

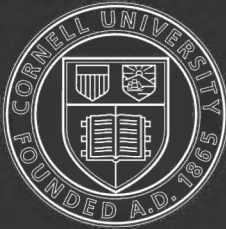
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BIRDS OF LABRADOR.

BY CHARLES W. TOWNSEND, M. D., AND GLOVER M. ALLEN.

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No. 7.— BIRDS OF LABRADOR.

BY CHARLES W. TOWNSEND, M. D., AND GLOVER M. ALLEN.

INTRODUCTION.

THE birds of Labrador have been studied by a number of observers and several lists, mostly partial, have been published. The most extensive of these appeared in 1891, published by Professor A. S. Packard. This list of 208 species was originally prepared by L. M. Turner in 1885 and was brought down to date by Dr. J. A. Allen.

Our own studies of the avifauna of this interesting region include a review of all the literature on the subject we have been able to find, and a visit to the Labrador coast in the summer of 1906. Although this visit was brief, we feel that we have obtained an idea of this region which our previous reading was unable to supply, and also that we have settled the status of the Horned Lark in Labrador, and cleared up the erroneous ideas that previously prevailed owing to the lack of definite information and extreme paucity of specimens. The study of this question was one of the chief objects of our trip. We were also fortunate in being able to make detailed observations on the interesting flight song of the American Pipit and the Horned Lark.

Our itinerary was as follows: crossing the Straits of Belle Isle from the Newfoundland coast in the mail steamship *Home* on July 10, 1906, we skirted the southern coast of Labrador from Blanc Sablon eastward, stopping at a few places and reaching Battle Harbor on the next day. Here we spent four days and explored Battle and Great Caribou Islands and also sailed in a small boat up St. Lewis Inlet to Mary Harbor where we spent a day and a night. From Battle Harbor we sailed on the *Virginia Lake* on July 15th to Nain which we reached on July 21st, and returned to Battle Harbor on July 26th. On the way north we dropped anchor at forty-five different ports of call and at about the same number on the return. We went ashore at as many of these places as possible, spending from fifteen minutes to three quarters of an hour at most of them, but having over an hour at Cartwright, and a whole day at Rigolet and again at Long Tickle. Even during the short stays we endeavored

to cover as much ground as possible, made notes on the birds observed, and shot specimens from time to time. On both steamers except when we were eating or sleeping we were always on deck either on the bridge or in the bow, making note of all the birds seen, using constantly strong binoculars, and occasionally having resort to a telescope. On the return trip we pursued the same tactics.

From July 26th to August 2d, we waited for the *Home* to take us south, but employed the time in a careful exploration of the bird life of Great Caribou Island, and the region about Cape Charles. At the latter place we stayed three days, and extended our trips from Indian Cove to The Lodge and some miles inland. On our return trip on the *Home* we went a little farther west than before, as we had a short time ashore at Bradore, the most easterly point reached by Audubon on the Labrador coast. We steamed away from there on our return by way of Newfoundland on August 3d.

We brought back 58 skins we had prepared and 20 skins we obtained from the Eskimos.

We gathered as much information as possible about the bird life from the natives, from Dr. Grenfell's assistants, and from the Moravians. Through the latter at Hopedale we obtained most of the skins made by the Eskimos. To Brother Schmitt at Nain we are greatly indebted for many interesting notes of arrival of birds and nesting dates. Although we were so unfortunate as to miss meeting Dr. W. T. Grenfell in Labrador, we are greatly indebted to him for his kind offers of assistance and hospitality, and for valuable information he has since given us in Boston.

We are also indebted to Mr. William Brewster and to Mr. Outram Bangs for the privilege of examining specimens in their collections and for other kind help; to Bowdoin college for the loan of a specimen of Horned Lark; and particularly to Mr. Harry C. Oberholser of the Biological survey at Washington for his study of our specimens of Horned Lark and Savanna Sparrows as well as other kind assistance. To Dr. Malcolm Storer we are indebted for the loan of his father's manuscript journal written in Labrador in 1849.

We are also indebted to Dr. B. L. Robinson, of the Gray herbarium, for the identification of our specimens of flowering plants and grasses, and to Dr. W. G. Farlow for the identification of lichens brought back by us from Labrador.

In the following pages will be found first a description of the topog-

raphy and faunal areas of Labrador, followed by an ornithological history, including an account of the expeditions of the ornithologists who have visited Labrador, and of the destruction of bird life and eggs there, and lastly an annotated list of the birds of this region as well as a bibliography.

Many of the ornithological records for Labrador are imperfect and of doubtful value and we have often found considerable difficulty in deciding on their merits. It is therefore possible that some of the species that are condemned to the doubtful or erroneous list (in small type) may be worthy of a higher position, and that some of the species in the regular list do not deserve that honor. We have, however, presented all the evidence we can find in all cases, so that readers can draw their own conclusions.

We have considered in all 259 species and subspecies, two of which are now extinct. Of the remainder we have put 44 species in the doubtful or erroneous list, leaving 213 species and subspecies whose status for Labrador we have considered certain. Of these, however, some 15 are of accidental occurrence only. The nomenclature and order followed, are those of the Check-List of the American ornithologists' union as corrected up to 1906, except in the case of the Horned Owl. Here we have adopted the name given by H. C. Oberholser.

TOPOGRAPHY.

Geography.—Labrador is a peninsula on the northeast coast of North America lying north of the Gulf of St. Lawrence. Its eastern coast, washed by the North Atlantic Ocean and the Arctic current, is some seven hundred miles in length, extending from Cape Charles at the entrance to the Straits of Belle Isle in north latitude 52° , north-northwest to Cape Chidley in latitude $60^{\circ} 30'$. On the north the peninsula is bounded by Hudson Strait and its offshoot, Ungava Bay. From Cape Chidley at the eastern to Cape Wolstenholme at the western extremity of this boundary the distance in a straight line, which runs about west-northwest, is nearly five hundred miles. The actual coast line is nearly twice as long. The western boundary is formed by the shores of Hudson Bay, and its prolongation southward into James Bay. This boundary runs nearly north and south for about eight hundred miles. The southern boundary is arbitrary, but is generally taken, and is so considered in this paper, 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 to our starting point at Cape Charles. This southern shore boundary is something over five hundred miles in length and the line from James Bay to the shore is nearly six hundred miles long.

As will be seen by the map, records from Moose Factory, Godbout, Point des Monts, and Anticosti Island are excluded as these places are outside of the limits of Labrador.

The most southern point in Labrador is at the fiftieth degree of north latitude on the southern coast near Seven Islands. The most northern station is Cape Wolstenholme at about latitude 63° N. The most eastern point is Battle Harbor at $55^{\circ} 32'$ west longitude, and the most western point is Cape Jones on Hudson Bay at longitude $79^{\circ} 50'$ W.

The total area embraced within the boundaries given above, according to Low, is approximately 511,000 square miles.

Much of this area is practically unexplored. The region lying north of Clearwater Lake, the Larch and Kokoak Rivers at Fort Chimo, has never been visited by white men. It extends from the boundary just mentioned in latitude 57° and 58° to the northern extremity of Labrador at Cape Wolstenholme, about latitude 63° . In this northern region it is probable that certain gulls, ducks, and shore birds may be found breeding that are as yet unrecorded for Labrador, except as transient visitors.

Geology.—To A. P. Low we are chiefly indebted for an account of the geology of this region. More than nine tenths of the rocks of the Labrador peninsula are highly metamorphosed Laurentian rocks, gneiss, and schists. The remainder belong in the Huronian and Cambrian horizons and occur in scattered areas. "Under the name Huronian are included several widely separated areas of clastic and volcanic rocks, together with many basic eruptives; these are represented by various schists, conglomerates, breccias, diorites and other rocks more or less interfolded with the Laurentian.

"The Cambrian rocks rest unconformably upon the Laurentian and Huronian, and are made up of bedded sandstones, argillites, shales and limestones, along with bedded traps and other basic intrusive or volcanic rocks" (Low, '96, p. 196).

Along the southern coast fronting the Straits of Belle Isle extend -

red sandstone hills and cliffs, showing horizontal strata. The underlying Laurentian rocks appear at the eastern end of the Straits. Narrow strata of light-colored limestone appear in places. The cliffs at The Battery near Forteau reach a height of 350 feet; the small mountains immediately behind are 1100 feet high. The sandstone is soft and, as at Paroquet Island, makes excellent burrowing material for the nests of Puffins.

The exposed rocks of the eastern coast are largely Laurentian, cut by numerous basaltic dikes. Immediately back of the coast the land rises gradually from insignificant hills in the south to mountains of 6000 feet near Cape Chidley.

The coast line itself, although showing in many places evidence of recent elevation in the form of raised beaches, is characteristic of a depressed or drowned region. This is shown by the numerous islands and the deep fiords, called here "tickles," with which the coast is beset. These features furnish excellent nesting sites for many water birds. The largest of the fiords is Hamilton Inlet, which stretches back into the land one hundred and fifty miles, with an average width of fourteen miles. Evidences of recent glaciation are shown everywhere, in the *roches moutonnées*, the glacial grooves and scratches, and the numerous erratics.

In the interior, much of which is unexplored, are high tablelands, numerous hills, a few mountains, and a network of rivers, lakes, and ponds. The most noticeable of these features are the Mealy Mountains, the Hamilton or Grand, Nauscauppee, George, Koksoak, East Main, Whale, Eskimo, and Natashquan Rivers, and Mistassini, Nichicun, Petitskapau, Michikamau, Clearwater, and Indian House Lakes.

During the long winter from October to June the lakes and rivers are covered with ice and the ice along the seacoast forms a solid highway upon which the inhabitants travel on dog-sledges. Dr. W. T. Grenfell tells us that the breadth of this strip of solid ice along the eastern coast every winter is from twenty to twenty-five miles, while outside of this is the loose "slob" ice, which drifts back and forth with the winds and tides, varies greatly in thickness and density, and may extend fifty or more miles out to sea. In the Straits of Belle Isle, with their strong tides, there are generally a few open places even in mid-winter, and Cartwright speaks of open places near some of the outer islands even on the eastern coast. Even in the northern parts of Hudson Bay open water is to be found in places in winter.

Low in "The cruise of the *Neptune*" speaks of finding Brännich's Murres, Dovekies, and Old-squaws in the open water at Fullerton, northwest of Cape Wolstenholme throughout the winter. The presence or absence in winter of such water birds as Glaucous Gulls, Eiders, Razor-billed Auks, and Dovekies is of course dependent on the presence or absence of these open spaces.

Mention will be made of the tree growth and other flora under the following head.

FAUNAL AREAS.

Three life zones may be recognized with more or less clearness, in the peninsula of Labrador. These are the Arctic, the Hudsonian, and the Canadian zones.

Arctic zone.—This is the most clearly defined of the three areas. It includes the barren grounds of the northern portion of Labrador south to the upper limit of tree growth on a parallel nearly coinciding with that of the southern shores of Ungava Bay in about latitude 58° N. Thence the Arctic area extends in a narrowing strip along the entire east coast and on the south coast as far west as Mingan. On the Hudson Bay side, according to the observations of Low, the barren coastal strip extends southward about as far as the mouth of the Great Whale River (lat. 55° N.).

Elsewhere, in the interior of the peninsula, the Arctic zone includes the barren tops of the mountains and higher hills, but the precise level at which the tree growth ends and the barren area commences, varies from near sea level at a short distance from the coast in southern Labrador to several hundred feet in the latitude of the Mealy Mountains, as determined by the factors of slope and exposure.

In the vicinity of Battle Harbor at the easternmost point of the country, the Arctic strip extends from the exposed coasts of the outer islands, in onto the mainland for from one to three or four miles as a practically unbroken "barren," sprinkled with lichen-covered ledges and carpeted with turf of reindeer lichen, sphagnum, Empetrum, sedges, creeping willows, and various other species of herbaceous plants, including the following, kindly determined for us by Dr. B. L. Robinson of the Gray herbarium, from specimens collected at various points along the coast: *Betula pumila*, *Salix argyrocarpa*, *S. uva-ursi*, *S. anglorum*, *S. glauca*, *Polygonum viviparum*, *Saxifraga caespitosa*, *S. rivularis*, *Cerastium alpinum*, *Rubus chamaemorus* ("bake-apple"), *R. arcticus*, *Vaccinium uliginosum*, *Sedum roseum*,

Silene acaulis, *Menyanthes trifoliata*, *Loiseleuria procumbens*, *Smilacina trifolia*, *Phyllodoce caerulea*, *Kalmia polifolia*, *Cornus suecica*, *Luzula parvifolia*, *Pinguicula vulgaris*, *Linnaea borealis*, var. *americana*, *Festuca ovina*, *Calamagrostis Langsdorffii*, *Plantago borealis*, *Epilobium palustre*, *Potentilla palustris*, *Elymus mollis*, *Poa laxa*, *Poa pratensis*, var. *domestica*, *Carex atrata*, *C. rariflora*, *C. rigida*, var. *Bigelovii*, *Eriophorum Scheuchzeri*, *E. polystachion*, *Cochlearia officinalis*, *Scirpus caespitosus*.

In addition to these the common plants of which we did not bring back specimens were: *Empetrum nigrum*, *Ledum palustre*, *Lathyrus maritimus*; also much dwarfed and procumbent specimens of *Abies balsamea*, *Picea Canadensis*, *Picea Mariana*, and *Larix laricina*. As proof of the Arctic difficulties with which these trees labored, we found 54 rings in the cross section of the trunk of a fir 2 inches in diameter whose topmost twig was only thirteen inches from the ground.

The following lichens we collected, were kindly identified by Dr. W. G. Farlow: *Nephroma arcticum*, *Buellia geographica*, *B. petraea*, *Parmelia saxatilis*, *Alectaria ochroleuca*, var. *nigricans*, *A. jubata*, *Umbilicaria cylindrica*, *Placodium elegans*, *Pannaria brunnea*, *Pertusaria* sp.?, *Stereocaulon coralloides*, *S. paschale*, *Cladonia rangiferina*, *C. deformis*, *Lecanora bodia*, *Trentepohlia aurea*.

In the latitude of Nain (57° N.) the Arctic area extends considerably farther in from the sea than at points more to the south. Moreover, since the land rises gradually with the increase of latitude, this life zone has a greater extent, inasmuch as the upper limit of the stunted tree growth is reached at a lower level than farther south.

The avifauna of the Arctic zone in Labrador is limited as to both species and individuals. Of characteristic Arctic land birds that breed in Labrador may be mentioned: Rock Ptarmigan, Reinhardt's Ptarmigan (in northern portion), American Rough-legged Hawk, White Gyrfalcon, Black Gyrfalcon, Snowy Owl, Horned Lark, Snow Bunting, Lapland Longspur, American Pipit, and Wheatear. Possibly the White Wagtail may be added to this list, although the presence of this species and of the Wheatear as breeding birds in the area under consideration is probably sporadic. In the marshy pools grown up to rushes and sedges Northern Phalaropes are to be found breeding. The Semipalmated, Least, and Spotted Sandpipers, and Semipalmated Plover also breed on and near the coast. Along the

rocky shores are numbers of sea-fowl whose breeding area does not of course closely coincide with that of land birds.

The few species of characteristic Arctic land birds are not evenly distributed over the barren area. They are most numerous, at least in point of species, in the more northern part. Thus in the region about Ungava, Ptarmigan, Rough-legged Hawks, Gyrfalcons, Snowy Owls, Horned Larks, Snow Buntings, Lapland Longspurs, Pipits, and Wheatears are all breeding birds, but as we follow the Arctic coastal strip south, the Ptarmigan, Snow Buntings, and Lapland Longspurs soon become less common, and over most of the southern portion of this area, the Rough-legged Hawks, Horned Larks, and Pipits are the only Arctic birds that seem to be of general distribution. In addition to these species, however, should be mentioned the Savanna Sparrow, which, with the Horned Larks and the Pipits, is one of the most characteristic of the barren-ground birds of Labrador. To us who are accustomed to seeing this bird in the grassy meadows of the eastern United States, it seems strangely out of place on the wind-swept moors of this bleak coast.

Hudsonian and Canadian zones.—These two zones, inasmuch as they are separated by no sharp line of demarcation, may best be considered together. Although the upper limit of the Hudsonian fauna coincides closely with that of the stunted tree growth, the transition from the Hudsonian to the Canadian is so gradual that no definite boundary can be traced between them. At the upper limit of the Hudsonian, where it borders upon the Arctic zone, the trees become greatly dwarfed and exceedingly dense and scrubby. White and black spruces, balsam firs, and larches grow in matted thickets from three to six feet high with outlying clumps of even less height occurring in sheltered spots as "islands" within the Arctic area. Back from the barren coastal strip in the sheltered valleys, ravines, and river bottoms these trees attain a more vigorous growth so that along the shores of Hamilton Inlet and southward they reach here and there the height of twenty-five or thirty feet. In addition to the conifers, there are occasional clumps of stunted paper birch and aspen, while along the streams there are thickets of alder and willow. Inland, "the forest is continuous over the southern part of the peninsula to between latitudes 52° and 54° . . . To the northward of latitude 53°, the higher hills are treeless and the size and number of the barren areas rapidly increase. In latitude 55°, more than half the

surface of the country is treeless, woods being only found about the margins of small lakes and in the valleys of the rivers. Trees also decrease in size until, on the southern shores of Ungava Bay, they disappear altogether. The Leaf River, which empties into the bay a few miles north of the mouth of the Koksoak River, is the northern limit of forest trees on the west side of Ungava Bay. Along the east coast of Hudson Bay, Dr. Bell found trees growing a few miles beyond the north end of Richmond Gulf. . . . So that a line drawn a little south of west, from the mouth of the Leaf River to the mouth of the Nastapoka River on Hudson Bay, would give a close approximation to the northern tree limit [and thus to the Hudsonian zone] of western Labrador" (Low, '96, p. 31). In eastern Labrador, Low states that the tree line "skirts the southern shore of Ungava Bay and comes close to the mouth of the George River, from which it turns south-southeast, skirting the western foothills" of the treeless Atlantic coast range, southward at a short distance from the coast, until at the latitude of Battle Harbor, small trees are found in sheltered places at a distance of a mile or less from the open sea.

There are comparatively few species of birds in the stunted growth at the upper edge of the Hudsonian zone. Most characteristic, however, is the White-crowned Sparrow which is everywhere common in the small trees and continues to be met with as the trees diminish in size and abundance even until they finally become mere scattered clumps or islands reaching into the lower edge of the Arctic zone. Thus the outpost colonies of one or more pairs of these birds were often found in barren situations where a few small dwarfed clumps of fir and spruce gave a little shelter. Such birds of course found it necessary to extend their feeding grounds into the surrounding Arctic zone, and it seemed evident that at the upper limit of their range they should be considered as inhabitants of that area, although clearly invaders from the Hudsonian zone. In common with the White-crowned Sparrows, the Tree Sparrows also inhabit the stunted growth at the upper edge of the Hudsonian area which they appear to choose in preference to the thickets of taller trees in less exposed situations.

The more extensive tracts of small trees up to fifteen feet in height are the home of numerous other characteristic Hudsonian birds. White-winged Crossbills in small flocks pass occasionally overhead, or make a brief pause among the tops of the evergreens; Redpolls

are common among the low scraggly firs and spruces, or fly about overhead singing. Lincoln's Sparrows occur in small numbers along the edges of open barrens or near swamps, and Fox Sparrows and Alice's Thrushes sing from the fir thickets. Along the courses of streams in the tangles of alder and willow, an occasional pair of Tennessee Warblers is established and Wilson's Warblers delight in similar situations as well as in the low second growth of bushes and young evergreens that follows a clearing of the original forest.

The following fifteen species, found breeding in Labrador, may fairly be considered as typical Hudsonian birds: Willow Ptarmigan, Pigeon Hawk, Richardson's Owl, American Hawk Owl, Hoary Redpoll, Common Redpoll, White-crowned Sparrow, Tree Sparrow, Lincoln's Sparrow, Fox Sparrow, Northern Shrike, Tennessee Warbler, Wilson's Warbler, Ruby-crowned Kinglet, Alice's Thrush.

The northern limits of the so called Canadian zone are difficult to fix in Labrador. A number of land birds that are most common in the Canadian zone extend their range northward (often more or less sporadically as in favored valleys or sheltered places) so that they occur in territory whose inhabitants are for the greater part typical Hudsonian species. The following 22 species represent this class of birds whose range includes both the Canadian zone and more or less, as the case may be, of the Hudsonian: Spruce Grouse, Canadian Ruffed Grouse, Goshawk, Labrador Great Horned Owl, Arctic and American Three-toed Woodpeckers, Labrador Jay, Rusty Grackle, Canadian Pine Grosbeak, Pine Siskin, White-throated Sparrow, Slate-colored Junco, Myrtle Warbler, Bay-breasted Warbler, Black-poll Warbler, Yellow Palm Warbler, Northern Water-Thrush, Winter Wren, Red-breasted Nuthatch, Hudsonian Chickadee, Golden-crowned Kinglet, Olive-backed Thrush. Of these the White-throated Sparrow, Junco, Myrtle, Bay-breasted, and Yellow Palm Warblers, Water-Thrush, Winter Wren, Red-breasted Nuthatch, Golden-crowned Kinglet, and Olive-backed Thrush are more Canadian in their tendency and do not appear to go much farther north than the southernmost part of the Labrador peninsula, while others, as the Spruce Grouse, Goshawk, Labrador Jay, Rusty Grackle, Canadian Pine Grosbeak, and Black-poll Warbler extend more into the Hudsonian zone and occur over much more of the small tree growth.

The following 11 species are more typically Canadian, and barely reach the southern portion of Labrador, where they occur in favor-

able localities more especially toward the southwestern portion of the peninsula, and the region about Lake Mistassini: Saw-whet Owl, Northern Hairy Woodpecker, Olive-sided Flycatcher, Yellow-bellied Flycatcher, Purple Finch, American Red Crossbill, Magnolia Warbler, Black-throated Green Warbler, Canadian Warbler, Black-capped Chickadee, Hermit Thrush.

