), south of Leaf Bay (Bateman, 1953:6), and Sugluk (Shortt and Peters, 1942:347). On the west coast there are records from Kovik Gorge (sight record) (Manning, 1949:211), Great Whale River (Eifrig, 1906:313; Savile, 1950:99), and from Moar Bay to Roggan River (Manning and Macpherson, 1952:29). Interior localities include: route from Richmond Gulf to Ungava Bay (Macoun and Macoun, 1909:470); Scoter, Bush, Minto, Bienville, Kinglet, Coates, and Gregory lakes (Manning, 1949:211); 50 miles inland from Nain Bay (Austin, 1932:184); Indian House Lake (Clement, 1949:372); Hamilton River (Low, 1896:326); Lake Mistassini (winter only, except for one injured bird in August) (Macoun, 1886:34; Godfrey, 1949b:37); and Goose Bay (Wynne-Edwards, 1957:77).

Spinus pinus pinus (Wilson)

Northern Pine Siskin. (Map 23.)

On May 24 a flock of seven or eight small finches, probably of this species, appeared on a grassy area among houses at Seven Islands. They were streaked beneath and more uniform in color than Redpolls; they acted just like numerous Siskins that I had been observing in recent months in New Jersey. On August 12, at Mollie T. Lake, a flock of five or six Siskins fed on dwarf birch catkins near my tent and also perched in near-by conifers. On the next day a flock of 25 or 30, apparently of the same species, passed by, twittering, and alighted in spruces. The Siskins may have been attracted to

this area by a serious outbreak of larvae (probably of a saw-fly, *Pristiphora erichsonii*) that were defoliating the tamaracks. On September 10 a flock of about a dozen, perhaps of this species, flew by at Carol Lake.

There are comparatively few previous records from the Ungava Peninsula. Audubon (1834, 2:455) reported Siskins, with young at the end of July, at Bradore. The birds are also found at Pointe des Monts (Merriam, 1882b:235) and from Mingan to Harrington and Bradore (Lewis, 1922:514). Macoun and Macoun (1909:480) present nesting data from Hamilton Inlet. Townsend and Allen (1907:394) saw a single bird at Battle Island. The Siskin is occasional in the Lake St. John area (Godfrey and Wilk, 1948:27) and fairly common at Lakes Mistassini and Albanel (Godfrey, 1949b:37). Occurrence as far north as Great Whale River (Savile, 1950:99) and Mollie T. Lake may represent a comparatively recent advance of the species.

***Loxia leucoptera leucoptera* Gmelin**

White-winged Crossbill; Oatshikoteshish kaoapishit (M.).

This species was met with at only two localities in the interior. Near Mollie T. Lake, on August 10, a male was perching on the top of a dead spruce in moderately heavy timber. Later in the day a flock of about four, including two red males, was seen in coniferous woods along the shore of the lake. Three days later two pairs were noted in the same area; one male was on the top of a dead tree, and its mate in a green black spruce.

At Stevens Lake, September 11, there was a group of four, including an adult male. Here again the species seemed given to perching for a considerable space of time in the uppermost branches or tops of spruces (white in this case).

The White-winged Crossbill is somewhat sparingly distributed through the wooded parts of the Ungava Peninsula. Some of the principal records are: south coast—Pointe des Monts (Merriam, 1882b:235), near Mingan River (Townsend and Bent, 1910:15), and Matamek River (Eidmann, 1937:164); east coast—Sandwich Bay, Makkovik, near Hopedale, and Okak (Austin, 1932:188), and Indian Harbour (Loomis, 1945:241); north coast—Fort Chimo (Turner, 1885:239); west coast—Great Whale River (Savile, 1950:99) and Sheppard Island, Paul Bay, and Fort George (Manning and Macpherson, 1952:29); interior—Hamilton River (Low, 1896:326), Lower Seal Lake (Doutt, 1942:65), Lake Bienville (Manning, 1949:

212), Lakes Mistassini and Albnel (Macoun, 1886:34; Godfrey, 1949b:37), Lake St. John (Godfrey and Wilk, 1948:27), and Goose Bay (Wynne-Edwards, 1957:77).

***Calamospiza melanocorys* Stejneger**
Lark Bunting.

A fine adult male of this species of the western plains, that turned up in Seven Islands on May 27, furnished the chief ornithological surprise of the season. It kept coming to a garbage pit in a backyard, where it hopped over the ground with a jaunty air. At one time it was within a foot of a slightly larger male Cowbird. It also perched on overhead wires in several different places. In addition to the big white wing-patch, there were small spots of white toward the tips of the wings. The bill was large, conical, and grayish or plumbeous. I was able to inspect these features at a distance of no more than 35 feet.

This is apparently the first record for the Province of Quebec. An occasional stray has been found in Massachusetts (Forbush, 1929, 3: 126) and at Toronto (Falls, 1947).

***Passerculus sandwichensis labradorius* Howe**
Labrador Savannah Sparrow.

Savannah Sparrows were moderately common at Seven Islands and vicinity, where from one to several were noted practically every day, May 25 to June 1. The places they frequented included bare areas, meadows near the bay and the Gulf, thickets of sweet gale and alder, and garbage dumps. No more than two or three were seen together.