In a very general way, the latitude of Hamilton Inlet may probably be taken as the northern limit for the Canadian species of birds, though a few such as the Rusty Grackle and Pine Grosbeak extend their ranges much beyond this. On the other hand, most of the species that are strictly limited to the Canadian zone do not come quite so far as this.

The intermingling of these species of the Hudsonian and Canadian zones was well shown by our experience at St. Lewis Inlet near Battle Harbor. Here we found Redpolls, White-crowned Sparrows, Lincoln's Sparrows, Black-poll, Wilson's, and Tennessee Warblers, and Alice's Thrush, as well as White-throated Sparrows, and Hermit Thrushes. The strong-flying, wide-ranging American Robin was also a common bird here.

In addition to these land birds that are characteristic breeding species, there are others that occur occasionally as stragglers in the southern part of Labrador, having come from still farther south, and whose general northern range is limited by the Transition zone. Such are the Marsh Hawk, Belted Kingfisher, Northern Flicker, Nighthawk, American Crow, Song Sparrow, and Cedar-bird. The presence of these birds, however, is more or less irregular or accidental.

MIGRATION.

The coastwise migration of many of the waterfowl of Labrador is of interest. Dr. Grenfell has described the "ceaseless stream of birds" passing south during the last of October near Battle Harbor. "Long solemn streams of eider ducks, leisurely, and more graceful clouds of gulls, more bustling companies of auks and guillemots, and all the while fringes of fussy murrelets" (Dovekies). These birds appear to follow along the coast to the southern shores of Labrador and the Gulf of St. Lawrence, or even farther, to the Nova Scotia waters. The amount of ice along shore determines largely whether the ducks, gulls, guillemots, and auks stay during the winter in south-

ern Labrador. As long as there are stretches of open water near shore they can obtain food, but when the bays and inlets are frozen and the ice floes become more or less solid for miles from land, the birds are forced to keep farther south.

Bell ('83, p. 54) describes the fall migration to the west of Labrador in the following words: "On Hudson's Bay in autumn, the geese, ducks, plover, etc., come from the north, and also gather from either side, and fly southward along each line of shore, congregating in large numbers where these two meet at the head of James' Bay, from which they fly so as to pass eastward of Lake Superior." Doubtless many of the water birds that reach the St. Lawrence River basin in Ontario, during the fall migration, come by this route, overland from James Bay.

The immense numbers of Eskimo Curlew that formerly migrated to the south and east shores of Labrador before departing over sea for the Antilles and South America are elsewhere mentioned, as well as the migrations of the ptarmigan from the interior to the southern coast of Labrador.

Regarding the spring migrations there is comparatively little known. Audubon mentions the arrival of the Loons on the south coast, that had apparently come directly across the Gulf of St. Lawrence. The passage of the Brant from the southern shores overland to the polar seas is said to be accomplished at a single flight. Cartwright speaks of the flights of ducks in early spring looking for water and the great flocks of eiders in the spring migrations are described by him and by Stearns.

An interesting wanderer is the Snow Bunting that passes south in great numbers from the far north during fall. This is a bird of strong flight but appears often to be carried out to sea by the north-westerly gales and is known to reach even the Azores. That many of the smaller land birds do cross the full breadth of the Gulf of St. Lawrence in their spring and fall migrations seems to be indicated by the observations recorded by Trumbull ('05). It is not clear, however, to what extent the presence of small birds crossing this wide stretch of water is accidental.

In addition to the migration of many of the land birds to more southern climes in winter, there is some evidence of a more restricted movement on the part of the hardier species, from the interior or northern part to the coast of southern Labrador. Thus the Labra-

dor Jay and the Hudsonian Chickadee, perhaps also the Pine Grosbeak, have been observed moving in fall in a definite migratory way, but the extent of these movements is quite unknown.

ORNITHOLOGICAL HISTORY — ORNITHOLOGISTS.

Although Audubon was the first ornithologist to study the birds of Labrador, there is much of ornithological interest to be found in the writings of an earlier explorer of this region. George Cartwright, Esq., published in Newark, England, in 1792, three quarto volumes entitled: "A journal of transactions and events during a residence of nearly sixteen years on the coast of Labrador, containing many interesting particulars both of the country and its inhabitants not hitherto known. Illustrated with proper charts." The abundant bird life of his times is vividly portrayed in the accounts of the flights of Curlew in the fall, the great numbers of ducks and geese, murre, and gulls crowding the islands and furnishing the polar bears and Cartwright's company with many feasts of eggs. Some of these notes will be entered later in the annotated list, but it is of interest to mention here that Cartwright describes the capture of a Great Auk. He also speaks several times of shooting *pie*d ducks, but there is of course considerable doubt as to whether the now extinct *Camptolaimus labradorius* is referred to, although there are reasons to believe that this is the case. The names he uses for other wild fowl, as Whabby for Red-throated Diver, Hound for the Oldsquaw, Tinker for the Razor-billed Auk, and Bull for Dovekie are still employed on the coast.

Cartwright's chief places of residence in Labrador were at Cape Charles at the eastern end of the Straits of Belle Isle, and at Sandwich Bay the present site of the Hudson's Bay company's post of Cartwright. He arrived at Labrador in July, 1770, and left it for the last time in the summer of 1786.

The earliest definite ornithological investigation of the Labrador fauna was made by the illustrious Audubon.¹ He departed on a long-contemplated trip to this region from Eastport, Maine, on June 6, 1833, on the schooner *Ripley*, commanded by Captain Emery. His party, all young men under twenty-four years of age, consisted

¹ The observations made by Sir John Richardson and recorded in his "Fauna Boreali-Americana" (1829-1837) were all made in the regions to the north and west of Hudson Bay. They are therefore outside of the Labrador region.

of his son, John Woodhouse Audubon, Dr. George C. Shattuck and William Ingalls of Boston, Thomas Lincoln of Dennisville, Maine, and Joseph Coolidge. They sailed through the Strait of Canso, visited the Magdalen Islands, and passed Bird Rock, white as snow with Gannets. The *Ripley* came to anchor in American Harbor, Labrador, near the mouth of the Natashquan River, on June 17th. From this point they cruised easterly along the southern coast of Labrador, touching at Little Mecatine, Baie de Portage, and Bras d' Or. They spent nearly two months in Labrador and sailed for home on August 11, 1833.

Audubon's southern blood was chilled by the rough climate, and his spirits were depressed by the ruggedness and desolation of the scenery. He accomplished an immense amount of work, however, rising at three o'clock, and drawing often for seventeen hours almost continuously in the crowded, wet, and usually very unsteady cabin. Here he was obliged to protect his work from the water which dropped from the rigging, as there was no window to the cabin and the only light was admitted through the hatches. He was often wet to the skin, chilled by the cold, pestered by the innumerable flies and mosquitoes, frequently seasick and worn by the long hours without sleep. He attributes his fatigue to none of these, but exclaims: "No! No! It is that I am no longer young." He found the sea birds breeding in great numbers on the islands, observed the actions of the piratical "egggers," and witnessed the great flight of Eskimo Curlew. He added a new species to science in the Lincoln's Sparrow, named by him after his young companion, Tom Lincoln.

His "Journal" states that "twenty-three drawings have been executed, or commenced and nearly completed." Among these are the drawings of the Loon, Puffin, Pomarine Jaeger, Arctic Tern, Gannet, Common Cormorant, Eskimo Curlew, Willow Ptarmigan, Labrador Gyrfalcon, Horned Lark, White-winged Crossbill, Redpoll, Lincoln's Sparrow, Pipit, Hudsonian Chickadee, and Ruby-crowned Kinglet. Seventy-three bird skins were prepared, mostly by his son John. Besides the plates, the results of this Labrador trip are given in frequent references in Audubon's written works.

Audubon recorded many birds for southern Labrador that are unknown there today. Some of these are now more northern, others more southern in their distribution. In the case of some of the fly-catchers and other poorly marked birds it is probable that he was

mistaken in his identification, but we cannot believe that he made an error in the case of other birds such as the Oyster-catcher, Least Tern, or Black-throated Loon. It seems probable that some of these birds were on the frontiers of their breeding grounds in southern Labrador and that as the numbers of birds were diminished by the agency of man, the species as a whole withdrew its outposts and the more favorable central portions of its range were alone utilized. For example the Least Tern which Audubon found breeding in Labrador, also formerly bred on the Massachusetts coast north of Cape Ann but is not found now north of Cape Cod. In a similar way the Black-throated Loon is not now known to breed in southern Labrador, but Audubon found it preparing to breed in that part of the peninsula.

In the summer of 1849, Dr. Horatio R. Storer with his brother F. H. Storer, and Dr. Jeffries Wyman, explored the southern coast of Labrador from American Harbor to Red Bay. They were there from July 20th to September 25th. Dr. Storer published in the *Journal of the Boston society of natural history* the results of his studies on the Labrador fishes. His manuscript journal, kindly lent us through his son Dr. Malcolm Storer, contains several interesting observations on birds which are noted elsewhere in this paper. Dr. Storer's bird skins were unfortunately largely destroyed by the dampness of the climate.

Dr. Henry Bryant studied the birds of the Bay of St. Lawrence in the summer of 1860, visiting Bird Rock and the southern coast of Labrador from the Romaine River on the west to Chateau on the east.

Dr. Elliott Coues visited Labrador in the summer of 1860 in order to procure specimens of birds and eggs for the Smithsonian institution. He arrived at Sloop Harbor on the southern coast about the 3d of July. Leaving there on the 6th, he proceeded directly to Esquimaux Bay, where the greater part of the summer was spent. He was at Rigolet for a few days. On August 15th, he sailed to Henley Harbor on the Straits of Belle Isle and remained there two weeks before sailing for home.

A. E. Verrill, in 1861, studied the natural history of the Bay of St. Lawrence, particularly the island of Anticosti. He extended his observations, however, to the limits of Labrador, visiting the Mingan Islands from July 4th to July 11th.

In the summer of 1862 the late N. Vickary, of Lynn, went to Labrador, but published nothing on the subject.

Dr. A. S. Packard visited Labrador in 1860 and in 1864, as will be noted later.

W. A. Stearns spent two summers and one whole year in Labrador, his explorations being confined to the southern coast. The two summer months of 1875 were spent within a radius of 60 miles southwest and 10 miles northeast of Bonne Esperance. He stayed from September, 1880, to September, 1881, at Bonne Esperance and explored the coast from Mingan to Red Bay; in July and August, 1882, he again visited the Labrador coast sailing from Boston in a sloop. He touched at various points between Bonne Esperance in the Straits of Belle Isle and Triangle Harbor a few miles south of Hamilton Inlet.

Ludwig Kumlien did not actually visit Labrador, but he has recorded some interesting observations made while skirting its coast on his voyage to and from Greenland. He sailed north from Newfoundland in 1877, going through the Straits of Belle Isle on August 18th. On August 22d he was off Cape Mugford. His return trip was made in October, 1878, along the northern coast of Labrador and the eastern coast of Newfoundland.

William Brewster, in 1881, while exploring the Bay of St. Lawrence and Anticosti, reached the southern coast of Labrador at the Mingan Islands. He was at these islands from July 17th to July 22d.

Lucien M. Turner appears to have been the first ornithologist to reach northern Labrador. He was in Labrador from June 15, 1882, to October 3, 1884, and he stayed at Fort Chimo on the shores of Ungava Bay from August 6, 1882, to September 4, 1884. His ornithological notes, including a list of the birds, were first published in 1885.

In 1891, A. S. Packard republished this list bringing it up to date by notes written by Dr. J. A. Allen. Professor Packard spent the summer of 1860 on the southern Labrador coast near the mouth of the Esquimaux River. In the summer of 1864 he joined the party of William Bradford, the marine artist, and explored the coast in a schooner from Henley Harbor to Hopedale. On the return trip he sailed along the Straits of Belle Isle as far west as Caribou Island. Although he devoted himself chiefly to the geology and marine invertebrates, he has recorded many interesting observations on the birds.

M. Abbott Frazar spent the summer of 1884 on the southern Labrador coast, arriving at Esquimaux Point on May 15th. From here he went to Wolf Bay near Cape Whittle, reaching this place June 10th. He devoted himself to the collection and study of the sea birds and their eggs. He returned to Esquimaux Point the first week in September and left there for home a week later.

Dr. Robert Bell in the summer of 1884, in the course of the Canadian geological survey, skirted the coast of Labrador from the Straits of Belle Isle to Cape Chidley. The expedition entered Hudson Bay and proceeded as far as York Factory, returning by the same route. He gives a nominal list of the birds observed.

William Palmer and Frederic A. Lucas, in July and August, 1887, visited the southern coast of Labrador between Black Bay and Mingan Islands in the United States fish commission schooner *Grampus*.

In the summer of 1891, between July 13th and September 7th, an expedition organized by Bowdoin college explored the coast from Red Bay to Hopedale. Two of the party pushed up Hamilton Inlet about 300 miles. The expedition brought back ninety-five specimens representing thirty-two species. These were studied and the results published in a paper by Arthur H. Norton, in May, 1901.

Between 1892 and 1895, the interior of Labrador was explored by the Canadian geological survey under the leadership of A. P. Low and the birds were studied and reported on.

In 1892 and in 1897, J. D. Sornborger spent some months at Nachvak. He has not yet published the results of his studies there.

In the summer of 1900, July 13th to September 26th, Henry B. Bigelow accompanied the Brown-Harvard expedition which studied the Labrador coast from Belle Isle to Nachvak. He spent a month from August 13th to September 11th at Port Manvers.

The latest published ornithological report referring to Labrador is by the Rev. C. W. G. Eifrig entitled: "Ornithological results of the Canadian '*Neptune*' expedition to Hudson Bay and northward, 1903-1904." This report is based on specimens and notes furnished by A. P. Low and A. Halkelt of the expedition. Still more recently the Rev. Mr. Eifrig has published a few more notes on the same subject and Low's report on the *Neptune* expedition has just appeared (Low, '06).

BIRD AND EGG DESTRUCTION.

Before the arrival of the white man, the Indian, the Eskimo, the fox, and the polar bear levied contributions on the multitudes of birds nesting along the coast. These contributions of eggs and young were comparatively small in amount and probably had little effect on the numbers of the birds. In the day of Cartwright more systematic efforts were made, yet the number of eggs taken was still comparatively small. Thus on June 16, 1776, he records: "After breakfast I went in a skiff with two of the people to Swallow and Middle Islands; we killed nine eider ducks, one black-duck, and a gull, and gathered five hundred and six eggs. Five hands went after dinner to Beaver and Speckled Islands; they killed nine ducks and gathered five hundred eggs; and the skiff which I sent out yesterday returned this morning with twelve ducks, a lord [*♂ Histrionicus histrionicus*], and seven hundred and twenty-six eggs."

On July 6, 1776: "Proceeded to Egg Rock where they killed six ducks and two pigeons, and gathered two hundred and fifty eggs. This is the fourth time that this rock has been robbed this year, and we have taken in all, about a thousand eggs off it, although it is not above a hundred and fifty yards long, and fifteen broad." And again on June 18, 1786, he took from the Duck Islands "eighteen eider ducks and above a thousand eggs." On June 17, 1777, a female polar bear and cub were shot on Ledge Island and he says: "On examining the paunches of the bears they found them well filled with eggs. I had often heretofore observed that all the nests upon an island had been robbed, and the down pulled out; but I did not know till now how those things had happened."

Audubon, in 1833, was filled with horror and disgust at the destruction that was then going on. The following is from his Labrador "Journal" for June 21, 1833, written at American Harbor:

"We ascertained to-day that a party of four men from Halifax took last spring nearly forty thousand eggs, which they sold at Halifax and other towns at twenty-five cents per dozen, making over \$800; this was done in about two months. Last year upwards of twenty sail were engaged in 'egging'; so some idea may be formed of the birds that are destroyed in this rascally way. The eggers destroy all the eggs that are sat upon, to force the birds to lay again, and by robbing them regularly they lay till nature is exhausted, and few young are

raised. In less than half a century these wonderful nurseries will be entirely destroyed, unless some kind government will interfere to stop the shameful destruction." And again at an island near Cape Whittle on June 28, 1833, Audubon found two eggers gathering the eggs of Murres. "They had collected eight hundred dozen, and expected to get two thousand dozen. The number of broken eggs created a fetid smell on this island, scarcely to be borne."

Among the episodes, published in his "Ornithological biographies," Audubon wrote a highly dramatic one on this subject, entitled, "The eggers of Labrador," parts of which are here quoted. He describes a shallop with a crew of eight men. "There rides the filthy thing! The afternoon is half over. Her crew have thrown their boat overboard; they enter and seat themselves, each with a rusty gun. One of them skulls the skiff towards an island for a century past the breeding place of myriads of Guillemots, which are now to be laid under contribution. At the approach of the vile thieves, clouds of birds rise from the rock and fill the air around, wheeling and screaming over their enemies. Yet thousands remain in an erect posture, each covering its single egg, the hope of both parents. The reports of several muskets loaded with heavy shot are now heard, while several dead and wounded birds fall heavily on the rock or into the water. Instantly all the sitting birds rise and fly off affrighted to their companions above, and hover in dismay over their assassins, who walk forward exultingly, and with their shouts mingling oaths and execrations. Look at them! See how they crush the chick within its shell, how they trample on every egg in their way with their huge and clumsy boots. Onward they go, and when they leave the isle, not an egg that they can find is left entire. The dead birds they collect and carry to their boat. Now they have regained their filthy shallop; they strip the birds by a single jerk of their feathery apparel, while the flesh is yet warm, and throw them on some coals, where in a short time they are broiled. The rum is produced when the guillemots are fit for eating, and after stuffing themselves with this oily fare, and enjoying the pleasure of beastly intoxication, over they tumble on the deck of their crazed craft, where they pass the short hours of night in turbid slumber. . . . The light breeze enables them to reach another harbour a few miles distant, one which, like the last, lies concealed from the ocean by some other rocky isle. Arrived there, they re-act the scene of yesterday, crushing every egg they can find. For a week

each night is passed in drunkenness and brawls, until, having reached the last breeding place on the coast, they return, touch at every isle in succession, shoot as many birds as they need, collect the fresh eggs, and lay in a cargo. . . .

“With a bark nearly half filled with fresh eggs they proceed to the principal rock, that on which they first landed. But what is their surprise when they find others there helping themselves as industriously as they can! In boiling rage they charge their guns, and ply their oars. Landing on the rock, they run up to the Eggers, who, like themselves, are desperadoes. The first question is a discharge of musketry, the answer another. . . .

“The Eggers of Labrador not only rob the birds in this cruel manner, but also the fishermen, whenever they can find an opportunity; and the quarrels they excite are numberless. . . . These people gather all the eider down they can find; yet so inconsiderate are they, that they kill every bird that comes in their way. The eggs of Gulls, Guillemots, and Ducks are searched for with care; and the Puffins and some other birds they massacre in vast numbers for the sake of their feathers. So constant and persevering are their depredations that these species, which, according to the accounts of the few settlers I saw in the country, were exceedingly abundant twenty years ago, have abandoned their ancient breeding places, and removed much farther north in search of peaceful security. Scarcely, in fact, could I procure a young Guillemot before the Eggers had left the coast, nor was it until late in July that I succeeded, after the birds had laid three or four eggs each, instead of one, and when nature having been exhausted, and the season nearly spent, thousands of these birds left the country without having accomplished the purpose for which they had visited it. This war of extermination cannot last many years more. The Eggers themselves will be the first to repent the entire disappearance of the myriads of birds that made the coast of Labrador their summer residence, and unless they follow the persecuted tribes to the northward, they must renounce their trade.”

Dr. H. R. Storer entered in his journal on July 23, 1849, the following interesting note: “In the afternoon I started in the Englishman’s whaleboat with part of his crew for the Egg Islands [near American Harbor]. . . . It was very rough and we had some difficulty in landing. When we did, however, I was amazed at the immense number of birds here breeding — we found in places the eggs so thickly

strewn that some care was necessary to avoid treading upon them — and to procure birds it was only necessary to knock them upon the head as they stumbled past. Tiger [the dog] dug out many Puffins, whose eggs I speedily appropriated, and after I had filled my collecting box I was glad to leave a place where such wholesale murder is daily committed. Although such great quantities of eggs are carried away or destroyed by the eggers, it seems as if the number of birds could hardly have been larger than at present.” He refers to these birds as Murres, Razor-billed Auks, and Puffins.

Again on July 23, 1849, at the Island of Great Mecatine, he says: “In the harbor we had now entered we found one of the Labrador eggers so much talked off — a small schooner from St. John’s, Newfoundland, with a piratical-looking crew. She had just completed her cargo, only twenty hundred dozen eggs! and was to return home the next day.”

In 1884, Mr. M. Abbott Frazar found the sea birds much diminished in numbers owing largely to the “eggers.” To the Halifax eggers he attributed the decrease of only one species, namely, the Murre, and he describes at some length their proceedings. “But,” he goes on to say, “the fishermen should be held responsible for the greatest general destruction. During the fishing season every bay and sheltered place will have its proportion of from one to twenty fishing schooners anchored there for protection. During the week the men are all busy out in their dories fishing, but their Sundays are their own and are generally spent on the islands gathering eggs and shooting birds, and they stop at nothing but shoot everything which flies whether eatable or not, and shoot just for the sport they find in destruction; and as they keep it up during the whole season the poor birds have but a slim show.”

Barnston, writing in 1861, recounts the slaughter of geese of several species by the natives of Hudson and James Bay. Canada, Snow, and Blue Geese gathered in vast numbers at the southern shores of Hudson Bay in both spring and fall; and upon these birds the inhabitants, Indians, whites, and Eskimos, depended for much of their sustenance. Barnston estimated the total yearly kill of geese in southern Hudson Bay at from 74,000 to 80,000, of which about three quarters were taken in the fall of the year. He “would place the Moose Indians as killing, at all seasons, 10,000; Rupert’s River natives, 8,000; Eastmain and to the north, including Esquimaux, 6,000”

which represent roughly the numbers killed by the Labrador natives. Brant are less molested, as they keep farther out from shore.