An adult male taken on May 28 had a little fat and weighed 19 g. Its testes were 8×6 mm. The iris was olive-brown; maxilla dusky, tomium and mandible horn-color; tarsus and toes light brownish straw-color. In general lightness of coloration and in the pale straw-yellow above the eye, the specimen resembles *P. s. savanna*, but in its blackish crown it is more nearly like *labradorius*, and it is referred to that subspecies by John W. Aldrich.

I found a single bird in the brush beside Knob Lake on June 6, but no others in the entire interior, where they might have been expected in the numerous moss-sedge bogs. Not a song, not a call-note, was heard anywhere.

There are many records of Savannah Sparrows in the peninsula. Those of the east coast, of the north coast west to Sugluk, and of the

south coast west to the Mingan Islands, have been assigned to *labradorius*; and those of James Bay and Lakes Mistassini, Albnel, and St. John to *oblitus* (Peters and Griscom, 1938:452; Godfrey and Wilk, 1948:27; Godfrey, 1949b:37). Migrants of *labradorius* have been found at Lake Albnel (Godfrey, 1949b:38). The birds of the central interior remain to be determined. Some of the more important additional sources of information on the distribution of the *species* in the peninsula are: south coast—Merriam (1882b:235), Frazar (1887:34), Stearns (1890?:28), Palmer (1891:264), and Townsend and Bent (1910:15); east coast—Austin (1932:189) and Gross (1937:38); north coast—Turner (1885:240), Hantzsch (1929:56), Manning (1949:212), Hildebrand (1950:65), and Bateman (1953:6); west coast—Manning (1949:212), Savile (1950:99), and Manning and Macpherson (1952:29). Interior localities include: upper Hamilton River (Low, 1896:326), Scoter Lake (Manning, 1949:212), and Payne Lake, Povungnituk River, and Lake Ptarmigan (Eklund, 1957:74).

***Junco hyemalis hyemalis* (Linnaeus)**

Slate-colored Junco; Otete pisho (M.).

The familiar Junco was present in nearly all localities visited in the course of the season, from Seven Islands northward nearly 500 miles to Lac Aulneau. At a cowyard in Seven Islands on May 25 I saw one or two, and two were together among spruces near the Gulf shore several miles to the eastward on May 30. Again in October, several were seen in the town each day from the 9th to the 11th, in such places as vacant lots. On the 11th there were three or four in a flock in the town and two at the airport dump.

In the Knob Lake area from one to several were seen on each of five days, June 6 to 27. Several of the localities (Lejeune and Abel lakes, June 8, and St. Clair camp, 7 miles south-southeast of Knob Lake, June 24) are in Labrador. The places the birds frequented included burnt tracts, green spruce timber, and the vicinity of a garbage dump. Several pairs were noted on June 8.

Near the Iron Arm of Attikamagen Lake single adults were noted on July 1, 2, 4, and 13; one of these was among dwarf spruces at about 2,040 feet, above the general timber-line, while the others were in or near green timber at lower altitudes. On July 4 a bird was flushed from its nest in a tussock of moss in an open muskeg. The nest was overhung with bent old stems of a sedge, and it contained three callow young, well protected by upstanding down. On the

13th a Junco was gathering food in white spruces growing sparsely on a slope near timber-line. At the Northwest Bay of Attikamagen Lake several birds were seen, July 16 to 21, in spruce woods and a muskeg. One of them (July 16) was a juvenile.

At Lac Aulneau one or two Juncos were noted nearly every day, July 24 to August 2, chiefly in the camp area among spruce woods. Several others, including juveniles, were found near Mollie T. Lake, August 13 and 18, among spruces, tamaracks, and dwarf birches.

In the vicinity of Mile 224 Airstrip from one to several birds were seen daily, August 23 to September 4, and again on September 18. Most of them were concentrated about a huge garbage dump (pl. 3), and a few were noted in the main camp area, in a muskeg, or among alders and willows at the edge of the Ashuanipi River. The juvenal plumage was evident at least till September 2. An individual (sex?) in this plumage, taken here on August 29, was rather fat and weighed 20.4 g.; the skull was not granulated. The iris was grayish olive; maxilla brownish horn-color, mandible paler; tarsus and toes pale grayish-brown.

In spruce woods at Carol Lake from one to several birds were in evidence on most days from September 10 to 17. It was not until the 17th that a definite flock (of about five birds) was recorded.