In Canadian Labrador the laws against shooting the nesting birds and egging are now fairly well enforced, we were told. Our own brief observations on the small piece of Canadian Labrador we saw, would seem to bear this out. On Newfoundland Labrador, which includes a coastal strip extending from Blanc Sablon on the southern coast easterly to Cape Charles, and thence north along the eastern coast, there seems to be no pretence of bird or egg protection.

It is perhaps natural that the fishermen should consider the eggs and young and even the breeding parents as godsend to eke out their scanty larder. Knowing every rock as they do, along the entire coast, they can easily keep in touch with the birds and rob them of their treasures. At Windsor Harbor we saw six young Great Black-backed Gulls cooped in an ancient wreck, for the purpose of fattening for the pan. Unless some penalty can be imposed one cannot expect a man to pass by a nest full of Eider Duck's eggs, or even leave the fat mother unmolested if he can shoot her. Young or molting ducks are easily caught and make very good eating, and are no doubt a delightful change from the usual course of fish. One of the Moravian brethren at Hopedale spoke to us with great gusto of the delights of an omelette made of Eider's eggs. The Eskimos procure, he said, from two to three hundred eggs of all kinds for them every spring.

There is no doubt but that the Eskimo dogs destroy a quantity of eggs and young birds yearly. The dogs are not fed in the summer and must forage for themselves. We judged by their tracks and signs that the dogs explored great regions of the coast and some distance back from it. The eggs and young of Eider Ducks or even of Pipits and other ground-nesting birds must have but little chance to escape detection. The manner in which Pipits and Spotted Sandpipers flew anxiously about when dogs appeared on the scene, seemed to point to the truth of this theory. We saw them fly at the dogs fiercely, almost hitting them in their desire to drive off the intruders. On going ashore from the steamer for a hasty reconnaissance of the bird inhabitants, we soon learned to expect a dearth of ground-nesting birds if Eskimo dogs were about. On this account, at least, the substitution of the reindeer for the Eskimo dog would be of great advantage.

During the migrations, both spring and fall, the "liveyers" take

large toll of the ducks and other water birds. Even gulls are shot for their flesh as well as their feathers. Ptarmigan are sometimes killed in great numbers and are barrelled for winter use. The Eskimo Curlew, that formerly came in vast flocks every autumn to the coast-wise hills of Labrador, is now all but exterminated there. In the annotated list a full discussion of the diminution in numbers of the Eskimo Curlew is given. (See also under Eider for a suggestion as to the preservation of this species as is now done in Norway and Iceland.)

Single-barrel, muzzle-loading guns are the common weapons used and large charges of powder and shot are the custom. We were told that one hundred and twenty-five ducks chiefly Eiders were picked up at one place near Cape Charles last spring after a volley of five guns. Twenty-five more were picked up the next morning. The fishermen, with whom we talked, made no concealment of the fact that they took all the eggs and killed all the birds that they could. They often took their guns with them when they visited their fish traps.

What is to be the result of all this if nothing be done to stop the destruction? There can be only one result, and this is already shown in places. For example, near Battle Harbor where fishermen are plenty sea birds are very scarce and the same holds good for much of the coast, especially in the vicinity of settlements. It is true that in the deep bays and inlets which are deserted in summer by man, and given over to the flies and mosquitoes, a number of water birds breed comparatively unmolested. Many of the water birds, however, such as Murres, Razor-billed Auks, and Puffins will not resort there but prefer the islands.

It is sincerely to be hoped that the wonderful nursery for water birds in Labrador will not be entirely depopulated, but that sufficient protection for the breeding birds will be given and that speedily, lest it be too late.

ANNOTATED LIST.

Colymbus holboellii (Reinh.).

HOLBOELL'S GREBE.

Rare transient visitor.

According to Stearns ('83, p. 17) this grebe is "not rare in spring and fall" on the southern Labrador coast. He also states that it occasionally breeds, but this may be considered somewhat doubtful. He refers to it in one place as the "Whabby" a name given on the Labrador coast to the Red-throated Diver, as he himself recognizes."

Colymbus auritus Linn.

HORNED GREBE.

Rare transient visitor; possibly breeds.

The only definite record for this bird in Labrador is of a specimen taken at Fort George, James Bay, by R. Bell ('83). Turner speaks of having seen a single grebe "in a tidepool at the mouth of the Koksoak River, September 15, 1882" but he was unable to determine whether it was this species or *C. holboellii*.

Gavia imber (Gunn.).

LOON; "LOO."

Common summer resident.

The Loon is well distributed throughout Labrador, although nowhere very abundant. It is found among the lakes of the interior and along the entire coast of the peninsula, north into Hudson Strait, especially in the deeper fiords and inlets.

Cartwright, on his arrival at Cape Charles on July 30, 1770, says: "As none of these people, who were employed in the boats, had ever been in this part of the world before, they were greatly terrified with the continual crying of the loons, believing them to be Indians."

Cartwright records the first Loons in 1775 on April 14th; Audubon speaks of having "witnessed the arrival of some on the coast of Labrador, after they had crossed the Gulf of St. Lawrence, as late as the 20th of June." Various observers agree that they nest exclusively on the borders of the freshwater lakes, large and small, that are so numerous on the mainland. Low and others who have traversed the

peninsula, report the Loon as breeding commonly in the interior, and Macoun records a nest July 25th at Clearwater Lake.

Along the east coast, in the latter part of July we saw Loons frequently flying about in pairs, and on some occasions they were gathered in small flocks of three or four. On July 23, 1906, we saw a flock of six flying past near Makkovik. Mr. Schmitt, one of the Moravian brothers at Nain, told us that the Loon bred in that vicinity early in July.

Gavia arcticus (Linn.).

BLACK-THROATED LOON.

Summer resident, not uncommon in the north, very rare in the south.

Audubon says: "Whilst in Labrador, I saw a few pairs courting on wing, much in the manner of the Red-throated Diver." No nests were found. Stearns says: "Two . . . obtained . . . off the Labrador coast by one of the French priests at Bersimis, one in 1880."

Macoun regards the Black-throated Loon as "occasional on the coast of Labrador but apparently common on the shores of Hudson Bay, where they breed. Male and female and young, nearly full grown, shot on Nottingham Island, Hudson Strait, August 28th, 1884. (*R. Bell*)." Low ('06) found it very common in the northern parts of Hudson Bay where it nests "on islands or along the swampy edges of ponds not far from the coast." Bell also found them on the East Main coast of Hudson Bay. The record by J. M. Macoun that a few breed at Lake Mistassini may be open to question.

Gavia lumme (Gunn.).

RED-THROATED LOON; "WHABBY."

Common summer resident.

Cartwright describes the "Whabby," as "a water-fowl of the diving genus" and he occasionally shot one with his rifle. He probably referred to this species, for it was so called by Stearns, and the name is used at the present day by the natives to designate it.

The Red-throated Diver is a common bird throughout Labrador. Audubon, Verrill, Stearns, Frazar, and Brewster found it breeding in southern Labrador. Low found it breeding commonly on the upper Hamilton and Koksoak Rivers, and it was common along the

shores and islands of Hudson Bay and Hudson Strait. Turner found it breeding plentifully at Ungava. Eifrig found it at Cape Chidley. It nests in tussocks along ponds or on islets and lays two eggs. Bigelow states that it nests by small ponds inland and that it appears on the coast after the young are able to fly. Some individuals may, however, be found there throughout the summer. It begins to breed in southern Labrador early in June and leaves the country when the ice begins to form. At Nain, according to the Rev. Mr. Schmitt it breeds early in July.

We saw only four of these birds in the Straits of Belle Isle near Battle Harbor on the 10th and 12th of July, and five between Double Island and Nain on July 21st. All of these appeared to be adults.

***Fratercula arctica* (Linn.).**

PUFFIN; "PAROQUEET."

Abundant summer resident along the southern and eastern coast.

The Puffin or "Paroquet" as it is universally called in Labrador breeds in colonies on islands along the southern and eastern coasts. Turner says it is not known to enter Hudson Strait. Audubon found fresh eggs on June 28th and young in the nest at Paroquet Island near Bradore on August 12th.

H. R. Storer visited Paroquet Island (near Bradore) on August 18, 1849. He says in his journal: "We found the island completely undermined by the Puffins, every inch of soil and every cranny in the rocks taken possession of. Audubon says that more Puffins breed here than on all the rest of the coast — however that may be we found an immense number as well as of the Razor-bills. Got some birds and a few eggs."

Coues in 1860 met with many thousands of Puffins breeding on the Paroquet Islands in Esquimaux Bay, and found eggs nearly ready to hatch on July 25th. Brewster observed a large colony of many thousands on Paroquet Island near Mingan Harbor.

Stearns says of Puffin at Greenery Island near Blanc Sablon: "There could easily have been a multiple, and not a small one of ten thousand. . . . They make a harsh, rasping sound, not unlike the filing of a saw. . . . Though they appear in large numbers at stated times, they disappear, or rather disperse after breeding, almost as suddenly as they came, yet stragglers do not leave until the harbors are blocked up with ice."

Palmer says: "At the Mingan group these birds breed only on an islet near Mingan or Bald Island, and on the little group of islets to the westward called Perroquet Islands."

Frazar records a large colony—about 1000—nesting at Wolf Island near Cape Whittle. Of the thousand nests, he found twelve with two eggs. Macoun says they breed at Gannet Island.

Norton ('01, p. 142) from an examination of specimens brought back by the Bowdoin college expedition, finds that the Labrador birds "differ perceptibly from the European birds in having the outline of the culmen less convex—descending directly from the base of the culmen to its tip—and in having the eminentia symphysis in relation to the base of the tomia farther back. The bill is heavier in appearance, being relatively shorter and deeper. The mandible is in the average deeper, and the keel of the gonys much thicker." Temminck described the American bird under the name of *Mormon glacialis*. Norton concludes therefore that "it is evident that *glacialis* of Temminck is the American subspecies which if not worthy of recognition, must make his *glacialis* a synonym of *arctica*."

As will be seen by the table, we met with Puffins all along the Labrador coast but especially in the Straits of Belle Isle near Bradore. Here on August 3d, between 5 and 6.30 A. M., we passed within a mile of Paroquet Island going in and out from Bradore. The island is somewhat over an acre in extent, composed of soft red Cambrian sandstone, which is elevated to the height of 20 or 30 feet with a small cliff on the seaward side. Puffins were to be seen flying about the island in large numbers. Many were sitting on the rocks of the shore below the cliffs, others occupied the flat top of the island. The surface of the water all about was dotted with them. Singly and in groups of two or three,—very often the latter number,—and in larger flocks of seven or eight these birds were flying straight away from the island, generally close to the water. Others were returning close to the water or at an elevation of 50 or 60 feet each with a capelin hanging from its bill. There were at least 500 of them, perhaps many more.

As observed from the steamer all along the coast, Puffins generally allowed of close approach. After dipping its head nervously into the water several times, a bird would either fly away with difficulty, splashing along the water some distance in its endeavor to rise above it, or it would flop out its wings and dive, using its wings under water for subaqueous flight. Occasionally the two actions were combined

in rapid succession. Thus a bird would dive to reappear in a few seconds flying, only to flop down and fly below the water again. The red bill and red feet show conspicuously both in flight and in swimming. The gray patches like spectacles about the eyes, the dark ring about the neck, the stout chubby build, small black wings, and black backs are all good field marks.

***Cepphus grylle* (Linn.).**

BLACK GUILLEMOT; "SEA PIGEON"; "PIGEON"; "PITSULAK" (Eskimo).

Abundant summer resident along the entire coast.

The Black Guillemot breeds on rocky islands in deep clefts in the rock where it lays one or two eggs, well protected by their position from the hand of man or the jaws of Eskimo dogs. It apparently prefers the clefts in the ancient metamorphic rocks of the eastern coast to those in the softer sedimentary rocks of the southern coast, although it is common there in localities.

Macoun has eggs from Big Island collected on June 20th, and from Ungava Bay on July 9th. Robert Bell found it everywhere on the Hudson Bay coast.

Cartwright (1792, vol. 1, p. 233) speaking of an Indian fishing for salmon says: "He had the skin of the leg of a sea-pigeon, which is scarlet, fastened on the shank of a cod-hook, tied to a cod-line. This he threw by hand down the stream, and played it in the same manner as we do a fly."

The Eskimo women are said formerly to have cut off the red feet of this bird, withdrawn the leg bones, and then filled the inflated skins with reindeer tallow, to provide a confection.

We found the Black Guillemot one of the commonest and most universally distributed of the waterfowl along the eastern coast, but with the exception of a few near Battle Harbor, we saw only one in the Straits of Belle Isle. On our trip north from Battle Harbor to Nain we counted 464 birds of this species and 563 on the return.

Mr. Schmitt at Nain has found their eggs in the middle of July.

***Cepphus mandtii* (Licht.).**

MANDT'S GUILLEMOT.

Summer resident.

The exact status of this species and its relation to the abundant *C. grylle* are somewhat doubtful. It is generally supposed to be

more northern in its distribution than *grylle* but Frazar ('87, p. 2) obtained a specimen taken on its nest near Cape Whittle in southern Labrador. Turner says it "occurs in Hudson's Strait occasionally only, according to my own observation. Plentiful on the eastern coast of Labrador. Specimens procured at Fort George by Drexler, July 17, 1861." Low ('06) found it "common everywhere in Hudson Bay and in smaller numbers northward."

As there seems to be no way of distinguishing this species from *grylle* in life, we considered all the Black Guillemots we saw as belonging to the latter species.

Uria troile (Linn.).

MURRE; "TURRE."

Common summer resident in southern part, a few winter.

The Murre is still common locally on the south and east coasts of Labrador where it nests in colonies on certain islands. When Audubon visited the southern coast of the peninsula in 1833 he found an immense colony breeding on the Murre Rocks near Great Mecatina Harbor, and he gives an account of the destructive work of the Nova Scotian "egggers" at whose hands the birds were under constant persecution. In 1884, William Brewster recorded a colony at Paroquet Island, near Mingan Harbor, and Stearns speaks of the bird as then abundant and breeding in vast colonies on the islands, especially to the south of Esquimaux River. Frazar, in 1887, found them "common but rapidly diminishing" along the southeast coast. Bigelow, in 1900, found them "fairly common to Hamilton Inlet" and was told of a colony at Eclipse Harbor, slightly farther north.

The form of this species known as *U. ringvia* occurs with the other murrees in the Labrador colonies. Audubon in his "Journal" (p. 372) speaks of drawing a female at American Harbor on June 20, 1833; Norton ('01, p. 146) records two taken at Herring Islands on August 22, 1891; and there is a male in the Bangs collection taken at L'Anse au Loup, on July 1, 1899. Verrill ('62, p. 143) in writing of the birds of Anticosti, estimated that about one half of the Murrees breeding there represented this phase. It is interesting to recall in connection with the supposed specific distinctness of the *ringvia* birds, the statement of S. H. C. Müller ('62) that it "is certainly only a variety of *Uria troile*. I have been an eye-witness that a Ringed and a Common Guillemot have paired themselves together, and besides have seen a *ringvia* feed a young one which a *troile* had under its wing."

Although most of the Murres retire farther south in winter, a moderate number remain in the patches of open water off the southern coast and Low records that in the open water of Hamilton Inlet they were common until January 20th in 1894.

We saw but very few Murres on the Labrador coast, namely, one near Hawke's Harbor on July 16th, and ten near Indian Tickle on July 17th.

***Uria lomvia* (Linn.).**

BRÜNNICH'S MURRE.

Common summer resident, a few winter.

This species occurs with the preceding species in colonies on the south and southeast coasts, but continues farther north into Hudson Strait, where Turner obtained breeding birds. Eifrig ('05, p. 235) also found it common all through this strait and Low ('06) adds that it breeds in great numbers at Cape Wolstenholme, and remains in the open water of Hudson Bay throughout the winter. Coues, in 1860, recorded that great numbers were breeding in early July at Murre Rocks, a few miles north of the harbor of Little Mecattina. He says: "The birds at this date [July 6, 1860] were breeding on the islands by tens of thousands; their number was truly incredible, and yet I was informed that these were rather fewer than usual."

Mr. Schmitt at Nain stated that they bred there early and in the middle of July.

***Alca torda* Linn.**

RAZOR-BILLED AUK; "TINKER"; "TURRE"; "GUDDS" (Stearns).

Common summer resident; a few winter.

The Razor-billed Auk still breeds, in much diminished numbers, however, on the numerous rocky islands that line the southern and eastern Labrador coast. Turner states that it was not observed in Hudson Straits, and we have no records for it on the western coast. Kumlien says it "was seen on many occasions and often in close proximity to the ship from the outer islands of the middle Labrador coast to Frobisher Straits."

Audubon in his "Journal" records the first of this species out of the egg about July 4th. Cartwright records, on February 11, 1779, that "during the whole of the winter season, small holes, like ponds, are kept open on one side or other of most of the outer islands (by the set of the wind) to which these birds resort for food." He occasionally

found them frozen inland or on the ice. Cartwright's definition of "Tinker" is: "A sea fowl. 'Razorbill'—Pennant."

The immense numbers of these birds on the southern coast in Audubon's time are attested in his accounts and have been already referred to under "Bird and egg destruction." Stearns says: "At the Fox Islands, off Kecarpin River they are very abundant.... I noticed them in thousands about several other small islands also, and am informed by the inhabitants that this species was always very abundant about this locality." Unfortunately at the present day the rapacious fishermen have played havoc in their ranks. We saw about two dozen only along the southern coast, but in the vicinity of Battle Harbor not a bird of this species, and scarcely a gull was to be seen. Only the cautious Black Guillemots that hide their eggs in rocky clefts and keep themselves out of gunshot flourished. Between Battle Harbor and Nain fiord north we saw about 84 Razor-billed Auks, and about 47 on our return south. We saw about 25 flying around an island between Holton and Cape Harrison, and about 40 near a high rocky island a little south of Nain. The "thousands" of bygone years are no more!

In flight the birds sway from side to side like all the Alcidae and they generally fly thirty feet or so above the water, not skimming close to it like the Black Guillemot and Puffin. They are distinguished from Murres in flight by their short neck, and from Puffins by their larger size and the absence of the gray patch on the side of the head. As they fly away, they show white on either side of a black median line, while the Puffin shows a continuous black back. Swimming on the water, they sometimes cock their tails at an angle of about 45° . On the rocky ledges they sit bolt upright displaying their white breasts.

Mr. Schmitt at Nain told us they laid their eggs there early and in the middle of July.

[*Plautus impennis* (Linn.). GREAT AUK; "PENGUIN."—Extinct. The last Great Auk seen alive was in 1852. In 1853, the dead body of one was found floating in the waters of Trinity Bay, Newfoundland. Like the Gannet at the present day, it is probable that the Great Auk bred in only a few chosen places, chief of which was Funk Island, lying 32 miles off the northeast coast of Newfoundland, and although the bird may have bred on the Labrador coast we have no evidence of it, either from history or from the presence of egg shells or bones, such as have been found in numbers at Funk Island. However, there is no doubt but that the bird, if not a resident, was formerly a frequent visitor to the Labrador coast.

An erroneous Labrador record was published on the authority of Alfred Lechevallier by Ruthven Deane (*Amer. nat.*, vol. 6, 1872, p. 369) viz: that one was found dead near St. Augustine on the coast of Labrador, in 1870. This was discredited by J. E. Harting (*Zoologist*, ser. 3, vol. 8, 1884, pp. 141, 142).

As all contemporary references to this extinct bird are of great interest, we quote the following from Cartwright's Labrador "Journal," although all the records are at some distance from the Labrador coast (Cartwright, 1792, vol. 1, p. 155). "We were about four leagues from Groais Island [Newfoundland] at sun-set, [August 5, 1771] when we saw a snow standing in for Croque. During a calm in the afternoon, Shuglawina went off in his kyack in pursuit of a penguin; he presently came within a proper distance of the bird, and struck his dart into it; but, as the weapon did not enter a mortal part, the penguin swam and dived so well, that he would have lost both the bird and the dart, had he not driven it near enough the vessel for me to shoot it." "This day [June 10, 1774] we saw the first penguin and several bulls [Dovekies]." This latter was in long. 48°, 42' W., and lat. 51° 45' N., during a voyage from England (Cartwright, 1792, vol. 2, p. 7). His account of Funk Island is classical and prophetic, and was written on July 5, 1785 (Cartwright, 1792, vol. 3, p. 55). "Funk Island is a small flat island-rock about 20 leagues east of the island of Fogo, in the latitude of 50° north. Innumerable flocks of sea-fowl breed upon it every summer; which are of great service to the poor inhabitants of Fogo; who make voyages there to load with birds and eggs. When the water is smooth, they make their shallop fast to the shore, lay their gang-boards from the gunwale of the boat to the rocks, and then drive as many penguins on board, as she will hold; for, the wings of those birds being remarkably short, they cannot fly. But it has been customary of late years, for several crews of men to live all the summer on that island, for the sole purpose of killing birds for the sake of their feathers, the destruction which they have made is incredible. If a stop is not soon put to that practice, the whole breed will be diminished to almost nothing, particularly the penguins; for this is now the only island they have left to breed upon; all others lying so near the shores of Newfoundland, they are continually robbed. The birds which the people bring from thence, they salt and eat, in lieu of salted pork."

It is to be noted that Cartwright says that Funk Island is the only place where the "Penguins" bred. It seems hardly probable that they would have been driven off their breeding places on the Labrador coast in his day if any such existed, and it is equally improbable that he would have failed to find any such or to record them in his valuable "Journal."]

Alle alle (Linn.).

DOVEKIE; "TURRE"; "LITTLE BULL"; "BULL-BIRD"; "ICE-BIRD."