At present the Junco seems to be a summer resident throughout the wooded parts of the Ungava Peninsula. However, it may have been only since the general warming of the climate during the last few decades that the species has pushed to the limit of trees in the extreme north. Turner (1885) did not find it at Fort Chimo, and Spreadborough in 1896 saw it "only . . . twice in crossing Ungava from Richmond gulf to Fort Chimo" (Macoun and Macoun, 1909: 530). In comparatively recent years it has been recorded from Kopaluk on George River (Hildebrand, 1950:65), from Fort Chimo (Gabrielson and Wright, 1951:139), and from a treeless summit in the Torngat Mountains near Nachvak Fiord (Wynne-Edwards, 1957:77). Elsewhere on the east coast it is found as far north as Nain (Austin, 1932:191), and along the south coast it is thoroughly distributed (Merriam, 1882b:235; Stearns, 1890?:29; Townsend and Bent, 1910:16). On the coast of Hudson Bay it is known from Great Whale River (Miller, 1941:422; Savile, 1950:99) and on James Bay from Poplar River to Paul Bay (Manning and Macpherson, 1952: 30). Interior localities include: upper Hamilton River (Low, 1896: 327); Bienville and Kinglet lakes (Manning, 1949:213); Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:38); Lake

St. John area (Godfrey and Wilk, 1948:28); Panchia Lake (Manning, 1947:82); and Goose Bay (Wynne-Edwards, 1957:77).

Spizella arborea arborea (Wilson)

Eastern Tree Sparrow.

The status of this bird in the central interior seems to have changed since Low wrote (1896:327) that it "breeds in great numbers on upper Hamilton River," and since Spreadborough found it "very abundant across Ungava from Richmond gulf to Fort Chimo" in 1896 (Macoun and Macoun, 1909:519). In 1953 I found it far less common than indicated by the authorities just cited; also by Manning (1949:214) for localities inland from the east coast of Hudson Bay, by Manning and Macpherson (1952:31) for the coast of James Bay, and by others for western Canada.

Knob Lake lies within the Hudsonian Life-zone, throughout which the Tree Sparrow presumably breeds. Yet in this area I met with just four solitary birds in June. Two were on Ruth Lake Ridge (in Labrador): one was among large spruces just below timber-line, at about 2,000 feet, June 6, and the other was among dwarf birches and scrubby spruces above the general timber-line, at about 2,200 feet, June 13. The other two, June 20, were in muskeg areas on the border of Knob Lake. On August 8 I found six or eight juveniles on the border of a pond at Burnt Creek, in a rather open growth of spruces and dwarf birches. On September 30 I saw one or more birds in the Barrens on the snowy summit of Dolly Ridge (1,900 feet), and on October 5 a flock of three near Slimy Lake.

Near the Northwest Bay of Attikamagen Lake, on July 20, I came upon a single bird in a black spruce and tamarack muskeg. On the east side of Lac Aulneau, on July 25, one was noted in a tamarack in a sedge bog. On August 19, at Leroy Lake, there was one in a willow thicket along the outlet, and one among spruces in lichen woodland.

On August 23 there were about five among spruces near the garbage dump at Mile 224 Airstrip. At Carol Lake and vicinity several were seen on September 10, 11, and 17 among spruces and willows. On the 11th I found several in a scrubby balsam thicket above the general timber-line on Lorraine Mountain, at an altitude of about 2,650 feet. In the vicinity of Seven Islands, on October 11, one was seen in spruce woods, one among alders on dunes by the shore of the Gulf, and about two in woods by the airport dump.

An adult male from Ruth Lake Ridge, June 13, was a little fat and weighed 18.6 g.; testes, 11×7 mm. The iris was olive-brown; maxilla

fuscous; mandible corn-yellow, tip dusky; tarsus light brownish; toes dark olive.

Along most of the North Shore of the Gulf the Tree Sparrow seems to occur only as a migrant (Stearns, 1883:117; Townsend and Bent, 1910:16; Comeau, 1923:423); but Townsend's record (1917:139) at Old Romaine on July 9 and Lewis' record (1930:110) of five in song a little inland from Bradore Bay on July 22 indicate breeding in those localities. It is a summer resident along the entire east coast from Saglek Bay southward (Austin, 1932:192). Records along the north coast are from Fort Chimo (Turner, 1885:240), Whitefish Lake and False River (Gabrielson and Wright, 1951:140), and south of Leaf Bay (Bateman, 1953:6). On the west coast the species is found at the breeding season from Korak Bay (Manning, 1949:214) south to the vicinity of Moar Bay (Manning and Macpherson, 1952:31). Interior records include: Lake Mistassini (Macoun, 1886:34); upper Hamilton River (Low, 1896:327); the route from Richmond Gulf to Fort Chimo (Macoun and Macoun, 1909:519); Indian House Lake (Clement, 1949:372); Gregory, Minto, Bush, Scoter, Bienville, and Kinglet lakes (Manning, 1949:213); Leaf and Povungnituk rivers and Lake Maryland (Eklund, 1957:74); and Goose Bay (Wynne-Edwards, 1957:77). (See also Mrs. Baumgartner's map, 1939:141.) Godfrey's failure (1949b:39) to find the Tree Sparrow at Lake Mistassini, where Macoun had reported it as breeding more than 60 years previously, might conceivably be accounted for by a northward shifting of the southern limits of the breeding range in correlation with the warming of the climate in recent years.

Spizella passerina passerina (Bechstein)

Eastern Chipping Sparrow.