Abundant transient and winter visitor.

Cartwright in his "Journal" (1792, vol. 2, p. iii) says: "Bull. A small sea bird. I believe it is called the ice-bird." This bird breeds north

of Labrador and Audubon was probably misinformed when he states: "The cod-fishers assured me that they frequently breed there." He himself did not see any. Stearns says they are "abundant certain seasons. Occasional all along the coast," and ("Bird life in Labrador"): "From October 15 until the ice sets in, I found these little fellows common." Turner found them "common in Hudson Strait" and on December 19, 1882, a specimen was taken 100 miles up the Koksoak River. "Occurs in myriads along the eastern shore of Labrador. Breeds plentifully in certain localities not visited by me." Low reports that they were very common in Hamilton Inlet till January 20, 1894. Numbers were found frozen in bushes along the edge of open water. More recently, Low ('06) found them not common during winter in Hudson Bay, but rare in the summer. Bigelow saw one on September 18th off Cape Harrison. Mr. Schmitt, the Moravian brother at Nain told us that he not uncommonly saw this species in summer.

We saw none on the Labrador coast, but at Flower's Cove, Newfoundland, across the Straits of Belle Isle, on July 9th, a bird that was crippled by the loss of one foot swam up to the steamer's side and was captured by the mate with a bucket. The specimen (coll. C. W. Townsend, no. 1204) is a female in much worn summer plumage. Its crippled condition undoubtedly accounted for its presence so far south at this season. Its occurrence on the coast in winter is of course determined by the ice or rather by the presence of open water. If there is no open water, water birds are not found.

Megalestris skua (Brünn.).

SKUA; "SEA-HEN."

Accidental visitor.

There is but one record for this species on the Labrador coast. Turner (in Packard, '91, p. 438) states that one was "seen near the vessel, sitting in the water off the north side of the Strait of Belle Isle, June 22, 1882." Low ('06) speaks of having seen this bird in the eastern part of Hudson Strait.

Stercorarius pomarinus (Temm.).

POMARINE JAEGER; "Bo's'n."

Common summer visitor; probably breeds in northern part.

Audubon saw some Pomarine Jaegers "not far from shore" at

about forty miles from Little Mecattina, and in early August noted twenty or thirty in Bradore Harbor during a heavy gale. Stearns records a specimen from near the mouth of the Esquimaux River, Palmer saw a few in the Straits of Belle Isle, and Kumlien found them abundant from this point to Hudson Strait. It is not unlikely that this and the following species will be found to breed in northern Labrador.

Jaegers occur off shore in some numbers along the Labrador coast in summer. More often we found them in pairs or less frequently in small scattered groups of from four to seven or ten. The first birds seen on our trip were off Cape Harrison on July 19, 1906, and after that we noted them almost daily until our return south to Battle Harbor at the end of July. A number were in the black phase. We saw none in the Straits of Belle Isle.

The Jaegers were readily distinguished by their easy gull-like flight with frequently a short sail on set wings which curved sharply down. They were constantly chasing one another, as well as the gulls and even the shearwaters.

***Stercorarius parasiticus* (Linn.).**

PARASITIC JAEGER.

Common summer visitor; perhaps breeds in northern part.

This species occurs along the coast with the preceding in summer and like it, is not known to breed in Labrador. It appears to be less common, however, than the Pomarine Jaeger. We saw several birds whose smaller size seemed to indicate that they were *parasiticus* while on our way along the east coast, and Coues, Brewster, and Bigelow also mention it as observed by them off the southern and eastern shores.

***Stercorarius longicaudus* Vieill.**

LONG-TAILED JAEGER.

Rare summer resident.

Off the Labrador coast this bird appears to be less common than the preceding two species in summer, but is known to breed in the northern part of the peninsula. Coues ('61) noted a few at sea on the south coast in July, and Brewster saw one July 20, 1881, near Min-

gan Harbor. In Ungava Bay, in the northern part of the peninsula, Turner ('85, p. 252) obtained a specimen in the early part of July and saw several other birds, and Macoun ('00, p. 30) records an egg of this species from George River, Ungava, taken by J. Ford, in 1896. Two other eggs, thought to be those of the Long-tailed Jaeger, were obtained from the Eskimo at Cape Chidley, Ungava, in 1903, by Eifrig ('05, p. 235). We saw nothing of this bird during our stay on the coast.

***Pagophila alba* (Gunn.).**

IVORY GULL; "ICE PARTRIDGE."

Common winter visitor.

Audubon says: "Old and young [Kittiwakes] leave the coast of Labrador at the first appearance of winter, or when the Ivory Gull reaches that country. This, however, I know only from hearsay, having received the information from a settler at Bras d'Or, who has lived here many years, and . . . was in the habit of . . . shooting the Ivory Gull when it arrived over his harbour in the month of December." Low reports that one was shot at Rigolet in winter, and that the bird was seen in late December at Northwest River. Macoun says that it was seen by Low on Hudson Bay near Great Whale River in the spring and winter and Low ('06) adds that "occasional birds of this species are seen in the early summer among the heavy ice on the Atlantic coast of Labrador and in Hudson Strait."

Dr. Mumford, Mr. Frank Lewis, and others at Battle Harbor told us of shooting "Ice Partridges" which came with the ice and seals in November or December. They stay for about two weeks or a month and then depart, not to be seen again for a year. At times they are very abundant and even fly about the houses. These birds are shot for food and are often obtained in the following manner: about a gallon of seals' blood is poured on the ice near the rocks, and as the birds hover about they are easily shot. Some of the birds in their eagerness to obtain the blood dash themselves with such force against the ice as to kill themselves.

We obtained from the Eskimos at Hopedale the skin of an immature Ivory Gull shot the previous winter at that place. On showing the skin to our informants at Battle Harbor, they all agreed it was their "Ice Partridge."

Rissa tridactyla (Linn.).

KITTIWAKE; "TICKLER."

Abundant summer resident.

The Kittiwake is abundant during the summer all along the southern and eastern coasts of Labrador. Turner says it is rare in Hudson Strait but records one seen over 100 miles up the Koksoak River on October 13, 1883. He says it "breeds plentifully on northern portions of the Atlantic coast of Labrador." The birds seen in the Straits of Belle Isle and along the southern coast probably come from Anticosti for Verrill and Brewster found them breeding there in great numbers. A. P. Low found them common on the edge of the ice at Great Whale Bay but "not very common in the northern part of Hudson Bay."

We saw Kittiwakes in large numbers along the coast, but saw no breeding places. It seems probable that most of the birds on the eastern coast breed on the lofty cliffs to the north of Nain. On July 10th we saw a flock of 200 near Blanc Sablon; on July 16th, 6 birds near Frenchman's Isle; on July 17th, 5 near Pack's Harbor; on July 18th, a flock of 5000 at the mouth of Hamilton Inlet; on July 19th to 21st from Holton to Nain we saw 466 Kittiwakes. On the return we saw between 2000 and 3000 Kittiwakes between Nain and Pack's Harbor; none between Pack's Harbor and Battle Harbor; about 2500 in the Straits of Belle Isle. The large flocks were of exceeding grace and beauty. At Hamilton Inlet thousands of Kittiwakes covered the water, and, as we steamed on, they rose in bodies of five hundred or more and whirled about like gusts of snow driven by the wind, their pure white plumage lit up by the rays of the setting sun. Silent for the most part, they occasionally emitted cries of *kae kae*, or *ka-ake* and at times one could imagine the syllables of *kittiwake*. On our return trip we ran into a flock of nearly the same size near Cape Harrison. The appearance of a snowstorm here was more perfect, for there was a thick fog bank on the edge of which the Kittiwakes played. The sun shining on the birds before the fog shut them out was very striking. They were occasionally plunging for capelins, at times disappearing entirely under water with a splash. One could often be seen flying with a fish hanging by one end from its bill. A Jaeger suddenly appeared on the scene and the twisting and turning of pursuer and pursued was interesting to see. The Kittiwake finally dropped his prey, and the Jaeger settled on the water to pick it up.

Larus glaucus Brünn.

GLAUCOUS GULL; BURGOMASTER; "WHITE WINTER GULL."

Common summer resident in northern Labrador, rare in southern Labrador; a few winter.

Audubon speaking of the southern coast says: "I found this species on the coast of Labrador in very small numbers, all paired, in the month of July." They were very shy and he found no nests. Coues saw but few though he was told there was a colony at Esquimaux Bay. Packard stated that the bird "breeds plentifully on the eastern and southern coast of Labrador." Frazar said: "Occasionally up to the last of May, I would see one of this species, but saw none later than that. Doubt if it ever breeds where I was" (Cape Whittle). Bigelow found the bird common north of Cape Harrison, and particularly abundant at Port Manvers. Young birds appeared in numbers about the end of August. Macoun says that large numbers bred on the cliffs at Richmond Gulf in July, 1898. Low found it "common throughout the interior; seen May 19th; eggs June 14th."

We first met with the Glaucous Gull several miles up St. Lewis Inlet on July 12th. Here we saw two or three with a flock of about 40 Herring Gulls and 15 Great Black-backed Gulls. When first seen they were standing on a ledge of rocks near the water. On our way north from this point we saw a dozen or more of these birds, and the same number on the return trip. We saw none on the southern coast. A pair appeared to be breeding on Sloop Island off Hopedale. On one high crag rising for some hundreds of feet from the sea, near Nain, we saw at least four pairs of these snowy birds, evidently nesting. In each case, one of the pair seemed to be sitting on the nest where a slight ledge made possible a growth of green plants, while near by stood the mate, basking in the afternoon sunlight. Several times we saw them flying about the ice floes or perched on the shelf of an iceberg. Most of them showed the pearl gray mantle of the adult, while several, presumably immature birds, were of a uniform white with a slight but distinct buffy tint and the plumage showed dirty brownish patches in places. They gave the impression of slightly soiled white birds. Their call note which we heard only on one occasion was a sharp *kū̄k kū̄k*. Mr. Schmitt at Nain had found the eggs of this species from the end of June to the middle of July.

Larus leucopterus Faber.

ICELAND GULL.

Rare transient or winter visitor.

No definite record of the presence of this species in Labrador has been found, but it is doubtless of general occurrence coastwise in the colder months of the year. Reeks states that it is common in autumn and winter from Greenland to Newfoundland. We found on Great Caribou Island the wing feathers of a white gull, the measurements of which correspond closely to those of the Iceland Gull. The bird had evidently been killed during the previous winter (1905-6).

Audubon, in 1833, "was surprised to find but very few on the coast of Labrador, and these did not seem to be breeding," but it is open to considerable doubt whether Audubon was right in identifying the birds that he saw, with this species.

[**Larus kumlieni** Brewst. KUMLIEN'S GULL.— We have no record for this gull but as it is believed to breed in Cumberland Gulf it doubtless is found as a transient visitor along the Labrador shores.]

Larus marinus Linn.

GREAT BLACK-BACKED GULL; "SADDLE-BACK."

Common summer resident.

These fine birds are found breeding along the entire southern and eastern Labrador coasts; on the Hudson Bay side we have no record of them, and the only interior record is that given by Macoun of an egg taken by A. P. Low on the Hamilton River in 1894.

Cartwright refers to the "Saddle-back," and so long ago as 1833, Audubon found that "the parents were so shy and so wary that none could be shot," and the constant persecution of the fishermen has not served to lessen this wariness during the intervening years. Audubon also adds that they "suck other birds' eggs like Crows, Jays, and Ravens." Audubon caught some young as early as June 18th but according to Coues these gulls are said to arrive in the latter part of May, and eggs are found on the south coast in the middle of June. He speaks of finding young birds on July 4th. Stearns, Coues, and Verrill found this gull common along the southern coast and among the Mingan Islands. Frazar was served at breakfast with the eggs of this species by the people with whom he was staying.

We saw about 43 Great Black-backed Gulls on our trip north, generally scattered pairs or single birds about the rocky islands, but on July 12th we saw a flock of about 15 in St. Lewis Inlet. On the return trip from Nain we counted only 25 until we neared Bradore when as many as 200 were seen flying about our vessel. Mr. Schmitt at Nain had found eggs of this species from the end of June to mid-July. At Winsor Harbor on July 22d we saw four young birds about the size of large pigeons caged in the hull of an old stranded boat, where, as we were informed by the fishermen, they were being fattened for the table. They were fed with capelin, which they swallowed whole.

Larus argentatus Brünn.

HERRING GULL.

Common summer resident.

This is the most abundant gull in Labrador and it is more or less common along the entire coast, and about the large lakes and ponds. Verrill and Palmer record it as abundant at the Mingan Islands, nesting on the ground; Turner states that it is "excessively abundant in Hudson Strait," and Macoun says it breeds along the shores of Hudson Bay.

Audubon relates that at the time of his visit, the young birds were caught by the Labrador fishermen and salted down for winter use. The depredations of the fishermen on this and on other seabirds still continue with the result that these birds are much diminished in numbers at the present day.

We saw only single birds and scattered pairs or small flocks on the Labrador coast except on one occasion when we observed about a thousand Herring Gulls on July 18th at the mouth of Hamilton Inlet. Aside from this we counted only 42 Herring Gulls on our trip north along the southern and eastern coasts of Labrador and about 60 on our return trip.

Larus delawarensis Ord.

RING-BILLED GULL.

Uncommon summer resident locally in southern Labrador.

Colonies of this gull have been found breeding in southern Labrador, but very little has been ascertained in a definite way, concerning the distribution of the species on these coasts. Audubon records

that in a large colony of Herring Gulls that were breeding on a rocky island on the southern coast, a small number had the bill marked with a black ring. Presumably these may have been Ring-billed Gulls. Frazar found a few moderate-sized colonies in the vicinity of Cape Whittle, and refers to their frequently changing location owing to their being so often disturbed. Three eggs was the largest number he found in a nest. According to A. P. Low, these gulls nest at Lake Mistassini and in the vicinity of Hamilton Inlet. Coues records three young of the year shot at Henley Harbor, on August 21, 1860, from a flock of gulls. The most northern record is of a young specimen taken by H. B. Bigelow at Port Manvers (lat. 57° N.) on September 6th.

[*Larus canus* Linn. MEW GULL.—The following is from Audubon's Labrador "Journal" under date of June 18, 1833. "John and Co. found an island [near Little Mecattina] with upwards of two hundred nests of the *Larus canus*, all with eggs, but not a young one hatched. The nests were placed on the bare rock; formed of sea-weed, about six inches in diameter within, and a foot without; some were much thicker and larger than others; in many instances only a foot apart, in others a greater distance was found. The eggs are much smaller than those of *Larus marinus*." Elliott Coues adds the following note after *Larus canus*: "Common Gull. This record raises an interesting question, which can hardly be settled satisfactorily. *Larus canus*, the Common Gull of Europe, is given by various authors in Audubon's time, besides himself, as a bird of the Atlantic Coast of North America, from Labrador southward. But it is not known as such to ornithologists of the present day. The American Ornithologists' Union catalogues *L. canus* as merely a straggler in North America, with the query, 'accidental in Labrador?' In his Notes on the Ornithology of Labrador, in Proc. Acad. Nat. Sci. Phila., 1861, p. 246, Dr. Coues gives *L. delawarensis*, the Ring-billed Gull, three specimens of which he procured at Henley Harbor, Aug. 21, 1860. These were birds of the year, and one of them, afterwards sent to England, was identified by Mr. Howard Saunders as *L. canus* (P. Z. S., 1877, p. 178; Cat. B. Brit. Mus., XXV, 1896, p. 281). This would seem to bear out Audubon's Journal; but the 'Common American Gull' of his published works is the one he calls *L. zonorhynchus* (i. e., *L. delawarensis*), and on p. 155 of the Birds of Am., 8vo ed., he gives the very incident here narrated in his Journal, as pertaining to the latter species. The probabilities are that, notwithstanding Dr. Coues' finding of the supposed *L. canus* in Labrador, the whole Audubonian record really belongs to *L. delawarensis*.—E. C.]

Larus philadelphia (Ord).

BONAPARTE'S GULL.

Common transient autumnal visitor in south.

There is no evidence to show that this species breeds in the Labrador peninsula. The migrants appear to come from the westward of Hudson Bay and in the fall of the year are found in large flocks along the south coast and the east coast south of Hamilton Inlet (Bigelow, '02). Palmer in 1887 found the immature birds "abundant at the mouth of Mingan River, together with a limited number of old birds."

Xema sabinii (Sab.).

SABINE'S GULL.

Rare transient visitor.

Kumlien says: "On the 6th of October, 1877, on the passage from the Kikkerton Islands northward, a pair of these birds kept close to the stern of the schooner for many miles." Turner reports that "a single male was obtained in the middle of July, 1884, near the mouth of George's River, flowing into the eastern side of Ungava Bay." Robert Bell records that one was shot at Port Burwell in September, 1884. In the Bang's collection is a specimen (no. 9740) taken at Okkak in 1894.

Sterna caspia Pallas.

CASPIAN TERN.

Very rare summer resident in southern Labrador.

Audubon in his Labrador "Journal" mentions finding on an island near Little Mecattina on July 18, 1833, the eggs of the Cayenne Tern, and "a single pair of these remarkable birds, which could not be approached." Later, on August 16th, in St. George's Bay, Newfoundland, he notes "several pairs of Cayenne Terns on their way south. The Cayenne or Royal Tern, *Sterna maxima*, is more southern in its distribution than the Caspian Tern, which was unknown to Audubon and could easily have been mistaken by him for the Cayenne Tern. Coues states under this latter bird: "Audubon's Labrador record belongs to *S. caspia*."

More recently Frazar has found this bird in Labrador and he reports as follows: "This majestic Tern is but a sparing resident along the Labrador Coast, as I met with but one colony, which was located about twenty miles to the westward of Cape Whittle, where I found a colony of some two hundred pair mixed with a larger settlement of Ring-billed, and a few Herring Gulls. Their nests were built upon

the ground, and generally contained two eggs, never more." One of Frazar's specimens from Cape Whittle, dated June 24, 1884, is no. 1164, Bangs collection.

[*Sterna forsteri* Nutt. FORSTER'S TERN.—There is an erroneous record by Low ('96, p. 323) who says it is "common throughout the interior; seen June 13, Hamilton River, June 1st Mistassini." We are informed in a letter from Macoun under date of March 13, 1906, that Low referred to the Common Tern.]

Sterna hirundo Linn.

COMMON TERN; WILSON'S TERN; "STEERINE."

Common summer resident in southern Labrador.

Audubon observed it in the "Straits of Belle Isle, May 18, 1833, in great abundance about American Harbor, Labrador. Breeds here." Coues says: "A good many seen at Rigolet but not elsewhere." Macoun records it "common from Moose Factory to Richmond Gulf, Hudson Bay (*Spreadborough*)."

It must of course be remembered that careful scrutiny is necessary to distinguish this bird from the Arctic Tern and it is possible some of the records, especially the northern ones, refer to the latter bird.

Sterna paradisaea Brünn.

ARCTIC TERN.

Common summer resident locally.

Audubon found this bird breeding at American Harbor in June, 1833, and old and young about Bras d'Or harbor on August 5th. Frazar found a few colonies on the small grassy islands near Cape Whittle. Stearns speaks of them as only a spring and fall migrant. Turner says they "breed plentifully on islets in Ungava Bay," and Eifrig says they were taken at Cape Chidley in June, 1903. Macoun records eggs from Green Island, Sandwich Bay. Weiz says they breed at Okkak.

We saw but one tern while we were in Labrador and this was at Bradore on August 3d.

Sterna antillarum (Less.).

LEAST TERN.

Extirpated.

The only record for this tern whose breeding range has rapidly

retreated southward, is that of Audubon ('38, p. 175) who says: "It is to be supposed that it is not met with beyond the western shores of Labrador, where, however, I found it in abundance and breeding, in the beginning of June, 1833," and he obtained specimens.

Fulmarus glacialis (Linn.).

FULMAR.

Common visitor.

Fulmars are very abundant along the north and east coasts of Labrador at times. They are usually met with off the Straits of Belle Isle, northward, in summer, and according to Audubon are "regularly observed in spring moving northward in files" opposite the entrance of these Straits. They appear to enter the Straits rarely, if at all, but keep out to sea, and approach land during storms only. In our voyage along the east coast, we observed them but once, when on July 19th, during a violent northeast storm, a few came about the vessel off Cape Harrison. In all about eight birds were seen, of which but two were in the light phase. The species is not known to breed in Labrador.

Puffinus gravis (O'Reilly).

GREATER SHEARWATER; "HAG"; "HAGDON."

Abundant summer visitor.

This bird, breeding in the Antarctic summer, avoids winter altogether by spending the non-breeding season in the summer of the northern seas. It is found at sea off the southern and eastern coasts of Labrador, rarely approaching very close to land except in storms and fog. In one of the frequent storms of this coast we were so fortunate as to run into a great flock of these birds on July 15th not far from Spear Harbor. As we steamed along we first passed single birds, then groups of from 50 to 300, and later great flocks of 1000. It was impossible to count them but we roughly estimated from five to ten thousand shearwaters. Among them were only three Sooty Shearwaters. It was a rare sight and had a fitting setting in a background of rough and broken granitic rocks, a stormy sea, and scudding drifts of fog. With outstretched and almost motionless wings slightly decurved, the shearwaters glided over the waves, following them so closely, that we momentarily expected to see the birds disappear in the foam. Again they swing about in graceful curves,

turning from side to side, so that sometimes one, sometimes the other wing almost touches the great surges. All their motions on the wing are graceful in the extreme and devoid of any appearance of effort. Again they ride the water lightly in companies of a hundred, or swim rapidly over the surface to seize some delectable morsel, holding their heads up, their wings partly spread. In rising from the water, the birds show less grace, and a large flock makes the water foam as they try to push away the surface, paddling vigorously with alternate feet.

[**Puffinus puffinus** (Brünn.). MANX SHEARWATER.—As this European bird is exceedingly rare on the North Atlantic coast, and as Kumlien makes no mention of the abundant Greater Shearwater, this author's note that the Manx Shearwater is "abundant from Belle Isle to Resolution Island" can be disregarded. There is no other mention of this bird for Labrador.]

Puffinus fuliginosus (Strick.).

SOOTY SHEARWATER; "BLACK HAG" OR "HAGDON."

Common summer visitor.

This shearwater generally accompanies the Greater Shearwater but in much smaller numbers. Palmer found them common in the Straits of Belle Isle, and saw a few as far west as the Mingan Islands. Coues and Bigelow note them on the eastern coast in company with the other species.

We saw one in the Straits of Belle Isle and three in an immense flock of over 5000 of the greater species not far from Spear Harbor.

[**Puffinus tenuirostris** (Temm.). SLENDER-BILLED SHEARWATER.—R. Bell records the capture of one at Port Burwell on September 28, 1884. This was an error. The bird was in fact a Fulmar (J. Macoun *in litteris*, March 13, 1906).]

[**Puffinus kuhlii** (Boie). MEDITERRANEAN SHEARWATER.—Kumlien records this as "common from Belle Isle to Grinnell Bay," evidently a mistake. See note under *P. puffinus*.]

Procellaria pelagica Linn.

STORMY PETREL.

Rare summer visitor.

It is possible that after the breeding season, this species wanders to the American shores more often than is supposed. It is well known to occur off the Newfoundland coasts, but the statement of Reeks

(see Macoun, '00, p. 62) that it breeds on the islands about Newfoundland seems quite without foundation. The only specific record for the Stormy Petrel in Labrador is that of Turner who obtained one in the "middle of July, 1882," twenty miles up the Koksoak River, in Ungava, and saw another seventy miles up that river, October 9, 1882. Possibly these birds had been blown inland by a storm and become lost.

***Oceanodroma leucorhoa* (Vieill.).**

LEACH'S PETREL.

Common summer resident in south.

Bryant saw this species frequently off the southern coast but found it breeding only on Gull Island near Romaine, and on a small island between Mecattina and Bradore. Bigelow speaks of finding it commonly. He says: "We visited several islets where the turf was riddled with their holes and the air reeked with their sharp musky odor." North of Hamilton Inlet Bigelow says it is very rare.

We saw none on the Labrador coast, although a petrel (possibly of this species) was described to us, that flew aboard the vessel one night in southern Labrador, and was captured but afterwards released. Dr. Grenfell told us it breeds at Peter's Island near Henley Harbor.

***Oceanites oceanicus* (Kuhl).**

WILSON'S PETREL.

Common summer visitor.

Apparently this species does not often reach the offshore waters of Labrador in its summer wanderings from the southern hemisphere. Coues and Brewster both observed it in fair numbers in the Gulf of St. Lawrence in July, but the former states that he saw none off the Labrador coast. Turner records that he saw it off the "Atlantic coast of Labrador, . . . mostly in spring and fall," but it is not clear that he distinguished carefully between this and Leach's Petrel. No other observers report it. On Battle Island, we found the wings of a Wilson's Petrel, August 1st, but saw no living birds.

***Sula bassana* (Linn).**

GANNET.

Uncommon summer resident, locally, on southern coast.

Formerly the Gannet was a common bird on the southern coast of

Labrador, although its breeding area appears to have been confined to one locality. Constant persecution has greatly diminished its ranks, although it still breeds in the same places.

Audubon said that the Gannet arrived at Chateau Bay about the middle of May, but he did not find any breeding birds. Bryant, in 1860, said that the Gannet was known to breed at only three places in the Gulf of St. Lawrence, namely, at Bird Rock, at an island near Gaspé,¹ "and at Gannet Rocks near Mingan, which will soon be deserted by those birds in consequence of the depredations of the fishermen."

Coues, in 1860, refers to Gannet Rocks as follows: "On the first of July our proximity to the celebrated Gannet Rocks was clearly indicated by the numbers of these birds seen flying in every direction, engaged in seeking for food, which consists principally or wholly of fish. . . . Again, on the 11th of September, on our return we saw many Gannets; but though on both these occasions we passed within fifty miles or less of the rocks, I was denied the pleasure of observing the birds at their great breeding place."

Brewster, in 1881, visited this same colony near Mingan which he states bred on Paroquet Island. He says it "was despoiled the day before we landed by Indians, who did their work so thoroughly that only empty nests and occasional broken eggs remained to mark the spot where less than a week before we had seen hundreds of birds sitting in fancied security."

Frazar, in 1884, states that with the exception of this colony, there were "no other colonies at least as far as the Straits of Belle Isle." Lucas, in 1887, visited this colony and found "a few Gannets. . . . in spite of the incessant persecution of the Indians who regularly make a clean sweep there."

Near Indian Tickle just south of Hamilton Inlet, is an island which bears the name of Gannet Island. Neither Cartwright nor Coues who were familiar with this region, mentions any Gannets there. We saw a few Gannets on the southern side of the Straits of Belle Isle, but none on the Labrador coast.

***Phalacrocorax carbo* (Linn.).**

CORMORANT.

Common summer resident locally in south.

¹ Bryant inadvertently located this colony at Percé Rock instead of the nearby Bonaventure Island.

On the south coast, colonies of Cormorants still breed, but we find no definite evidence that they do so north of Belle Isle. Audubon, in 1833, found a large colony on the cliffs near Wapatigun, and on the nearby Shag Rocks, off the St. Mary Islands, thousands of both species nested.

In 1860, Bryant visited this colony and estimated the number of breeding cormorants to be from four to five thousand. He thought there were about four Common Cormorants to one of the Double-crested species.

In May, 1881, Stearns visited these Shag Rocks. He speaks of thousands of cormorants. The two species were equally represented. "At a distance these rocks present the appearance of being covered with snow, but a nearer approach shows that this is a covering of guano from the continual droppings of the birds."

What was probably the remnant of this colony is described by Frazar who visited Labrador in 1884. He found about 200 pairs of both species together, and states that many nests contained large young on June 19th, "which went to prove what the natives said, that they commenced to build long before the snows of winter had disappeared." He also mentions finding a set of six eggs in one nest. Another colony was recorded by Stearns at the Mecattina Islands. Weiz ('66) lists the Cormorant as found at Okkak, but no evidence is adduced to prove this. It is certainly rare or even accidental on the northeast coast.

***Phalacrocorax dilophus* (Swains.).**

DOUBLE-CRESTED CORMORANT; "WAPATIGUN."

Common summer resident locally in south.

In general the remarks under the preceding species apply also to this. Both are found nesting together in colonies at certain chosen spots on the southern coast of Labrador. Audubon found large colonies on islands near Great Mecattina and at Cormorant Island, near Cape Whittle. Wapatigun Island, near the latter point, appears to be named after this bird. Frazar who visited this same region in 1884 speaks of the Cape Whittle colony as consisting of but 200 or so pairs of birds, of both species; he also mentions a colony found June 2d, about 75 miles east of Esquimaux Point. We have been unable to find any good evidence to show that this species breeds on

the east coast, but Coues, in 1860, was informed of a colony at Sloop Harbor, just north of Hamilton Inlet. After the breeding season the birds scatter and may be found in small numbers along the southern coast.

Merganser americanus (Cass.).

AMERICAN MERGANSER; GOOSANDER.

Rare summer resident in the interior.

This merganser is not so fond of salt water as its red-breasted cousin, and is rarely seen on the coast. Stearns, however, says that he has "seen one . . . taken near Fort Island" and Palmer says that "one was seen at Mingan." Low says: "Common throughout the interior; seen May 28th; eggs June 25th." He gives precisely the same record for *M. serrator*. Macoun says that "Mr. A. P. Low found it breeding on the shores of small lakes in Labrador; eggs were taken with the bird from under small spruces on the upper part of the Hamilton River, in the summer of 1896." As the habit of the American Merganser is to nest in a hole in a tree or cliff it seems reasonable to suppose that *M. serrator* was confused with this species.

Merganser serrator (Linn.).

RED-BREASTED MERGANSER; "SHELLDRAKE"; "SHELL-BIRD."

Common summer resident along the coast and in the interior; more common transient visitor.

Cartwright and Stearns both speak of this bird as the "Shell-bird." It is widely distributed both in the interior and along the seacoast. It breeds preferably on the shores of freshwater ponds and rivers. Coues found nearly fresh eggs on July 4th, and Low records eggs for June 25th.

At Mary Harbor on St. Lewis Inlet we observed several of these birds on July 12th and 13th flying back and forth from the salt water to the pond-like expansions of the Mary River. It is probable that they were breeding in the latter locality. They emitted a harsh quacking croak as they flew. These were the only birds of this species we saw in Labrador except one near Cartwright.

Lophodytes cucullatus (Linn.).

HOODED MERGANSER.

Rare summer resident.

Stearns says it is "rather rare but occasional." Macoun says that a pair was seen by Spreadborough in the interior of Labrador on July 16, 1896.

Anas boschas Linn.

MALLARD.

Rare transient visitor.

According to Cooke the Mallard breeds west of Hudson Bay and also in Greenland. In Labrador it is found only as a migrant. Packard mentions specimens from Davis Inlet and from the mouth of the Koksoak River and says it is "rare at Fort Chimo. Common on eastern and more plentiful on southeast coast." Coues saw a pair offered for sale by one of the natives.

Anas obscura Gmel.

BLACK DUCK.

Common summer resident.

It is of course impossible to separate most of the records of *obscura* from those of *rubripes*, a subspecies established by Brewster in 1902. Examples of both forms have been obtained from Labrador. Here a general account of the species in Labrador will be given without attempting to subdivide it.

The Black Duck breeds throughout Labrador, more commonly away from the coast, on the shores of inland ponds. Cartwright shot one in Sandwich Bay, containing a hard egg on May 28, 1778. Mr. Schmitt at Nain told us they bred in that vicinity from the end of June to mid-July.

Audubon found them incubating in Labrador June 17, 1833, and with young on July 5th. Brewster said they bred along the coast near Mingan. Frazar found a few breeding on the islands near Cape Whittle. Palmer found them abundant at Mingan. Coues says it "breeds very plentifully" but is more common away from the coast. Half-grown young were seen with parents on August 1st. Low found them not common throughout the interior. They were seen May 1st on the upper Hamilton River and eggs found on May 23d. Spreadborough found them breeding in northern Labrador on July 7, 1896, but not commonly. Packard says it is "not common in Hudson Strait. Doubtless breeds there." Wallace in the "Lure of the Labrador Wild" speaks of seeing Black Ducks as late as October

2d north of Hamilton Inlet. Again he says ('07, p. 434): "From the day we entered the George River [Sept. 14, 1905] until we were well down the stream they were plentiful. . . . This is apparently a breeding ground for them."

We obtained the skin of a typical *obscura* from the Eskimos at Hopedale. The bird was undoubtedly killed in that vicinity. We have presented the skin to Mr. Brewster in whose collection it now is. Brewster ('02, p. 187) says that a female in the Bangs collection taken in the Straits of Belle Isle on April 25, 1900, must be referred to *obscura*. "Another, belonging to Mr. J. D. Sornborger, which, with her brood of ducklings, was captured on July 8, 1896, at Okkak, on the north-eastern coast of Labrador, is intermediate in certain respects between *obscura* and *rubripes*, but on the whole perhaps nearer the former."

Anas obscura rubripes Brewst.

RED-LEGGED BLACK DUCK.

Common summer resident.

See remarks under *obscura*. There is only one specimen of this form from Labrador, namely, one taken at Ungava by Turner on July 1, 1884. One from Okkak is intermediate as already noted. A good deal can be said in favor of the view that Red-legged Black Ducks are merely old Black Ducks (see Townsend, "Birds of Essex County," pp. 127, 128).

Mareca americana (Gmel.).

BALDPATE; AMERICAN WIDGEON.

Rare transient visitor in southern Labrador.

Stearns says it occurs "as far as Natashquan; said to occur inland at Esquimaux River" and, "a single female of this species was shot in Old Fort Bay on November 27, 1880. . . . Said to breed." Packard says: "Mr. John Ford assures me it is common in Hamilton Inlet and on the southeast shore of Labrador." "Widgeon" is a name so loosely applied to various species of ducks that the last record at least is of very doubtful value.

Nettion crecca (Linn.).

EUROPEAN TEAL.

Accidental visitor.

This is a straggler from the Old World, for which there are two Labrador records. The first is that of Coues ('61, p. 238) who states that he "was so fortunate as to procure a well characterized specimen" on July 23, 1860. He does not mention the locality. Norton ('01) records the skin of a male which was obtained in 1891 by the Bowdoin college expedition, near Eskimo Island, Hamilton Inlet. It was purchased of a half-breed Eskimo woman by whom it had been prepared.

***Nettion carolinensis* (Gmel.).**

GREEN-WINGED TEAL.

Rare summer resident.

Cooke states that the "regular breeding range extends from New Brunswick, through northeastern Quebec and Newfoundland, to Ungava Bay, Labrador, latitude 58°". Turner records that "fully-fledged young females were obtained at Fort Chimo late in July." Coues saw a skin in a collection at Rigolet. Frazar mentions two specimens which had been killed "early in September" from a bunch of six, near Esquimaux Point. Further than these there are no exact records for Labrador.

***Querquedula discors* (Linn.).**

BLUE-WINGED TEAL.

Very rare summer resident in northern Labrador.

The only record is that of Macoun ('00, p. 83) who states that a pair, evidently breeding, was found July 11, 1896, by Spreadborough, at Clearwater Lake in latitude 56° N. The principal summer home of this teal is the interior of North America between the Rocky Mountains and the Great Lakes (Cooke).

***Spatula clypeata* (Linn.).**

SHOVELER.

Accidental visitor.

We are enabled to add this species to the list of Labrador birds on the evidence of Dr. W. T. Grenfell who stated that he shot two specimens near Cartwright in September, 1901.

***Dafila acuta* (Linn.).**

PINTAIL.

Very rare transient visitor.

The only records are the following. Turner records a female young of the year taken at the mouth of the Koksoak River and an adult at Davis Inlet. Presumably both are fall records. Stearns records the capture of one specimen of a pair seen at Old Fort Island, and adds that another was taken near the same place a short time before.

We obtained the skin of a young male prepared by the Eskimos at Hopedale and saw the skin of another. Both birds were believed to have been taken the previous autumn.

[***Aix sponsa*** (Linn.). WOOD DUCK.—Stearns ('83) states that this duck is "not rare in the interior" of Labrador, but it seems doubtful if this report is based on good evidence.]

***Aythya americana* (Eyt.).**

REDHEAD.

Very rare transient visitor.

This duck is probably a rare fall migrant to the coast of Labrador. None have been reported by those who have penetrated to the interior of the peninsula. The only definite record is that of Stearns who saw one on September 23, 1880, at Baie des Roches on the southern coast. Cooke ('06, p. 42) says: "An individual was taken in the fall in southeastern Labrador." He perhaps refers to this record.

***Aythya marila* (Linn.).**

GREATER SCAUP DUCK.

Rare summer resident in northwestern Labrador.

According to Macoun ('00), a few were observed by Spreadborough in James Bay and in the interior of Labrador in 1896, and a set of six eggs was taken June 16, 1896, near Whale River on James Bay. The only record for the east coast is that of a specimen shot near Nain in October, 1899 (Bigelow, '02). Dr. R. Bell gives the Lesser Scaup Duck as breeding in large numbers on Nottingham Isle in Hudson Strait and at Churchill and York Factory in Hudson Bay, but as Macoun says, it is more probable that the birds were *A. marila*.

[*Aythya affinis* (Eyt.). LESSER SCAUP DUCK.—Dr. Robert Bell's ('83) record of the breeding of this species in Hudson Strait probably refers to *A. marila*.]

***Clangula clangula americana* (Bonap.).**

AMERICAN GOLDEN-EYE; "WHISTLER"; "WHISTLE-DIVER."

Common summer resident in central and southern parts.

The Golden-eye breeds along the large streams and lakes of the interior of Labrador from the upper Hamilton River, southward. Farther north, Spreadborough saw none in the barren regions of the upper part of the peninsula in crossing from Whale River to Fort Chimo. Doubtless the birds are confined in summer to the timbered portions of stream beds owing to their choice of hollow trees as nesting sites. Low saw them at Lake Mistassini on May 3d, and found a few flocks in June on the upper Hamilton River. Brewster saw a large brood of young accompanied by what was probably a female of this species, near the mouth of Mingan River, July 20th. The Bowdoin college expedition, on August 9, 1891, came upon a female and brood of young supposed to be of this species, some 200 miles up Grand River, Hamilton Inlet. They were originally reported as Labrador Ducks! In autumn the Golden-eye is common on the coast and doubtless remains until driven south by the closing of the bays.

***Clangula islandica* (Gmel.).**

BARROW'S GOLDEN-EYE.

Rare transient visitor and summer resident.

According to Turner who obtained specimens from Davis Inlet, it is "plentiful" in fall on the coast. Stearns records it from the south coast where it is said to occur in Esquimaux River in mild winters. Cooke states that "a few breed in eastern Canada from the Gulf of Saint Lawrence (Point des Monts) to northern Labrador (Davis Inlet)." Merriam states that it breeds at Point des Monts (outside of Labrador) but we have not found any record of breeding birds in Labrador except this record of Cooke.

***Charitonetta albeola* (Linn.).**

BUFFLE-HEAD; "SLEEPY DIVER."

Rare transient visitor.

Stearns says this duck is a common migrant in the fall on the south

coast. No other observers have recorded it. Cooke says: "Undoubtedly some pairs breed in Quebec and southern Labrador, though it is as yet unrecorded from there. . . . except as a rather rare visitant."

Harelda hyemalis (Linn.).

OLD-SQUAW; "HOUNDS"; "COC-CAW-WEE."

Common summer resident.

Besides spending the summer commonly, especially in the northern parts, the Old-squaw is an abundant transient visitor, and a few winter in patches of open water off the southern coast, if such occur.

Cartwright, in 1770, describes this species as follows: "HOUND. A water-fowl rather larger than a teal. These birds migrate to the north in large flocks in the spring, and as they fly, make a continual noise, than which nothing can more resemble the cry of a pack of beagles when in chase. When, and how they return to the south again I am unacquainted." Gurdon Trumbull in "Names and portraits of Birds" published in 1888, gives as one of the synonyms of this bird, "HOUND, a name applied in Newfoundland (the musical gabble of a flock being likened to the cry of hounds)." We found the name "Hound" still in common use along the Labrador coast.

Cartwright gives May 16th at Sandwich Bay for the date of arrival of Old-squaws in 1776, which means simply that open water appeared about that time.

On July 28, 1833, Audubon found several broods of Old-squaws on a large freshwater lake at Bradore, but it is doubtful if many breed there at the present day owing to constant persecution by the natives. Frazar ('87) observed it at Cape Whittle as a migrant only, and saw none after the first week of June. In Ungava, Turner found it breeding, Weiz ('66) gives it as breeding at Okkak, and a pair was seen in June, 1896, by Spreadborough, at Cape Jones, Hudson Bay. Low ('06) found it very common in the northern parts of Hudson Bay; it breeds "on the islands of the ponds."

Mr. Schmitt at Nain told us that the Old-squaw breeds in that vicinity early in July.

Histrionicus histrionicus (Linn.).

HARLEQUIN DUCK; "LORD AND LADY."

Common summer resident in northern, common transient visitor in southern Labrador.

The quaint definitions of Cartwright are worth quoting: "LADY, A water-fowl of the duck genus, and the hen of the lord." "LORD. A water-fowl of the teal kind." These names are still used on the coast for this species.

On July 29, 1770, he enters in his journal: "I shot four eider ducks and seven lords and ladies; the latter being in full moult could not fly, but they were very fat." This was at St. Peter's Islands in the Straits of Belle Isle.

According to Turner, the Harlequin Duck is abundant in Hudson Strait and "certainly breeds at Ungava." It is uncommon on the southern coast and its presence there in winter is probably dependent upon the extent of open water, for Brewster ('84) says that it occurs at Anticosti in winter only, where "hundreds sometimes collect in the tide openings." Stearns found it "rather rare" on the south coast in spring and autumn, but a few immature birds and an occasional adult were found in summer by Frazar about the outer islands and exposed ledges near Cape Whittle. These, however, were not breeding birds. We saw but a single bird on our trip, an immature specimen swimming among the cakes of pack ice near Makkovik. As the vessel passed, it dove several times opening its wings at it went under. In swimming it cocked its tail slightly up.

Mr. Schmitt at Nain said that some were to be seen in that vicinity all summer while Mr. Frank Lewis at Battle Harbor was familiar with the bird during the spring and fall migrations only.

[*Camptolaimus labradorius* (Gmel.). LABRADOR DUCK; PIED DUCK.—Extinct. Very little has come down to us concerning the former presence of this now extinct species in Labrador. Cartwright in his journal probably refers to it when he speaks of having killed "only a pied-duck" on October 26, 1770, at Charles Harbor; and again, under date of July 16, 1771, when he writes: "Killed a whabby [Red-throated Loon] with my rifle, and a pied duck with shot." Again on October 6, 1773: "One of my people killed a pair of pied-birds." Audubon, when he visited southern Labrador in 1833, did not see the Pied Duck, but in his "Journal," writing from Bras d' Or, July 28, 1833, speaks of it as breeding "on the top of low bushes, but the season is so far advanced we have not found its nest." In his "Ornithological Biography" he also states that nests, said to be those of Labrador Ducks, were pointed out to his son on this same date, at Blanc Sablon. When Coues visited southern Labrador in 1860 he was "informed that, though it was very rarely seen in the summer, it [was] not an uncommon bird in Labrador during the fall." This statement is thought by Dutcher (Auk, vol. 11, p. 10) to indicate a fall migration northward, though it may quite as well mean

that birds from the interior or even from the heads of inlets moved to the coast in the fall migration southward. Probably, however, the birds were nearly extirpated by the time of Coues' visit, and his testimony is based merely on hearsay. Dutcher also corrects the statement that a female with a brood of young was observed by members of the Bowdoin college expedition in 1891, 200 miles up the Grand River, Hamilton Inlet. The birds were probably Golden-eyes.