At Seven Islands there was a flock of about four individuals at a cowyard and in the adjacent spruces on May 25; also a single bird was at at backyard garbage pit on May 27.

Comeau (1923:433) found this species at Godbout—apparently for the first time—in 1905. Subsequently it has been recorded by Lewis (1923:137; 1925:84; 1927:65) at Seven Islands, Mingan, and Natashquan; by Godfrey and Wilk (1948:28) in the Lake St. John area; and by Godfrey (1949b:39) at Lake Mistassini.

Zonotrichia nigrilora Todd

Eastern White-crowned Sparrow; Oaposkao pineshish (M.).

(Map 24.)

On the use of the name *nigrilora*, see Todd (1948; 1953), Man-

ning (1949:215), Harper (1953:102-103), and Wetmore (1953). The Montagnais name means "bird with a white crown" (Père J. E. Beaudet).

At Seven Islands and vicinity only a handful of Whitecrowns (probably migrants) were found in May: two on brushy roadsides on the 23rd, one in a little thicket among houses in the town on the 24th, and one at the airport dump on the 26th.

In the interior of the peninsula, as along the east coast and probably elsewhere, this aristocrat seems to be the commonest passerine bird. It is *the* sparrow of the Knob Lake area, where it was recorded on nearly every day from June 3 to 30; some of the localities (Ruth Lake Ridge and Abel and Slimy lakes) are in Labrador. It occurred most numerously in the burnt tracts (with a garbage dump the particular point of assembly), next in the rather bare camp area at the seaplane base, then in green spruce timber, and much less frequently in other habitats, such as a sphagnous mound in a sedge bog, dwarf birches above timber-line on Ruth Lake Ridge, and margins of lake or pond. As many as 10 or 12 might be seen at a garbage dump within a brief space of time. At such a spot they were confiding, sometimes approaching one within little more than a yard.

In the early days of June there were certain variable manifestations pertaining more or less definitely to nuptial behavior—a subject on which little information applicable to this species seems available. On the 3rd, for example, a bird flew up from the dump into a dead tree, fluttered its wings, and opened its bill—repeating several times. Two days later, in a burnt tract beside Pierce Lake, a pair were hopping about among the brush and blackened logs. One of them (presumably the female), in a slightly depressed position, fluttered its wings, as if by way of invitation to mating, but producing no visible result. Another trait, exhibited perhaps by the other bird, was an almost constant, wide spreading of the long tail. (It frequently wiped its bill, and meanwhile pecked at the capsules of a hair-cap moss, *Polytrichum juniperinum*.) On the 7th, in another burnt area, a bird was again observed pecking at and obviously swallowing the capsules of *Polytrichum*. Presently a mating apparently took place behind a rock, where the little murmurings or squawkings of the pair attracted a couple of other Whitecrowns. The crown feathers of the male seemed to be elevated. On the 11th, in approximately the same area, a Whitecrown flew to a log (where I noticed it had its tail spread), and partly opened its wings several times, somewhat spasmodically. No other bird was noticed near by.

On the 12th a bird flew up about 20 feet to a limb in a dead spruce and fluttered its wings. Again no other bird was in evidence. On the 18th three birds were engaged here in a nuptial pursuit.

Comparatively little singing came to my ears: on June 3, 6, 10, 16, 18, and 27. In the dusk on the 18th, for example, I heard several times a song bearing some slight resemblance to that which I used to hear from Gambel's Sparrow in the Athabaska region: *fee-gee, hee-lee-rrhu*. On the other hand, on the 16th I had seen and heard a Whitecrown singing a song that I rendered as *plee-tee-doo*. On the 27th the same notes came from a considerable distance. After much puzzlement over a song that seemed much too short for this species, I have concluded that these were merely the final three notes, and that the preliminary notes did not reach me at such a distance. The call-note, a fine *tsit*, was heard here throughout the month, and elsewhere occasionally up to August 1. Thereafter the birds seemed to be fairly silent. I found no distinction between a call-note ("a metallic *chink*") and an alarm note ("a sharp *chip*"), such as Townsend and Allen (1907:397) describe. I did remark that the note I have rendered as *tsit*, when heard near at hand, seems to have a slight metallic rasp.

On June 18 a nest with four eggs was found at the base of a spruce stump on a slope in a burnt tract (pl. 6). It contained twigs and *Cladonia* in its outer part and was lined with grass (probably *Deschampsia flexuosa*, which was common in that area). A couple of dead branches extended across and a little above the nest. In the immediate vicinity dwarf birch, Labrador tea, and *Vaccinium angustifolium* var. *laevifolium* were growing. When I revisited the nest three days later, the sitting bird allowed me within four feet before she flushed. On June 27 the adult sat on the edge of the nest while I approached to within six feet. The nest then contained an egg and three young. The inside of their mouths was vermilion; the commissure and tomia were corn-yellow. Down was projecting half an inch from their crowns, and to nearly the same extent from their backs and wings. As on the previous occasion, the adult from the nest perched in dead spruces or hopped around on the ground within a dozen feet, constantly calling *tsit*. Its mate remained farther away. On June 30 the three young were still downy, but showed contour feathers as yet in their sheaths. On this occasion the old bird came to within six to eight feet.