There appear to be but three Labrador specimens of this duck extant, according to Dutcher; one in the American museum of natural history, an adult male (no. 3739) from the Wied collection; and a pair formerly in the possession of Sir Joseph Banks that came from Labrador (Latham, Gen. hist. birds, 1804, vol. 10, p. 318.)]

***Somateria mollissima borealis* (Brehm).**

GREENLAND EIDER.

Abundant summer resident on the eastern coast and on the west coast of Richmond Gulf, north of Hamilton Inlet; transient visitor in the southern part.

Packard says: "Abundant in Hudson Strait. Eggs, young, . . . adults procured in Ungava Bay." It is probably the common breeding Eider on the Hudson Bay coast north of latitude 56°. Bigelow says it is abundant north of Hamilton Inlet on the east coast, breeding near most of the fiords.

At Nain, Mr. Schmitt told us that the eiders bred during the latter part of June and early in July.

Dr. Grenfell tells us that north of Nain, where the summer or "green" fishermen rarely penetrate on account of the ice, the Eider, undoubtedly the Greenland Eider, still breeds in great numbers. On the Metik Islands between three and four thousand Eider's eggs were taken off by a man in 1905. He stated that the man could hardly find a place large enough, free from eggs, to place his sleeping bag. Dr. Grenfell is anxious to employ a keeper for these islands, and says that the down alone would pay his salary. He fears, and with reason, that the advent of steam trawlers would allow the fishermen to penetrate to these regions, and that the birds would be doomed.

***Somateria dresseri* Sharpe.**

AMERICAN EIDER; "SEA DUCK"; "LAYING DUCK"; "SHOREYER";
"ESKIMO DUCK"; "MORGAC" (Indian); "METIK" (Eskimo).

Common summer resident along the south coast and south of Hamil-

ton Inlet on the east coast and of Richmond Gulf on the west coast (Macoun, '00).

The northward range of this species is not fully known. Low ('06) found it "common everywhere in Hudson Bay and to the northward." He speaks of shooting a number of this species and the Greenland Eider at Cape Fullerton at the northwest part of Hudson Bay.

The American Eider has been much more persecuted than the Greenland Eider as its home country is visited every summer by the large fishing fleet, bearing 30,000 egg-loving individuals, from Newfoundland. Besides these most of the 3,000 permanent inhabitants of Labrador live in its breeding range.

The presence of Eider Ducks or indeed of any water bird in winter is dependent upon the presence of open water. This is clearly shown by Cartwright in his "Journal." Stearns also speaks of it. In the Straits of Belle Isle with its strong tides, there are generally a few open places even in midwinter and here Eider Ducks are almost always to be found.

The date of arrival of the Eider Duck in the spring depends on the season. Cartwright, at Cape Charles, notes March 7, 1771, two pairs of ducks; March 23d, "a flock of ducks looking for water"; April 26th, "thousands of ducks flying north." In 1775 he notes that the spring is about three weeks late and he saw the first ducks (King Eiders) at Cape Charles on April 7th.

Stearns says of the American Eiders: "They remain in this region [near Red Bay] until the last waters of the bay freeze over, and are then seen no more until spring returns and thaws the ice, when they appear in company with the King Eider. . . . which are also found in immense flocks, but distinct from, that is not mingling with the others." Again he says: "The King Eider came first, then the Common Eider. . . . The birds at first fly in large flocks often thousands in a flock, and generally the different species do not mingle." (This was about the first week in April.) In another place Stearns speaks of shooting Eiders in the spring from the edge of the ice first on April 12th. The birds are called by whistling and there are often thousands in a flock. Early in October snow and ice appear on the eastern coast. Thus Cartwright, writing at Sandwich Bay on October 11, 1778, says: "Winter begins to appear; the Mealy Mountains have put on their new liveries, and every downfall whitens the heads of the high hills. The deer [caribou] are beating out to the barren

headlands on the sea coast; the Eider, and King-ducks are hastening southward; and the grouse [Ptarmigan] are chattering in great flocks upon the hills,"—a vivid picture, truly! At the same place on October 8, 1783, he writes: "The first flight of Eiders went up the river this evening. As those birds trim the shore along in the flight-times, great numbers of flocks go up this river as high as Friend's Point, and sometimes higher, but on finding their mistake, they commonly return again along the opposite side, . . . in general they keep over salt water."

On May 10, 1771, near Chateau Bay, he records the following interesting observation: "I measured the flight of the eider ducks by the following method: viz. on arriving off Duck Island, six miles distant from Henley Tickle, I caused the people to lie on their oars; and when I saw the flash of the guns, which were fired at a flock of ducks as they passed through, I observed by my watch how long they were in flying abreast of us. The result of above a dozen observations ascertained the rate to be ninety miles an hour." Bryant in 1860 says of the Eider: "Though constantly harassed by the fishermen and inhabitants, [it] still breeds in great abundance along the whole extent of the north shore." On Greenlet Island in the Straits of Belle Isle he found over 60 nests. On this island was a stone hut used "for the purpose of concealing the hunters in the spring, at which time they shoot immense numbers of the Eider or Sea Ducks, as they call them."

We have already given in a previous chapter, accounts of the taking of Eider's eggs on the Labrador coast. The earliest date given by Cartwright for the eggs of this duck is June 3, 1778. On June 12, 1779, he writes: "But the ducks had only scraped out their nests yet." This was in Sandwich Bay. Some of his men, however, found a few duck's eggs the same day.

Eiders are shot in great numbers by the "liveyers" as the ducks pour along the coast both spring and fall. They are less wary than the King Eider and their tameness or stupidity leads to their destruction.

Our experience with Eiders in Labrador was as follows. In the Straits of Belle Isle we saw none on the Labrador side except near Battle Harbor, and about 30 on the Newfoundland coast. In three days, July 11th to 13th, about Battle Harbor and St. Lewis Sound we saw 71 Eiders, some of which we may have counted twice. We saw one in Hamilton Inlet, 38 near Hopedale, and 32 between Double

Island and Nain. On the return we saw much fewer birds, but in the same localities. It is evident that the constant persecution of these birds by the liveyers, summer fishermen, and Eskimo dogs has sadly thinned their ranks. It is also apparent that many of them when driven off from the exposed coast and outer islands continue to breed in lessened numbers in the deep bays and inlets which are shunned by man in summer on account of the flies and mosquitoes.

The Eiders we saw were generally in small flocks, some in male others in female plumage, although once or twice we saw single birds, and occasionally we saw small flocks all in one plumage. Thus we saw a flock of 4 adult males on July 9th; a flock of 18 adult males and 6 brown birds on July 11th; a flock of 7 adult males and 4 brown birds on July 13th; a flock of 11 adult males and 11 brown birds on July 21st. On July 21st off Nain we saw 2 adult males, one apparently adult female and five young, three of whom fluttered along the water seemingly unable to fly. These were probably the Greenland species. The next day we saw four Eiders fly by, the first two brown birds, the third an adult male, and the fourth was evidently an immature male showing white only in the middle of the back and part of the wings. These observations are interesting as it is generally stated that as soon as the eggs are laid the male Eiders flock by themselves at sea. We discovered a field mark of considerable value in recognizing these birds, and with its help we could distinguish this species even when the light was so poor we could not make out the colors. We refer to the characteristic manner during flight in which the bill is held, pointing obliquely downward at a considerable angle, instead of straight out in front as is the case with most ducks.

The Eiders generally flew in Indian file close to the water. The strikingly marked adult males with their black bellies and white breasts, necks, and backs are easily recognized. The female is a great brownish bird, looking very dark in some lights, and entirely lacks distinctive markings. In the sunlight the back of the female looks a lighter brown than the belly. The wings are of the same color as the back. The young looked a lighter brown than their mothers.

In Norway and Iceland the very similar European Eider is thoroughly protected and has become very tame, nesting freely close to the houses. The eggs and down are taken under careful supervision and are the source of considerable profit. The birds are

allowed to rear a few young so that their numbers are not diminished. If the people of Labrador could be made to understand this, a new industry would arise and the Eider instead of being a vanishing race, would again populate the numerous islands along the southern coasts of the peninsula. At present the people are actively engaged in killing "the goose that lays the golden egg."

[*Somateria v-nigra* Gray. PACIFIC EIDER.—Stearns referred to this species as abundant in large flocks. It is of course conceivable that a few western birds may have strayed to the eastern coast and that Stearns shot one or two out of a flock of Common Eiders. The following note on the subject by Leonhard Stejneger ('85) is interesting: "Mr. W. A. Stearns, in a paper entitled 'Notes on the Natural History of Labrador,' published in the 'Proceedings of the U. S. National Museum,' Vol. VI, 1883, says (p. 121) that the *Somateria v-nigra*, the Pacific Eider, is 'abundant in large flocks in spring,' and that he himself 'obtained specimens that had the decided 'V-shaped black mark' on the chin.' The statement has been doubted, and critics have considered it a mild expression when saying that it 'seems to require confirmation.' It is not my intention to defend Mr. Stearns' identification, but having found a notice which seems to point in the same direction, I think it safer to postpone a final decision in the matter. The notice to which I allude is found in Degland and Gerbe's 'Ornithologie Européenne (Paris, 1867), II, p. 557, where, under the head of *Somateria mollissima*, Mr. Gerbe writes: 'Three or four specimens received from Newfoundland had under the throat two black lines similar to those of *Somateria spectabilis*, but of a color less deep. May they not be mules between the latter and the female Eider? Mr. de Sélvs-Longchamps, in his second note on the hybrids of the Anatidae, in quoting this example, remarks that Prince Ch. Bonaparte and Mr. W. Jardine consider these specimens as a distinct species, which they name *Somateria v-nigrum*, but that there is occasion to wait for new observations before deciding.'"]

Somateria spectabilis (Linn.).

KING EIDER; "KING DUCK"; "KING-BIRD"; "PASSING DUCK."

Abundant transient visitor; not uncommon summer resident in the north.

The King Eider breeds from Nachvak north. The greater portion breed on the west coast of Greenland. Stearns refers to a breeding record of this species on an island opposite Mingan, an exceptional and rather doubtful southern instance. Macoun records the taking of a set of three eggs of this species at Nachvak by G. Ford in 1897. Low mentions the shooting of one in the interior at Lake Mistassini.

The King Eider is generally an earlier arrival in the spring than the

American Eider. They both fly in flocks, and as a rule the two species do not mingle (Stearns). Under date of April 7, 1775, at Charles Harbor, Cartwright records: "Also one flock of King-ducks, which are the first I have heard of this year." It is found in winter if there is any open water.

We saw only two King Eiders on the Labrador coast. The first was an adult male on the shore at the mouth of St. Louis Inlet on July 13th. As we approached in a sail-boat he waddled down to the water and swam off. His light color and cocked up tail suggested a gull, but with glasses we could make out the characteristic spectacle side-face markings and projection over the bill. In flight he showed dark on his back posteriorly and light wings. In diving he opened his wings for subaqueous flight. The second bird, apparently in immature plumage, was seen between Fanny's Harbor and Nain.

Oidemia americana Swains.

AMERICAN SCOTER; "BUTTER-BILL COOT."

Common transient visitor, rare summer resident.

As all the Scoters are frequently found in summer sometimes in considerable numbers far south of their breeding grounds even to the Massachusetts and Rhode Island coast, it is never safe to record the breeding range of these birds except by the discovery of their nests, eggs, or ducklings. Cooke ('06, p. 59) says of this bird: "The lack of information in regard to the breeding of this species in northeastern North America is surprising. The species was described from the west shore of Hudson Bay, and occurs on the coasts of Labrador and the Gulf of St. Lawrence, but there seems to be no record of the discovery of the nest in this region. Nonbreeding birds are known to occur far south of the breeding grounds. The species is unknown from the whole vast interior of North America, between Hudson Bay on the east and the Yukon Valley on the west, and south almost to the United States boundary; it ranges north to Ungava Bay, Hudson Strait, and Fort Churchill, Hudson Bay, and apparently does not breed south of Newfoundland, nor in Labrador south of about latitude 52°; so that it follows by exclusion that the multitudes of these ducks that winter from the Gulf of St. Lawrence south along the Atlantic coast must breed in northern Ungava.

"The American scoter is much more abundant on the Pacific coast,

and breeds from the Aleutians and Near Island north to Kotzebue Sound and northeastern Asia."

The breeding records of this species that we have been able to obtain for Labrador are few and only one is positive. This is Audubon's record of a nest and eight eggs nearly ready to hatch found a mile inland from the southern coast on July 11, 1833. He says: "A few pairs breed on the shores of Labrador, but the great body of these birds proceed further north." Stearns says it is "abundant. Breeds by inland ponds"; but he gives no evidence of finding the nests. Frazar found a few, apparently not breeding, in summer about Cape Whittle. Coues did not meet with it. Low says it is common as a migrant on the Hamilton River from May 26th into June. Packard records that it is "obtained at the mouth of the Koksoak River. Abundant in Hudson Strait and eastern shore of Labrador, where it is reported to breed sparingly."

The absence of more records of the breeding of this scoter in Labrador would lead one to think that the majority of the migrants on the eastern North American coast nest farther north. The bird is common during the migrations along the Massachusetts coast but less common than the other scoters.

Our experience with the three species of scoters in Labrador was as follows: we saw a flock of 82 scoters of all three species in St. Lewis Inlet near Mary Harbor on July 12th. Of these the White-winged species was by far the most abundant, the American appeared to be next in abundance, the Surf Scoter least. On the same day we saw a flock of 14 American Scoters, and another flock of 30 White-winged Scoters. Near Francis Harbor on July 15th we saw 4 scoters, apparently Surf Scoters. On July 16th near Hawke's Harbor we saw 31 White-winged Scoters, 1 American Scoter, and 8 scoters whose species we could not determine. On July 17th near Cartwright we saw 4 White-winged Scoters and 2 doubtful American Scoters. On the 18th at the mouth of Hamilton Inlet we saw 42 White-winged and 8 apparently Surf Scoters. On the 21st near Hopedale we saw a flock of over 500 mostly White-winged Scoters, although the other species were represented. Near Fanny's Harbor on the same day we saw two flocks of White-winged Scoters each containing about 30 birds. On the return trip we saw very few scoters.

Oidemia deglandi Bonap.

WHITE-WINGED SCOTER; "BRASS-WING DIVER."

Abundant summer resident.

This scoter is abundant in summer as well as in the migrations along the Labrador coast. Audubon found great numbers on the southern Labrador coast in mid-June, but he says that few stay to breed. He found nests June 1st to 10th and young several days old on July 28th. Stearns on the other hand, who found them common in the fall and rare in the spring, says they are not known to breed. Frazar says they are common in summer about Cape Whittle but apparently none breed. Palmer saw several flocks at the Mingan Islands. Coues and Bigelow report them as abundant on the eastern coast and Spreadborough found them abundant from Moose Factory to Richmond Gulf in June, 1896. Audubon's record is the only definite one we can find of the breeding of this scoter.

Cooke ('06, p. 61) says: "This scoter breeds along the north shore of the Gulf of St. Lawrence and north to Nachvak Bay, Labrador, about latitude 59°." Like most sea birds the scoters are not found in Labrador in winter owing to the absence of open water, except occasionally on the southern coast and near the outer islands.

We found this the most abundant of the three scoters as already recorded.

Oidemia perspicillata (Linn.).

SURF SCOTER; "BOTTLE-NOSED DIVER."

Abundant summer resident.

From the time of Cartwright to the present day this bird has been called "Bottle-nosed Diver" by the Labrador men. It is an abundant migrant all along the Labrador coast. It is common there in summer and breeds. Audubon saw "millions" in southern Labrador passing north. A few stayed and he found one nest near Little Mecattina. Neither Stearns nor Frazar found it breeding. Coues found it abundant along the eastern coast "where many breed." Packard says it is "rare in Hudson Strait. Abundant on the eastern coast of Labrador, where it breeds sparingly." Spreadborough found it common from Cape Jones to Richmond Gulf in June, 1896.

Our experience with this bird is related under *O. americana*.

Erismatura jamaicensis (Gmel.).

RUDDY DUCK.

Uncommon summer resident on eastern shore of Hudson Bay.

Macoun states that it breeds "sparingly from Richmond Gulf to Ungava." A female with four young about a week old was taken on June 21, 1896, in northern Labrador by Spreadborough.

[**Chen hyperborea** (Pall.). LESSER SNOW GOOSE.—The record of Eifrig ('05, p. 237): "They breed mostly on islands along the eastern shores of Hudson Bay," refers probably to *nivalis*; *hyperborea* is more western in its distribution than *nivalis*.]

Chen hyperborea nivalis (Forst.).

GREATER SNOW GOOSE; "WAVY"; "KANGOK" (Eskimo).

Very rare summer resident, but common transient visitor on the eastern shores of Hudson Bay.

Packard says: "Occasionally a straggler is seen in the western portion and along the western end of Hudson Strait. Eskimo from the eastern shore of Hudson Bay reported it to be very plentiful during the migration." Macoun records a set of 3 eggs from one of the Twin Islands, James Bay, in 1898, from A. P. Low. Weiz records it from Okkak, but the record is to be doubted. Cooke says that the Greater Snow Goose "is enormously abundant on both the eastern and western shores of Hudson Bay during spring migration."

Chen caerulescens (Linn.).

BLUE GOOSE; "BLUE WAVY."

Common transient visitor on east coast of Hudson Bay; said to breed in northern Labrador.

Nothing is known in a definite way of the breeding of this species in Labrador. George Barnston ('61), formerly of the Hudson's Bay company, has given an account of the geese as observed by him in the southern portion of Hudson Bay. He states that the Blue Geese are found mostly on the east (Labrador) side of Hudson Bay in both spring and fall migrations, and comparatively few are to be observed on the southwest shores. Rae (Can. rec. sci., vol. 3, 1888, p. 136) corroborates this statement.

In regard to the breeding of this goose, he adds that "according to Indian report, a great breeding-ground for the blue wavy is the country lying in the interior of the north-east point of Labrador, Cape Dudley Digges. Extensive swamps and impassable bogs prevail there; and the geese incubate on the more solid and the driest tufts dispersed over the morass, safe from the approach of man. . . . In May it frequents only James's Bay and the Eastmain of Labrador, and it is probably the case that its hatching-ground is on the north-west extremity of that peninsula, and the opposite and scarcely-known coast of Hudson's Straits. In the autumn their bands, increased six or sevenfold by the young, return by the same route."

The region indicated as the breeding ground of the Blue Goose is still, as then, a *terra incognita*. The slaughter of geese of this and other species by the natives of the Hudson Bay shores is mentioned under the heading "Bird and egg destruction."

***Anser albifrons gambeli* (Hartl.).**

AMERICAN WHITE-FRONTED GOOSE.

Accidental visitor.

The only record is that of Bigelow ('02, p. 28): an adult male received from Dr. Heltasche, shot near Hopedale, May, 1900.

***Branta canadensis* (Linn.).**

CANADA GOOSE; "NEKLEK" (Eskimo).

Common summer resident; April 30 to November 25.

The Canada Goose once bred abundantly throughout the length and breadth of Labrador but the depredations of the fishermen along the seacoast have caused it to desert this vulnerable region, and it is now found breeding in the interior only or in the remote north and west. Along the southern and the southern part of the eastern coast it occurs now only as a migrant, but in Cartwright's day it was a common summer resident in these regions. Cartwright has a good deal to say about this species, and we have obtained from his journal a number of interesting records. As to date of arrival he records on May 4, 1775, at Charles Harbor: "I saw a goose this afternoon for the first time. The spring is about three weeks later than usual." In 1776, he records the first geese on April 30th. In 1779, the first geese flew over on May 1st, and in 1786, on May 8th.

As to nesting, the following records are of interest: "Found [May 28, 1771, near Cape Charles] the trap which was lost on Saturday last, with a good, fat goose in it, full of hard eggs." On July 10, 1771, he found a nest of this species with seven eggs in it at Mary Harbor off St. Lewis Inlet. On May 30, 1776, in Sandwich Bay he found two eggs. On June 25, 1774, he caught five young but a few days old. On July 24, 1774, at Cutter Harbor he caught a young goose alive, and saw three broods. He speaks of two geese *in full molt* being killed on July 20, 1775. At Sandwich Bay on July 8, 1776, he records: "The geese are beginning to moult," and again on July 25, 1776: "In the course of our walk to Dove' Point, we gathered above a hundred excellent goose quills, which were lately shed, this being the moulting season." On August 26, 1777, he says: "Great numbers of geese have appeared lately, as they are getting the use of their wings very fast now." On November 15, 1775, he saw several geese and on November 21, 1774. On November 25, 1777, he says: "I had an opportunity of shooting at a goose today, although it is very late in the year for those birds to be seen."

Over half a century later Audubon found the Canada Goose still a common summer resident in southern Labrador, breeding in every suitable marshy place. He speaks of seeing several hundred young geese at Great Mecattina killed before they were able to fly and salted for winter use. Their gizzards contained fir leaves. In 1860, Coues did not see any until the second week in August, when several small flocks appeared flying southward. Stearns ('83, p. 13) observed it only as a migrant. Frazar ('87, p. 20) found none breeding in southern Labrador, but heard that one or two pairs bred on a large island off Wolf Bay. Low noted it at Mistassini on May 2d. Weiz ('66, p. 268) records that it breeds at Okkak. Bigelow ('02, p. 28) says it is abundant in the spring and common in fall after August 1st. Palmer ('90, p. 259) records: "A small flock was seen flying southward on August 11 at Mingan." Packard states it breeds along Hudson Strait near the mouth of the George River. Low says it breeds in the marshes throughout the northern interior and he gives the average date of arrival for the Northwest River as May 10th. Macoun says that two eggs were taken on Whale River, Ungava Bay, on June 11, 1896. On July 27, 1905, Wallace came upon two adult and three young geese near Lake Nippisish. The "old ones had just passed through molting, and their new wing feathers were not long enough

to bear them, and the young ones though nearly full grown, had not yet learned to fly."