Whitecrowns were also found at Knob Lake and vicinity later in the season, between my trips to other points, on the following dates:

July 22, August 3 to 9, August 22, and September 22. (Among the localities in early August were Burnt Creek, Slimy Lake, and the old airstrip.) By August 4 these were the most familiar birds of the rather bare camp area; juveniles were now almost outnumbering adults. The birds did not hesitate to go beneath the platforms of the bunk-tents, in a space probably less than a foot high; and one disappeared into a pile of firewood logs. During a shower half a dozen juveniles found refuge in a pile of scrap lumber beside a warehouse. As I came along, some moved off a bit, but a couple remained under the shelter of some boards six to eight feet from me, where I heard from them a low twittering note of three or four syllables—different from any note I could recall hearing from the adults. Later one of the juveniles came to a platform where I was cleaning a bear hide, and time and again it approached within inches of my feet. It pecked a time or two at scraps of bear fat littering the platform. It was evidently after blowflies, too, and it seized one, but the fly seemed to escape a moment or two later. Whereas in June this species was probably the commonest bird of the local burnt tracts, by early August it seemed to have almost deserted them; in this month it was found more commonly in green timber. For the rest of the season juveniles outnumbered adults. On August 5 one of them flew into a warehouse and was captured and banded.

Near the northwestern end of the Iron Arm of Attikamagen Lake, on July 2 and 6, I found several Whitecrowns in small spruces or tamaracks on or near the summits of ridges. They were close to or above the general timber-line, at altitudes of 1,800 to 2,040 feet. At the Northwest Bay of Attikamagen Lake, July 15 to 22, a number of single birds were noted in spruce or tamarack growth, including a muskeg and our camp area.

At Lac Aulneau from one to several birds occurred on each of six days from July 23 to August 1. Most of them were in the camp area, from which many of the spruces had been cleared, also in virgin spruce timber, a muskeg, an alder thicket, and a brush pile. The first juvenile of the season was noted here on July 30.

At Mollie T. Lake, August 9 to 18, the birds were present in about the same numbers as at Lac Aulneau; the vast majority were juveniles. This species and the Ruby-crowned Kinglet were resorting particularly to tamaracks, presumably to feed upon the multitudinous larvae (probably of a saw-fly, *Pristiphora erichsonii*) that were defoliating these trees thereabouts. About half a dozen in a loose



FIG. 1.—Hand-reared young Herring Gulls, at full liberty, returning for occasional meal at hands of keeper. Ashmanipi Lake, Labrador. August 25, 1953.



FIG. 2.—Nesting site of Rusty Blackbird, 2 feet up in a 12-foot black spruce leaning over Camp Pond. *Chamædaphne calyculata* in foreground; burnt spruce tract beyond pond. Near Knob Lake, Quebec. June 11, 1953.



FIG. 1.—Nesting site of White-crowned Sparrow, in burnt spruce tract, W side Knob Lake, Quebec; below some dead sticks at base of nearest stump. Living vegetation: *Betula glandulosa*, *Ledum groenlandicum*, and *Vaccinium angustifolium* var. *laevifolium*. June 21, 1953.

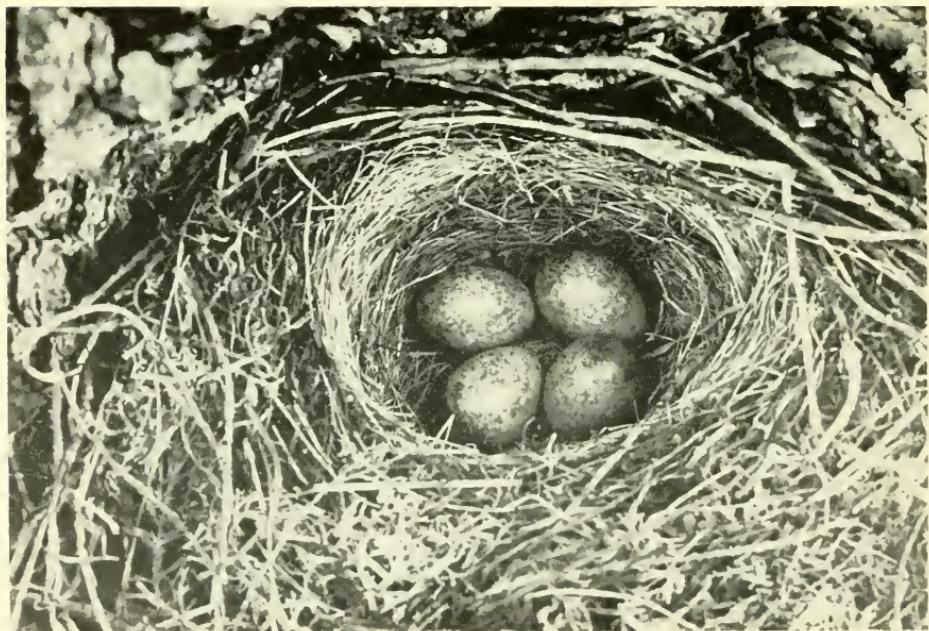


FIG. 2.—Nest and four eggs of White-crowned Sparrow, on ground at base of stump shown in fig. 1; constructed of twigs and *Cladonia*, with a lining of grass. Knob Lake, Quebec. June 21, 1953.

flock were thus observed on the 18th. The birds were also found in spruce timber and among dwarf birches. The first winter plumage was beginning to appear here on the 18th, and it was evident at Leroy Lake on August 20.

Whitecrowns were rather numerous at Mile 224 Airstrip and vicinity, being seen daily from August 23 to September 5 and from September 18 to 21. They were concentrated chiefly in the vicinity of the garbage dump (pl. 3), where as many as a dozen might be seen at one time; some occurred also in the rather bare camp area, or in an open growth of young white spruces and dwarf birches, or on the boggy border of a pond. Adults were nearly always in the minority. By August 24 the young birds were practically all in first winter plumage.

From one to several birds, adult and immature, were found at Carol Lake and vicinity on several days from September 9 to 16, chiefly in spruce woods. An adult was noted on the 11th in a scrubby balsam thicket above the general timber-line on the slopes of Lorraine Mountain, at about 2,650 feet.

A juvenal specimen (sex?) was taken in a willow swamp along Camp Brook at Knob Lake on August 8. It was slightly fat and weighed 24.5 g. Its skull was not granulated. Its iris was olive-brown; bill dusky distally, light brownish proximally; tarsus and toes pale olive-brown. A mite (*Laelaps* sp.) was preserved from it. Two specimens (male and female?) in first winter plumage were taken near Mile 224 Airstrip, August 23 and September 2. The male was rather fat and weighed 35 g. Its skull was not granulated; the testes were the size of pinheads. The other also was fat and weighed 31.4 g.; its skull was one-fifth granulated, and molt was in progress. In these last two specimens the iris was olive-brown or olive; the bill was dusky distally, brownish horn-color basally; tarsus and toes olive-brown or grayish-brown.

A Whitecrowns was occasionally seen through the summer at Gad Lake (A. E. Boerner), and others were reported in an area 20-30 miles north of the junction of the Larch and Kaniapiskau rivers (Arthur C. Newton). On July 1, 1949, Dr. F. D. Foster found a nest on the ground at Molson Lake.

Merriam's statement (1882b:236) that the Whitecrowns breeds at Pointe des Monts is scarcely borne out by later accounts of its status along the North Shore of the Gulf. Townsend and Bent (1910:16) found it at Esquimaux Point (=Havre St. Pierre) and Natashquan up to early June, but apparently only as a migrant, not a breeder.

Lewis (1925:75) reports it as a migrant in the Mingan Islands area, and as breeding from Piashte Bay eastward. (In the latter locality influence of the Hudsonian Life-zone probably begins to be felt.) The species breeds along the east coast north to Nachvak (Bigelow, 1902:30; Austin, 1932:193; Gross, 1937:38). On the north coast it has been found at Fort Chimo (Turner, 1885:240; Gabrielson and Wright, 1951:140), at Port Burwell (Gross, 1937:38; Shortt and Peters, 1942:347), and at Nepihgee River (Hildebrand, 1950:65). West coast records extend from Kovik Gorge, Richmond Gulf, and Great Whale River (Manning, 1949:214; Savile, 1950:99) south to the vicinity of Moar Bay (Manning and Macpherson, 1952:31). Interior localities include: upper Hamilton River (Low, 1896:326); route from Richmond Gulf to Fort Chimo (Macoun and Macoun, 1909:511); Indian House Lake area (Clement, 1949:372); Gregory, Bush, Minto, Bienville, Coates, and Kinglet lakes (Manning, 1949:214); Lake Maryland, Leaf River, and Gregory Lake (Eklund, 1957:74); and Goose Bay (Wynne-Edwards, 1957:77). Some of these records (for example, Port Burwell, Lake Maryland, and Kovik Gorge) represent noteworthy extensions into the Arctic Life-zone. Austin's statement (1932:194), implying that the species summers more or less generally in the Canadian Life-zone of the Ungava Peninsula, was evidently made on the unsubstantiated assumption (p. 1) that "south of Hamilton Inlet the wooded regions back from the coast are mainly Canadian in type." It is true that at Goose Bay, where Wynne-Edwards found the Whitecrown, the avifauna is predominantly of the Canadian Life-zone, but that fauna includes also a slight Hudsonian element. The recent absence of the species from Lakes St. John and Mistassini in summer (Godfrey and Wilk, 1948; Godfrey, 1949b) is especially significant. If Macoun (1886:34) was correct (and that is doubtful) in reporting the bird as a common breeder at Lake Mistassini in 1885, it must have shifted the southern limit of its breeding range northward since that time.

***Zonotrichia albicollis* (Gmelin)**

White-throated Sparrow; Tante nipatshiko tshikotshin (M.).