On August 18, 1902, Hubbard and Wallace, on their unsuccessful attempt to find Lake Michikamau observed two young geese unable to fly. On September 24th, they saw geese flying south.

Mr. Goldsby, one of the Moravians at Hopedale, told us that this goose breeds in the inlets near the Mission and lays its eggs about the first week in June, or even during the last of May. At this time the men go on dog sledges to obtain the eggs. In the middle and latter part of July the Moravians catch the young geese and fatten them for Christmas.

***Branta bernicla glaucogastra* (Brehm).**

WHITE-BELLIED BRANT.

Rare transient visitor.

The Brant breeds far to the north of Labrador and is apparently but rarely seen there during the migrations. Stearns observed it on the southern coast. Turner saw it only in the spring at Fort Chimo. Low says it is very rare in the interior; a sick bird was killed at Lake Mistassini on July 2d. Bigelow says it is reported as very rare. He obtained a specimen from Dr. Grenfell that was shot at Nain in October, 1899. In Hudson Bay also Bell states that it is very rare.

[*Branta leucopsis* (Bechst.). BARNACLE GOOSE.—This is recorded by Weiz at Okkak, but the record is open to doubt for Weiz reported many Old World birds there, perhaps because he was more familiar with their names. There is no reason, however, why a straggler should not be taken there, and Cooke ('06, p. 82) accepts the record.]

***Olor columbianus* (Ord).**

WHISTLING SWAN.

Very rare summer resident in the northwest part.

Packard says it is "an occasional straggler over the southern portions only of Labrador." Weiz records it from Okkak. Robert Bell says: "The Whistling Swan breeds near Churchill and on the islands towards the eastern side of Hudson's Bay. Their skins constitute an article of trade, but only a small number of them are collected annually."

Cooke states that "a few nest on Southampton and Nottingham Islands in Hudson Bay." The latter island is not far from the north-west coast of Labrador.

[**Olor buccinator** (Rich.). TRUMPETER SWAN.—The statement of Robert Bell ('83) that this species breeds on the islands off the East Main coast of Hudson Bay, doubtless applies instead to *O. columbianus*.]

Botaurus lentiginosus (Montag.).

AMERICAN BITTERN.

Very rare summer visitor.

In all probability the Bittern occasionally breeds on the southwest shores of Labrador as it is well known to do on Anticosti, but no positive evidence on this point has as yet been obtained. Coues found a wing in the possession of a hunter in southern Labrador, and Bigelow speaks of seeing two or three birds at Cape St. Francis, north of St. Lewis Sound. Robert Bell states that this species "is found on both sides of Hudson's Bay."

Ardea herodias Linn.

GREAT BLUE HERON.

Accidental visitor.

This species is a straggler in Labrador, for which we have found but a single record, *viz.*, that of one seen near Whitefish Lake, Fort Chimo, Ungava, by John Saunders of the Hudson's Bay company, in the summer of 1880 (Turner, '85).

Florida caerulea (Linn.).

LITTLE BLUE HERON.

Accidental visitor.

"On May 23, 1900, a Little Blue Heron . . . was brought to Mr. Ernest Doane at Lance au Loup, Labrador, by a man who had shot it there a day or two before. . . . The specimen (No. 4433, Coll. of E. A. & O. Bangs) is a young male just emerging from the white plum-

age, having some blue feathers in the wings, a few long blue black plumes, and the back, neck and head much intermixed with grayish" (Bangs, '00a).

***Nycticorax nycticorax naevius* (Bodd.).**

BLACK-CROWNED NIGHT HERON.

Accidental visitor.

This heron is also a straggler to southern Labrador and has been once recorded from Lake Mistassini, August 6, 1885 (Macoun, '00).

***Rallus virginianus* Linn.**

VIRGINIA RAIL.

Accidental visitor.

The claim of this species to a place among the birds of Labrador rests on none too substantial a basis. The only record is that of Turner ('85) who writes that "a single specimen was taken in Hamilton Inlet a few years ago and submitted to M. Fortesque, esq. (of the Hudson Bay Company), who identified it beyond question."

***Porzana carolina* (Linn.).**

SORA.

Accidental visitor.

Dr. W. T. Grenfell has added this species to the list of Labrador birds, as he secured a specimen in Sandwich Bay in 1898. The skin was sent to Cambridge, England.

***Fulica americana* Gmel.**

AMERICAN COOT.

Accidental visitor.

That this species occasionally strays north into Labrador is attested by Turner who records that a specimen was shot about 1880 on a lake near Nain, and was described so accurately to him by several persons who saw the stuffed bird that he was enabled to identify it "beyond

possibility of doubt." Dr. W. T. Grenfell informed us that he took a specimen of this species at Longstretch, Sandwich Bay, in August, 1899.

***Crymophilus fulicarius* (Linn.).**

RED PHALAROPE.

Common transient visitor off the coast; rare summer resident.

Packard says that this bird is abundant north of Davis Inlet, and that it breeds sparingly in Hudson Strait. One specimen was obtained in Ungava Bay. Coues shot three at sea off Belle Isle from a flock of six. Frazar obtained a fine adult male killed at Cape Whittle on June 25th. Bigelow saw it several times in small flocks off shore.

We saw three on July 20th off Long Tickle. We also obtained the skin of a fine bird in full adult plumage at Hopedale from the Eskimos. Mr. Schmitt at Nain told us that this species as well as the Northern Phalarope breeds in that vicinity.

***Phalaropus lobatus* (Linn.).**

NORTHERN PHALAROPE; "GALE-BIRD."

Common summer resident.

The Northern Phalarope breeds along the entire Labrador coast in freshwater marshes on the borders of ponds and lakes. Audubon found them and their nests on the southern coast. Low saw some on the upper Hamilton River on June 13th. Bigelow states that they breed "in almost all the suitable marshes; occasionally very abundant off shore." Turner found them common and breeding on the islets in Ungava Bay, and Spreadborough found about a dozen on a small pond on an island in James Bay on June 16, 1896.

We had an interesting experience with this species at Great Caribou Island, on July 27th. At the small freshwater pools only a few yards in extent, partly grown up with sphagnum and sedges we saw four of these birds and shot two, both males. It was evident from their actions that young were concealed in the sedges, as they flew about us uttering a harsh scolding twitter, shortened occasionally to a *quip*. This twitter sounded at times sweet like that of a Barn Swallow. At

times a gentle little note like *ee-ep* was emitted. The birds frequently swam about gracefully, nodding their heads like doves. Once or twice they stopped to scratch their heads with a foot, again they would circle about quickly on the water, or they would swim forward and continue their progression by walking up onto a rock. Among the reeds they skilfully threaded their way, bending low their heads.

[*Philohela minor* (Gmel.). AMERICAN WOODCOCK.—Turner ('85) was assured by several persons "that they had killed Woodcocks on the eastern portions of the Labrador shore" but we know of no more positive evidence that the bird actually occurs there.]

Gallinago delicata (Ord).

WILSON'S SNIPE.

Rare summer resident.

Wilson's Snipe probably breeds sparingly in suitable localities throughout Labrador. Turner "heard and saw a male making the peculiar noise with its wings, in early June, over a swamp to the north of Davidson's Lake, a few miles from Fort Chimo," Ungava. Low also saw and heard a male performing its flight song at Lake Petisikapau, on the Hamilton River, on June 28th; Macoun records a bird with a young brood in July, 1896, seen at Great Whale River, Hudson Bay, by Spreadborough. Turner also says that specimens were procured at Rupert House on June 15, 1860. Coues met with the bird but once on the southeast coast and Bigelow saw three or four near Cape St. Francis.

Cartwright records seeing on September 10, 1772, a snipe "which is the first I have seen in this country"; again on September 19, 1775, he says: "Saw a snipe; which is the second that I have seen in the country." This was in Sandwich Bay; the first near Cape Charles.

[*Gallinago major* (Gmel.). GREATER SNIPE.—Coues called attention to the specimen of this species from Hudson Bay in the collection of the British museum but there is nothing to show whether or not it came from the Labrador side of Hudson Bay.]

Macrorhamphus griseus (Gmel.).

DOWITCHER.

Rare transient visitor.

This species may breed in Ungava but the evidence at hand does not prove that it is more than an uncommon migrant on the Labrador coasts. Turner speaks of it as rare at Fort Chimo, and mentions specimens from that place and from Davis Inlet. Coues also obtained an immature bird in southern Labrador on August 23, 1860.

The coast of Labrador is largely rocky, and in most places bold and precipitous. Salt marshes, sand beaches, and even pebbly beaches are few and far between; most of the shore birds, therefore, are not tempted to tarry long on the coast during the migrations.

Tringa canutus Linn.

KNOT.

Uncommon transient visitor.

Stearns found it an uncommon migrant on the southern coast and in his account of "Bird-life in Labrador" records having obtained a specimen on September 30th. Coues also shot a few immature birds after August 21st on the south coast (Henley Harbor) and Palmer secured two females from flocks of White-rumped Sandpipers on the Mingan Islands.

Arquatella maritima (Brünn.).

PURPLE SANDPIPER.

Rare transient and winter visitor.

The only positive record we have for this species is that of Audubon who speaks of shooting specimens at Bradore on August 4, 1833. Turner did not observe them. As they breed in Greenland and remain off the coast in winter if the sea be open, it is probable that they occur more commonly in Labrador than our records would admit. It is possible that they may yet be found breeding in northern Ungava.

Actodromas maculata (Vieill.).

PECTORAL SANDPIPER.

Common autumnal transient visitor.

This species is a common migrant on the east and south coasts of Labrador after the middle of August. It is not known to breed in the peninsula. We obtained the skin of one from the Eskimos at Hope-dale.

Actodromas fuscicollis (Vieill.).

WHITE-RUMPED SANDPIPER.

Common transient visitor.

Stearns was probably mistaken in supposing that "a few breed" in southern Labrador, as this species is not known to nest even in Ungava (Turner). The fall migration is under way early in July. Stearns notes a specimen as late as October 8th, on the south shore. We saw two flocks of these birds of twenty or thirty each at Battle Harbor on August 1st and 2d. One of the flocks was waiting quietly for the fall of tide on the weed-grown ledges.

Actodromas minutilla (Vieill.).

LEAST SANDPIPER.

Common summer resident and abundant transient visitor.

Low found the Least Sandpiper nesting commonly on the upper Hamilton River, and Turner supposed that a few might breed about the mouth of the Koksoak River. Audubon found a nest and four eggs in southern Labrador on July 20, 1833, but as he says, this is probably a late date for eggs, since full-grown young in flocks are seen already moving south in the first week of August. Frazar found small flocks "all through the summer" in southern Labrador. Coues states that they were still abundant on the south coast on September 1st. At Battle Harbor, where no birds were found breeding, we saw the first migrant on July 26th, a single bird feeding on the edge of a little pool.

***Pelidna alpina sakhalina* (Vieill.).**

RED-BACKED SANDPIPER; AMERICAN DUNLIN.

Uncommon transient visitor.

Bigelow records "a few at Port Manvers in early September." Weiz ('66) includes it as breeding at Okkak, but this is probably an error.

***Ereunetes pusillus* (Linn.).**

SEMPALMATED SANDPIPER.

Common summer resident locally; abundant transient visitor.

Audubon found this species nesting in early June in southern Labrador. He also adds this note ('42, vol. 5, 277): "About the period when these birds prepare to return southward, they congregate in large flocks, the young separate from the old. In Labrador this takes place from the beginning to the middle of August." Bigelow found them breeding locally and describes the downy young. Turner notes their breeding at the mouth of the Koksoak River.

We saw only a few migrants on July 27th at Great Caribou Island.

***Calidris arenaria* (Linn.).**

SANDERLING.

Common transient visitor.

The Sanderling has been noted by several observers during the migrations in various parts of the peninsula. Audubon says: "Some young birds were seen at Bras d' Or, in little parties of four or five individuals . . . early in August, and they were already on their way southward"; and Packard says: "Three seen (2 taken) at mouth of Koksoak River." Macoun reports that a pair was seen by Spreadborough on a small island in James Bay, June 16, 1896, and adds, "doubtless breeding." As shore birds occasionally linger on the New England coast on their way north as late as this, and as non-breeding birds sometimes spend the summer considerably south of their breeding range this note should be received with caution.

***Limosa haemastica* (Linn.).**

HUDSONIAN GODWIT.

Very rare transient visitor; July 30 to September 30.

There are only three records of this bird. "Drexler obtained a specimen near Rupert House, July 30, 1860" (Packard, '91, p. 430). Stearns ('90) says that one was shot at Bonne Esperance on September 30, 1880. He states that this was the only one taken on the coast. Again he refers in this same publication to a single specimen taken on September 10th, at Old Fort Island.

***Totanus melanoleucus* (Gmel.).**

GREATER YELLOW-LEGS; WINTER YELLOW-LEGS; "AUNTSARY."

Common summer resident; May 7 to October 19.

Cartwright defines "Auntsary" as "a bird of the wading genus, resembling a redshanks." He shot one on the late date of October 19, 1770, near Cape Charles.

Audubon found it breeding in Labrador in June. Frazar found a pair breeding at Esquimaux Point. Palmer reported it as "very abundant at Mingan." Low says it is "occasional throughout the interior, breeds"; he saw a pair at Lake Mistassini, May 1st. Coues found it "very common along the coast during summer and early fall." Bigelow saw a few late in September at Port Manvers. Turner says: "Not common in Ungava district. Specimens in fall only at mouth of Koksoak River."

We heard the note of one of these birds at Battle Island on August 2d.

***Totanus flavipes* (Gmel.).**

YELLOW-LEGS; SUMMER YELLOW-LEGS.

Uncommon transient visitor.

There are but few records of this bird for Labrador. The fact that it is so extremely rare on the New England coast in the spring while abundant in the autumn, and the fact that it goes north by a more inland route would lead one to infer its absence or great rarity on the

eastern and southern coast of Labrador in the spring. Audubon says he found "a few on the coast of Labrador." Packard reports "one seen Oct. 8, about 50 miles above Fort Chimo on the Koksoak River." Low says: "Seen only after August 1st, on Hamilton River and at Mistassini." On the west coast, however, it is reported in the spring by Spreadborough who saw a number on the shore of James Bay, June 15, 1896.

Helodromas solitarius (Wils.).

SOLITARY SANDPIPER.

Uncommon summer resident.

Packard reports that "one was obtained near Fort Chimo in July whose actions indicated breeding." Spreadborough shot one from the top of a spruce at Seal Lake, northern Labrador, on July 24, 1896. Low says: "Common throughout the interior, especially south of latitude 54°. Breeds. Seen May 27th. Eggs, June 19th."

[**Heteractitis incanus** (Gmel.). WANDERING TATLER.—An erroneous record of this western bird was made by Bell ('83, p. 51): "I obtained a specimen of the Wandering Tatler (*Heterocelus brevipes* Vieill.) supposed to be a western species, on the East Main coast."

In reference to this Dr. J. Macoun writes us under date of March 13, 1906: "We are all satisfied that it is a mistake to consider the Wandering Tatler as having been taken on the Labrador peninsula."]

Tryngites subruficollis (Vieill.).

BUFF-BREASTED SANDPIPER.

Very rare transient visitor.

Coues records the capture of a specimen near Henley Harbor on August 20, 1860, and Robert Bell records one at Port Burwell on September 28th.

Actitis macularia (Linn.).

SPOTTED SANDPIPER.

Common summer resident.

This familiar bird finds suitable nesting places all along the rocky

shores of Labrador from Ungava to Mingan, and along the courses of the numerous rivers and the shores of lakes in the interior. The eggs are laid during the latter part of June or early in July and the young appear in July.

Audubon in his Labrador journal speaks of finding a nest "made of a quantity of dried grass, forming a very decided nest, at least much more so than in our middle states."

We observed this bird only at Battle and Great Caribou Islands and at Cape Charles, four or five birds in all. At Battle Island on July 13th, we watched the manoeuvres of a pair of these birds in their efforts to drive a couple of Eskimo dogs away from the vicinity of their young which were probably hidden in the grass. The birds alternately attacked the dogs and then allowed themselves to be chased by them. In the first instance the birds flew furiously at the dogs, almost striking them and whistling loudly. In the second instance, the birds flew away slowly close to the ground so that the dogs were tempted to chase them. The incident illustrated the dangers of Eskimo dogs as destroyers of eggs and young birds.

[*Numenius longirostris* Wils. LONG-BILLED CURLEW.—Coues was assured of the occurrence of this bird in Labrador by hunters, but Audubon and Turner both state that they could obtain no evidence of its presence. As old female Hudsonian Curlews, with their long bills are often mistaken by gunners for this species, we have placed this bird in the doubtful list. It is western in its distribution.]

***Numenius hudsonicus* Lath.**

HUDSONIAN CURLEW.

Uncommon autumn transient visitor.

Coues saw a few and states that they were shy and were most numerous at the time *N. borealis* was taking its departure. Turner saw three at the mouth of the Koksoak River in September, 1882. Weiz records it at Okkak, and Stearns and Frazar both state that it is not a rare migrant in the autumn. Audubon, on the other hand, says: "Entirely unknown. Even Mr. Jones and his sons, who had probably killed thousands [of *N. borealis*]. . . had never seen it in the course of their long residence at Bras d' Or." On September 3, 1776, Cartwright says that a curlew he had shot "weighed 15 oz. (the common

sort but nine and a half) and the wings extended are longer by five inches." It is very possible that this may have been a Hudsonian Curlew.

Numenius borealis (Forst.).

ESKIMO CURLEW; "THE CURLEW"; "THE C'LEW."

Formerly an abundant but now a very rare autumn transient visitor; July 28 to October 24.

The Eskimo Curlew was formerly the most characteristic bird of Labrador, where it was found in great multitudes during the autumn migrations.

Cartwright makes frequent reference to them in his journal, and recorded their arrival and departure for many years. Thus on August 26, 1770, at Charles Harbor, he writes: "On some low hills, partly barren, and the rest covered with small bad spruce-bushes were many large flocks of curlews feeding on the berries, which were very plentiful there; but could kill only one. The berries of the *Empetrum Nigrum*, and likewise some delicious blue berries which grow on a small shrubby plant, called Ground Whortle, both of which are now ripe, are what the curlews delight to feed on. These not only make them uncommonly fat, but also give their flesh a most delicious flavor." In another place he indulges in rhyme:

"When August comes if on the Coast you be,
Thousands of fine Curlews, you'll daily see."

The dates he gives of arrival and departure are as follows: August 4 to September 10, 1770; August 3, 1771; August 5 to October 2, 1772, and one which he shot near Chateau on October 24, 1772; August 4, 1774, at Mary Harbor; August 6 to September 18, 1776; July 28, 1777, this date he notes as being a few days earlier than usual; October 3, 1778; August 3, 1779; September 9, 1783; August 1, 1785; August 2, 1786. He gives no record of their appearance in the spring, and as he was constantly in the field with gun in hand it is probable that he would have noticed them if they were ever to be seen at that season. It is well known that these curlews go north by the Mississippi valley route. As Cartwright generally killed single birds with his rifle, by knocking their heads off, his influence on their numbers could not have been very great.

Chappell in the beginning of the nineteenth century, while on his voyage in the ship *Rosamond* notes "a sort of *Curlew* makes its appearance here about the middle of *August*, and as suddenly takes its departure towards the end of September; they move in flights containing many thousands; and when gorged with food, it is not unusual to kill ten or twelve at a shot; at such times they are found to be exceedingly plump and delicate, and far surpassing any of our *English Game* in richness and flavour."

Audubon first met with this bird at Bras d' Or on August 3, 1833, when it arrived from the north. His description in his Labrador journal is as follows: "This afternoon we all went ashore, through a high and frightful sea which drenched us to the skin, and went to the table-lands; there we found the true Esquimau Curlew, *Numenius borealis*, so carelessly described in Bonaparte's Synopsis. This species here takes the place of the Migratory Pigeon; it has now arrived; I have seen many hundreds this afternoon, and shot seven. They fly in compact bodies with beautiful evolutions, overlooking a great extent of country ere they make choice of a spot on which to alight; this is done wherever a certain berry, called here 'Curlew berry' proves to be abundant. Here they balance themselves, call, whistle, and of common accord come to the ground, as the top of the country here must be called. They devour every berry, and if pursued squat in the manner of partridges. A single shot starts the whole flock; off they fly, ramble overhead for a great distance ere they again alight. This rambling is caused by the scarcity of berries." And again on August 4th: "This species of Curlew, the smallest I ever saw, feeds on the berries it procures, with a rapidity equalled only by that of the Passenger Pigeon; in an instant all the ripe berries on the plant are plucked and swallowed, and the whole country is cleared of these berries as our western woods are of the mast. In their evolutions they resemble Pigeons also, sweeping over the ground, cutting backward and forward in the most interesting manner, and now and then poising in the air like a Hawk in sight of quarry."

On August 10th he notes: "Curlews have increased in numbers, but during two fair days we had they could not be approached; indeed they appear to be so intent on their passage south that whenever the weather permits they are seen to strike high in the air across the harbor."

Tucker, who visited Labrador in 1838, says: "The curlews are

extremely abundant. They appear on the coast in the beginning of autumn in vast flocks."

Dr. J. H. Storer records in his manuscript journal that he saw the first curlews on August 3, 1849, at Red Bay. On August 7th he makes the following entry: "The Curlews began to come and in immense flocks though very shy."

Packard writes of the Curlew as follows: "On the 10th of August [1860] the curlews appeared in great numbers. On that day we saw a flock which may have been a mile long and nearly as broad; there must have been in that flock four or five thousand! The sum total of their notes sounded at times like the wind whistling through the ropes of a thousand-ton vessel; at others the sound seemed like the jingling of multitudes of sleigh-bells. The flock soon after appearing would subdivide into squadrons and smaller assemblies scattering over the island [Caribou Island] and feeding on the curlew-berries now ripe."