At Seven Islands and vicinity from one to several Whitethroats showed up nearly every day, May 22 to June 1. They frequented chiefly balsam and spruce woods; one or two were in an alder thicket, where a female unconcernedly scratched leaves within 10 feet of me. They were in song from May 22 onward. A male near

the airport dump gave its full song from a perch in a tree just a few feet over my head.

A Whitethroat observed on June 6 in a burnt tract by Slimy Creek, Labrador, furnished apparently the northernmost record but one in the peninsula. On August 25 a flock of half a dozen was foraging among willows and alders along the rocky edge of Ashuanipi River near Mile 224 Airstrip. On September 11 an adult was seen on the eastern slope of Lorraine Mountain in a scrubby balsam thicket above the general timber-line, at about 2,650 feet.

A. E. Boerner reported the species as common at Gad Lake.

There are summer records along the North Shore of the Gulf—Merriam (1882b:236), Frazar (1887:34), Stearns (1890?:30), Palmer (1891:264), Townsend and Bent (1910:16), and Townsend (1917:136); also along the extreme southern part of the east coast, north to Petty Harbour (Austin, 1932:195). In the west the White-throat is known only at Great Whale River (Savile, 1950:99) and along the coast of James Bay from Poplar River to Paul Bay (Manning and Macpherson, 1952:32). There are comparatively few interior records: Lake Mistassini, Grand Falls, and Romaine River (Low, 1896:326); for 20 miles up the Natashquan River (Townsend, 1913:178); Lakes Mistassini and Albanel (Macoun, 1886:34; Godfrey, 1949b:39); the Lake St. John area (Godfrey and Wilk, 1948:28); and Goose Bay (Judd, 1951:80; Wynne-Edwards, 1957:77).

Passerella iliaca iliaca (Merrem)

Eastern Fox Sparrow. (Map 25.)

The Fox Sparrow seems to be none too common an inhabitant of the interior of the peninsula; almost no records are available from there, except that Townsend (1913:178) heard it once or twice on his way up the Natashquan River for a distance of 80 miles.

A single bird was scratching in a willow thicket along Sucker Creek near Abel Lake on June 12. On July 10 one was pouring out a fine song from spruce tops on an island at the entrance to the Iron Arm, Attikamagen Lake; it sounded pretty much like the same species did on the Athabaska Delta in Alberta. At the Northwest Bay of this lake a Fox Sparrow was one of a number of birds (Gray-cheeks, Labrador Jays, and Myrtle Warblers) attracted by my "squeaking" among upland spruces on July 21.

At Lac Aulneau one was observed nearly every day, July 25 to August 1, in the camp area (thinned spruce woods); and on the 27th

there were two together. Near Mollie T. Lake two were found on August 10 in an alder and willow swale, where a *chack* note was heard from them. Several others were noted on the 15th and 17th, including one in the spruce-grown camp area, and one or two in a muskeg area near the shore.

An adult female, taken on August 10, was slightly fat and weighed 34.1 g. Its skull was fully granulated. The ovary was much reduced, and the brood-patch was bare. The stomach contained seeds. The iris was olive-brown; maxilla brownish; mandible horn-color; tarsus and toes light olive-brown.

The Fox Sparrow, although known along the North Shore of the Gulf from Godbout eastward, apparently does not breed in the more westerly parts (Couper, 1868:10; Frazar, 1887:34; Stearns, 1890?:33; Dionne, 1906:321; Townsend and Bent, 1910:16; Comeau, 1923:432; Lewis, 1925:76). It has been recorded along the east coast north to Nachvak (Austin, 1932:196); in the north at Fort Chimo and the George River Post (Hildebrand, 1950:65) and south of Leaf Bay (Bateman, 1953:6); and on the west coast at Richmond Gulf (Manning, 1949:215), at Great Whale River (Savile, 1950:99), and from Moar Bay to Paul Bay (Manning and Macpherson, 1952:32). Evidently this species has extended its range only recently to the north coast. Its current status in the Canadian Life-zone of the Ungava Peninsula requires further investigation.

***Melospiza lincolnii lincolnii* (Audubon)**

Lincoln's Sparrow. (Map 26.)

A single bird gave me a fine view of it on a white spruce in a willow swamp along Camp Brook at Knob Lake, June 18. The species must be rare in the central part of the peninsula.

It is known along the south coast near Natashquan, the type locality (Audubon, 1834, 2:539; Townsend, 1913:178), in various unspecified localities (Townsend and Bent, 1910:16), at Blanc Sablon (Townsend, 1917:146), in the Mingan Islands area and at Harrington (Lewis, 1925:76, 77), at Moisie Bay (Godfrey and Wilk, 1948:29), and on the east coast in a number of places north to Hopedale (Austin, 1932:197). In the north there is apparently only the single record from Fort Chimo in 1883 (Turner, 1885:241). On the west coast it has been found by Savile (1950:99) at Great Whale River, and by Manning and Macpherson (1952:33) from Moar Bay to Roggan River. The only previously known interior localities seem

to be Lakes Mistassini and Albanel (Godfrey, 1949b:39) and the Lake St. John area (Godfrey and Wilk, 1948:28).

Melospiza georgiana ericrypta Oberholser
Northern Swamp Sparrow.

This species was found only in the vicinity of Seven Islands: one bird was in a meadow bordering the bay, May 27, and one among sweet gale at the border of a grassy slough near the shore of the Gulf, June 1.

Along this North Shore it is known from Esquimaux Point (=Havre St. Pierre) and Mingan (Townsend and Bent, 1910:16), Piashte Bay and Blanc Sablon (Townsend, 1917:136, 146), Harrington (Lewis, 1925:76), and Moisie Bay (Godfrey, 1949a:36); in the interior, from the Lake St. John area (Godfrey and Wilk, 1948:29) and Lakes Mistassini and Albanel (Godfrey, 1949b:40); and on the James Bay coast, from Moar and Paul bays and Sheppard Island (Manning and Macpherson, 1952:33). These James Bay localities, close to the borders of the Arctic Life-zone, are among the most boreal places from which the Swamp Sparrow has yet been recorded. These occurrences may be further evidence of the recent northward extension of various elements in the avifauna. Up to the time of the *A. O. U. Check-list* of 1931, this was considered a breeding species of the Canadian and more southerly life-zones, with only a slight encroachment into the Hudsonian Life-zone in western Canada (Preble, 1908:445).

Melospiza melodia melodia (Wilson)
Eastern Song Sparrow.

A Song Sparrow was seen on open ground at a garbage dump near the Seven Islands Airport, May 26, and one was heard singing in a thicket in the town, May 28.

This species falls a little behind the Swamp Sparrow in the northern limits of its range. Hitherto, in the Ungava Peninsula, it has been found mainly along the North Shore of the Gulf: Godbout River (Merriam, 1882b:235); Blanc Sablon (Townsend, 1917:146); Esquimaux Point (=Havre St. Pierre), Betchewun, Agwanus, Natashquan, Romaine, and St. Mary's islands (Lewis, 1925:76, 85); and Harrington Harbour (Lewis, 1927:65). In the interior it has been recorded in the Lake St. John area (Godfrey and Wilk, 1948:29), but its reported occurrence at Lake Mistassini (Macoun, 1886:34) is not accepted by Godfrey (1949a:41).

Calcarius lapponicus lapponicus (Linnaeus)
Lapland Longspur.

A male in a cowyard at Seven Islands, May 25, was the only Lapland Longspur I noted in the season.

This species breeds fairly generally over the Arctic Life-zone of the peninsula, south probably to Cape Jones on the west coast (Manning, 1949:215) and perhaps as far as Holton Harbour on the east coast (Austin, 1932:198). Elsewhere it is a migrant. Some of the principal sources of distributional information are: south coast—Merriam (1882b:235), Stearns (1890?:27), and Lewis (1927:65); east coast—Bigelow (1902:30) and Austin (1932:198); north coast—Turner (1885:240), Payne (1887:76), Hantzsch (1928:36, and 1929:55), Manning (1949:215), Hildebrand (1950:65), Gabrielson and Wright (1951:140), and Bateman (1953:6); west coast—Manning (1949:215) and Manning and Macpherson (1952:33). Apparently the only interior records are from Hamilton River, in spring (Low, 1896:326); from Scoter Lake and 25 miles north of Port Harrison, in mid-July (Manning, 1947:78); from the Chubb Crater area, sometime between July 25 and August 20 (Martin, 1955:491); and from Payne Lake, Lakes Ptarmigan and Maryland, and Povungnituk River (Eklund, 1957:74).

Plectrophenax nivalis nivalis (Linnaeus)
Eastern Snow Bunting; Popon pineshish (M.).

In the course of my final ride from Knob Lake to the old airstrip, October 8, I detected on snowy Dolly Ridge a flock of about 30 small birds, with apparently a good deal of white in their plumage. They were presumably Snow Buntings.

This species has a somewhat more northerly breeding range than the Lapland Longspur, extending south on the west coast of the peninsula to McCormack Island (Manning, 1949:217) and on the east coast to Okak and perhaps Nain (Austin, 1932:200). Farther south it is a migrant and occasionally a winter visitor. For records on the south coast, see Merriam (1882b:235), Townsend and Bent (1910:15), and Lewis (1925:75, 76); on the east coast, Bigelow (1902:30), Austin (1932:199), and Gross (1937:39); on the north coast, Turner (1885:240), Payne (1887:76), Hantzsch (1928:36, and 1929:54), Hildebrand (1950:65), and Gabrielson and Wright (1951:140); and on the west coast, Manning (1949:217) and Manning and Macpherson (1952:33). Interior records include Lake Mistassini

(Macoun, 1886:34); Hamilton River (Low, 1896:326); apparently the Leaf River area (Flaherty, 1918:122); McGill Lake (Manning, 1949:217); the Chubb Crater area (Martin, 1955:491); and Lakes Ptarmigan and Maryland (Eklund, 1957:74).

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