Coues, who was in Labrador in 1860, says that the Curlew "arrived on the Labrador coast from its more northern breeding grounds in immense numbers, flying very swiftly in flocks of great extent. These immediately broke up into smaller companies, and proceeded at once in search of food. They remained but a very short time. . . . For two or three days before their final departure, we had noticed them all moving directly southward, flying very high in the air in loose straggling flocks, with a broad extended front."

Stearns says the Eskimo Curlew were "formerly abundant; now common in the interior in the fall." Turner, whose investigations extended from June 15, 1882, to October 3, 1884, states that they are "plentiful in the fall in the southern portions and as far north as Davis Inlet; they do not halt above this latter place while on their way southward."

The Bowdoin college expedition brought back the skins of two males and one female from Holton Harbor taken on August 20, 1891.

Bigelow in 1900 "heard of only about a dozen, which were seen on the coast this fall." Of these he saw five. He states that he "made careful inquiries among the settlers and obtained the following rather interesting information: (1) the Curlew remained in their former numbers in spite of the persecution to which they were subjected until eight years ago [this would be 1892]. (2) They then appeared no more."

Dr. Wilfred T. Grenfell wrote us under date of March 10, 1906: "Eskimo Curlew (*borealis*) are getting *very* scarce. I hear only of a few dozen a year being killed. I didn't see one last year." Again in September, 1906, in answer to further inquiries he wrote: "There were Labrador Curlew this year on the coast about Hare Islands, Sandwich Bay, in small numbers. . . . The Curlew became scarce in the end of the eighties. In 1892 when I came on the coast I saw only a few flocks of any size. Of late years I never saw more than five or six." In a conversation with Dr. Grenfell during his visit to Boston in January, 1907, he stated that in 1892 he saw two flocks each containing two or three hundred, but he had not seen any numbers since.

We met with none during our visit to the coast. We talked with many natives and summer residents on the coast and they all agreed that the Curlew though formerly very abundant, suddenly fell off in numbers, so that now only two or three or none at all might be seen in a season. Capt. Parsons of the mailboat *Virginia Lake* said that they were very abundant up to thirty years ago. So abundant were they that he often shot a hundred before breakfast during the season, often killing twenty at a single discharge. The fishermen killed them by the thousands. He thought that they diminished in numbers rather rapidly between twenty and thirty years ago, and at the latter date [1886] there was a great and sudden falling off. Now he saw from six to twenty only during a season. Mr. William Pye at Indian Cove, Cape Charles, told the same story, except that he put the sudden diminution in numbers about 15 years ago or about 1891. He said, and this was confirmed all along the coast, that the fishermen kept loaded guns at their fish stages and shot into the flying masses of these birds often bringing down twenty or twenty-five at a discharge. The birds frequented the beaches and hillsides. On the hills they ate the "black-berry" (*Empetrum nigrum*). They were exceedingly fat and good eating. He advanced the theory, which we heard commonly along the coast, that the shooting had nothing to do with the diminution in the numbers of the Curlew, but that they had troubled the farmers in the "States" by eating their corn, and hence had been poisoned by the wholesale. One fisherman even went so far as to back up this statement by saying he had seen corn in their stomachs!

To sum up the evidence, we can state that the natives of Labrador persistently harassed the Eskimo Curlew but did not realize that there was any diminution in their numbers until about 1888 to 1890. After

1892, but a small remnant of this formerly abundant bird has visited the shores.

It is possible that the sudden falling off in the numbers of this Curlew may have been because they were overwhelmed by a storm in their long ocean trip to the Antilles, but it is evident that the constant persecution to which they were subject was largely responsible for their decrease. It is apparent that they are now a vanishing race — on the way to extinction.

***Squatarola squatarola* (Linn.).**

BLACK-BELLIED PLOVER; "GREY PLOVER" (Cartwright).

Common transient visitor.

Audubon found some young birds in southern Labrador in the beginning of August; Stearns reported it as "common in spring and fall." It was not observed in the Ungava district by Turner, but Weiz reported it from Okkak.

***Charadrius dominicus* Müll.**

AMERICAN GOLDEN PLOVER.

Uncommon autumn transient visitor.

Packard says it "occurs in fall only, at Koksoak. Common on south and west coasts." Weiz observed it at Okkak. Coues says it appeared in small flocks the last of August, and Bigelow found it "not common. Several flocks, mostly young birds, after August 22."

***Aegialitis semipalmata* Bonap.**

SEMIPALMATED PLOVER; RING-NECK.

Common summer resident; May to September.

The Ring-neck is found throughout the length and breadth of Labrador, breeding all along the coastline and on the outlying islands, as well as on the shores of lakes in the interior. Audubon, Coues, Stearns, Brewster, and Palmer found it on the southern coast. Coues, Weiz, and Bigelow found it on the eastern coast. Turner found it

breeding abundantly at Ungava and Davis Inlet. Low found it common on the upper Hamilton River and Spreadborough saw it throughout the interior wherever there were large lakes with sandy shores.

We found a pair at Battle Island, three pairs at Great Caribou Island, and a pair each at Long Tickle and Hopedale. Their actions suggested the presence of young.

***Arenaria morinella* (Linn.).**

RUDDY TURNSTONE.

Common transient visitor.

Stearns found it along the southern coast in small flocks; Frazar saw one flock late in May at Esquimaux Point; Palmer found a few at Mingan; Coues saw it "commonly from August 20 to September 1 at Henley Harbor." Packard records it as "occasional at Ungava. Not rare on east coast."

***Haematopus palliatus* Temm.**

AMERICAN OYSTER-CATCHER.

Extirpated; formerly summer resident.

There is no question but that this interesting bird formerly extended its breeding range much farther north than at the present day when it is found breeding only as far north as New Jersey while stragglers are occasionally taken on the coast as far north as Grand Manan.

As recently as Audubon's day, however, the Oyster-catcher occurred on the southern coast of Labrador, as the following extracts from his writings clearly show. In his Labrador journal under date of July 6, 1833, when he was near Cape Whittle, he writes: "Coolidge and party shot two Oyster Catchers; these are becoming plentiful." Again ('35a, p. 181): "It occurs all the way to Labrador, in which country I found that several were breeding in the month of July . . . In Labrador, I met with it farther from the open sea than in any other part, yet always near salt-water . . . I have seen it . . . knock off limpets from the rocks on the coast of Labrador, using its weapon [bill] sideways and insinuating it between the rock and the shell like

a chisel. . . . I saw them at Labrador until the 11th of August." Again ('42, vol. 5, p. 237) he says: "On the coast of Labrador, and in the Bay of Fundy, it lays its eggs on the bare rock." He also states that he procured a specimen.

Canachites canadensis (Linn.).

HUDSONIAN SPRUCE GROUSE; "SPRUCE GAME"; "SPRUCE PARTRIDGE."

Common permanent resident.

Low says this species is common throughout the wooded and semi-barren areas and he found eggs on June 1st. Coues found several broods on July 24th; Stearns says they are common in southern Labrador all the year round; Turner describes them as abundant throughout the wooded tracts and says they breed at Fort Chimo. Palmer, who visited the south coast in 1887, says: "We were informed that they were generally very abundant, but that great numbers had been destroyed by the severity of the previous winter."

Audubon ('35, p. 439) says: "The females of the Canada Grouse differ materially in their colour in different latitudes. In Maine, for instance, they are more richly coloured than in Labrador, where I observed that all the individuals procured by me were of a much grayer hue than those shot near Dennisville."

The subspecific difference indicated by Audubon and previously by Brisson was not formally recognized, however, until 1899 when Bangs described as a new subspecies some birds obtained at Rigolet. Norton ('01) has shown, however, that the Labrador bird is the true *canadensis*.

At Indian Cove, Cape Charles, we saw a pair of this species that had been caught near there and were confined in the upper story of a boat house.

Bonasa umbellus togata (Linn.).

CANADIAN RUFFED GROUSE; "BIRCH PARTRIDGE"; "FRENCH HEN."

Not uncommon permanent resident in southern half.

Brewster records that this bird was reported from Mingan Harbor and to the northward. Packard says it is rare at Hamilton Inlet and only on the south side; rather common at Paradise River, Sandwich

Bay; abundant in valleys to southward where white birch is plentiful. Low states that it is common at Mistassini and not rare at the mouth of Hamilton River, but that it is not found on the upper Hamilton River.

Lagopus lagopus (Linn.).

WILLOW PTARMIGAN; "BROWSE PARTRIDGE"; "GROUSE" (Cartwright).

It is often difficult to separate in the records of travelers and even in those of ornithologists the three species of ptarmigan found in Labrador. In general the Willow Ptarmigan is an abundant resident throughout Labrador south of the tree line. The Rock Ptarmigan is found on the barren treeless areas of the Arctic zone especially from Hamilton Inlet northward, while Reinhardt's Ptarmigan is found in the extreme northern parts of Labrador.

The Willow Ptarmigan breeds in the interior of Labrador in the forested region and migrates in great flocks to the barren seacoast in winter. Cartwright's observations on this bird, which he calls "Grouse," are so acute and interesting that we quote some of them in full here. He entered in his journal at Cape Charles on September 28, 1773, the following: "This morning I took a walk upon the hills to the westward, and killed seven brace of grouse. These birds are exactly the same with those of the same name in Europe, save only in the colour of their feathers, which are speckled with white in summer, and perfectly white in winter, (fourteen black ones in the tail excepted which always remain the same). When I was in England, Mr. Banks, (now Sir Joseph Banks) Doctor Solander and several other naturalists having enquired of me respecting the manner of these birds changing colour, I took particular notice of those I killed, and can aver, for a fact, that they get at this time of the year a very large addition of feathers, all of which are white; and that the coloured feathers at the same time change to white. In spring most of the white feathers drop off, and are succeeded by coloured ones; or, I rather believe, all the white ones drop off, and that they get an entire new set. At the two seasons they change very differently; in the spring, beginning at the neck, and spreading from thence; now, they begin on the belly, and end at the neck. There are also ptharmagans in this country, which are in all respects, the same as those I have killed on some high

mountains in Scotland." On April 19, 1776, he enters that the ptarmigan on the hills are "beginning to change colour now."

Audubon says that they are abundant at Bras d'Or in winter, congregating "in flocks of immense numbers, now and then mixed with the smaller species... (*Lagopus rupestris*). Their flesh is then salted for summer use." He found the bird with young just out of the shell on July 5, 1833. Frazar says that this ptarmigan visits the southern coast regularly in winter, but retreats into the interior in summer. It was unusually abundant in the winter of 1886-7. In February, 1885, two or three invoices of ptarmigan from Labrador were offered in the Boston markets (Ornith. and oologist, vol. 10, 1885, p. 32). Low found eggs on the upper Hamilton River on June 25th.

***Lagopus rupestris* (Gmel.).**

ROCK PTARMIGAN; "MOUNTAIN PARTRIDGE"; "ROCKER";
"AKKIGIK" (Eskimo).

Common permanent resident in the treeless region except in the extreme north.

The Rock Ptarmigan is found in summer in the treeless region and on the hilltops except in the extreme north where it is replaced by Reinhardt's Ptarmigan. In winter it migrates to the southern parts of the peninsula. Low says it is common in the valley of the Hamilton River during the winter, and that it leaves for the northward about April 15th. Audubon was informed by Mr. Jones that when the last of the Wild Geese had passed, the Rock Ptarmigan came in numbers about Bras d'Or and spent the winter on the wind-swept hilltops, repairing in the beginning of summer to the open grounds of the interior to breed. In another place he says: "They keep in great packs [in winter], and when disturbed are apt to fly to a considerable distance, shifting from one hill to another, often half a mile off." Frazar says: "Mr. Jones, with whom I lived at Cape Whittle, and who was a very reliable man, told me that several years before he was on the shore of the Straits one day in early winter, and that flock after flock of these birds were flying in from across the water and that they lit upon the first land they could reach, evidently being greatly fatigued."

Dr. Grenfell told us that ptarmigan sometimes alight on vessels in the Straits of Belle Isle. Ptarmigan are easily killed and form an important food supply for the fur trappers in winter.

Lagopus rupestris reinhardi (Brehm).

REINHARDT'S PTARMIGAN.

Common permanent resident in the extreme north.

Bigelow says that it is probably this race that is found north of Okkak. They migrate back and forth across Davis Strait in spring and fall.

Dr. Grenfell told us that they gather at Cape Chidley in multitudes in the spring just before their annual migration across the Hudson Straits. They are killed by the Moravians and Eskimos in great numbers and barrelled. He illustrated the abundance of this bird in winter as well as its tameness and the skill of the Eskimos with the whip by the following anecdote. During a three-day sledge trip made in winter by the Rev. S. M. Stewart from the George River to Fort Chimo his Eskimo driver succeeded in killing 500 ptarmigan by cutting off their heads with his long whip.

Pedioecetes phasianellus (Linn.).

SHARP-TAILED GROUSE.

Uncommon permanent resident in southwestern Labrador.

Low says that it has been killed in winter at Great Whale River, and states that its northern limit in Labrador is at lat. 57°. He took a set of eggs on May 20, 1889, at Fort George, on James Bay. Spreadborough states that it is said to be common at Fort George in winter, and one was shot on June 18, 1896, a short distance south of Fort George, James Bay. Fleming ('06) records, that according to Bishop Newnham, there is a fall migration of these birds from the northeast, to be observed at Moose Factory, "usually when the marsh hay is being gathered."

Ectopistes migratorius (Linn.).

PASSENGER PIGEON.

Formerly very rare, now extirpated.

Baird, Brewer, and Ridgway say of this bird: "On the coast of Hudson's Bay it reaches no farther than the 58th parallel, and only in

fine summers, but in the interior or in the warmer central districts it attains to the 62d degree. Mr. Hutchins mentions, as a remarkable occurrence, that a flock of these Pigeons visited York Factory and remained two days." Low's record is: "Very rare. Eggs obtained at Fort George, 1887."

Cartwright on August 22, 1775, in Sandwich Bay enters in his journal this note: "Near the mouth of the brook we saw a pair of doves, and I killed one with my rifle; it was much like a turtle dove and fed on the berries of the *Empetrum nigrum*. I never heard of such a bird in the country before, and I believe they are very scarce." These may have been either Passenger Pigeons or Mourning Doves.

***Zenaidura macroura* (Linn.).**

MOURNING DOVE.

Accidental visitor.

There is only one record, that of Norton: "A badly mutilated specimen. . . taken at Red Bay, Labrador, September 7," 1898, by the Bowdoin college expedition.

***Cathartes aura* (Linn.).**

TURKEY VULTURE.

Accidental visitor.

We are enabled to add this species to the list of Labrador birds, having received a letter under date of November 18, 1906, from Mr. Ernest Doane of West St. Modest to the effect that a Turkey Vulture was caught in a fox trap at that place on November 10, 1906.

***Circus hudsonius* (Linn.).**

MARSH HAWK.

Very rare summer visitor in southern Labrador.

Audubon says: "I have met with it in Newfoundland and Labrador." Stearns obtained one specimen at Dead Island Harbor.

Accipiter velox (Wils.).

SHARP-SHINNED HAWK.

Very rare summer resident in southern Labrador.

Verrill said that one was seen "evidently nesting" near Salmon River on July 3, 1861. Macoun says that Spreadborough saw only one in northern Labrador and this on July 8, 1896.

Accipiter cooperii (Bonap.).

COOPER'S HAWK; "PARTRIDGE HAWK" (Stearns).

Rare summer resident in southern Labrador.

Stearns is our only authority for this species. He says that he saw the bird "several times"; and again: "I saw the tail of a Cooper's Hawk in the possession of one of the natives, a few miles in the interior up Esquimaux River. . . . He did not regard it as at all rare."

Accipiter atricapillus (Wils.).

AMERICAN GOSHAWK; "PARTRIDGE HAWK."

Uncommon permanent resident.

Packard states that this hawk is resident in Ungava, breeding near Fort Chimo. A specimen was obtained in early December, 1882. Coues obtained an immature bird from the natives. Low says that a specimen was killed near Cambrian Lake, Koksoak River; also on the lower Hamilton River, "not common." Spreadborough noted one at Seal Lake, Ungava, on July 24, 1896; another a short distance above Ungava Bay on August 23, 1896. He took a set of two eggs of this species at Great Whale River on June 18, 1896.

Buteo borealis (Gmel.).

RED-TAILED HAWK.

Very rare summer visitor.

Audubon in his journal under date of July 11, 1833, near Cape-

Whittle says: "A tail feather of the Red-tailed Hawk, young, was found; therefore that species exists here." Palmer records that "two were seen at the Mingan Islands."

[*Buteo platypterus* (Vieill.). BROAD-WINGED HAWK. — One was obtained at Moose Factory in 1862, but there is no record for Labrador.]

***Archibuteo lagopus sancti-johannis* (Gmel.).**

AMERICAN ROUGH-LEGGED HAWK.

Very common summer resident.

Macoun says this is the common hawk of Ungava and the barren-grounds. It was observed by Spreadborough at the mouth of Great Whale River. It breeds on the high cliffs from James Bay to Ungava Bay and also on the east coast. Three incubated eggs were found July 13th, and a nest with half-grown young at Seal Lake, Ungava, on August 3d. Macoun also reports a set of eggs from Hamilton Inlet on May 17th, and from Fort Chimo on June 20th. Bigelow found it very common on the east coast where it nests on cliffs some distance from the sea. Packard says that both light and dark phases breed at Fort Chimo, and that it is more abundant on the east and north, than on the south shores. Norton mentions two specimens brought back by the Bowdoin college expedition from the south coast, one from Chateau the other from Red Bay, taken in mid-July. Dr. H. R. Storer records in his journal that on August 15, 1849, he found the nest and young of this species at Red Bay. On August 16th he found a nest, egg, and fledged young at Bras d'Or. The account of this last nest is given in detail by Baird, Brewer, and Ridgway ('74, vol. 3, p. 309).

We saw one of these birds at Long Tickle on July 20th, one at Pack's Harbor on July 24th, one at Great Caribou Island on July 27th, and one near Battle Island on August 1st. They were all in the black plumage. We also obtained the skin of one from the Eskimos at Hopedale. This was very black including the rump, which was no lighter than the rest of the back. The bird seen at Pack's Harbor poised motionless for several minutes about a hundred feet above a high hill over which a strong wind was sweeping. He was suspended like a kite in the strong air currents, heading into the wind.

He seemed to be looking down, but occasionally turned his head from side to side. Once he dropped momentarily his heavily feathered legs.

***Aquila chrysaetos* (Linn.).**

GOLDEN EAGLE.

Very rare permanent resident.

Audubon records one of these birds for southern Labrador in these words: "At Labrador, we saw an individual sailing, at the height of a few yards, over the moss-covered surface of the dreary rocks." Packard says that specimens of the Golden Eagle have been procured in the Ungava district, and that it breeds in the northeastern portions among the hills. A pair also bred at the "Forks" in the Ungava district. Low states that it "breeds at head of Lake Michikamau. Seen in several places along upper Hamilton River." Spreadborough thought he saw one near the "Forks" above Ungava, and, at Fort Chimo, in September, 1896, he saw a skin of one shot a few days before on the river. Bryant saw a single Golden Eagle at Bradore in 1860.

[***Haliaeetus albicilla* (Linn.).** GRAY SEA EAGLE.—Weiz stated that this bird breeds at Okkak, but he was probably in error and confused this species with the Bald Eagle.]

***Haliaeetus leucocephalus alascanus* C. H. Townsend.**

NORTHERN BALD EAGLE.

Rare summer resident.

Frazar saw one at Cape Whittle on the southern coast and states that it is "not a rare summer resident, as I heard of about six pair that bred at different places along the coast and always in trees." Low saw a pair on the Hamilton River below Grand Falls on April 28th. Cartwright obtained three eagle's eggs on April 30, 1775, near Cape Charles. On May 30, 1776, in Sandwich Bay he records two eggs of eagles, and again on June 11, 1773, three eggs. The species is not mentioned. A pair of this species was seen on August 17, 1896, by A. P. Low near Ungava Bay.

Falco islandus Brünn.

WHITE OR ICELAND GYRFALCON.

Common permanent resident.

There is great confusion as to the specific status of the gyrfalcons, and it is thought by some that there may be only one species with various color phases. The four forms have all been observed and specimens taken in Labrador. Two, the white and the black forms, have been found breeding. Our own observations of this class of falcons in Labrador were very meager. They will be referred to later. We have entered here all the records for Labrador we could obtain.

Audubon describes a pair of adults of this species shot on August 6, 1833, eight or ten miles from Bradore on the south coast of Labrador. Their full-grown young escaped. The nest was on a cliff and was surrounded by remains of Puffins, Murres, and Ptarmigan.

Packard says it is "common at Fort Chimo and east coast of Labrador. Resident in northern portions, breeds at Fort Chimo." Weiz says it breeds at Okkak. Harvie-Brown says a specimen was shot at Ungava Bay by Thomas Mackenzie in 1890. Robert Bell says that two were killed at Port Burwell in August and September. The following specimens of *islandus* are in the Bangs collection: no. 9742, Hopedale, 1898; no. 9743, Okkak, 1895; no. 9744, Okkak, October, 1896; no. 9741, Makkovik, late autumn, 1900.

At Henley Harbor on August 2d, we saw a bird evidently of this species circling about some high cliffs half a mile distant. It sailed up to a deep cleft into which it disappeared, soon to re-appear and alight on a shelf. Here it hopped and fluttered a few paces before again taking flight. The bird was noticeably white, somewhat mottled with darker color, especially on the wings whose primaries appeared white at the ends.

Falco rusticolus Linn.

GRAY GYRFALCON.

Rare winter visitor.

The only record is that of Packard ('91, p. 423): "Winter specimens only obtained at Fort Chimo. Not known to breed in the Ungava district."

Falco rusticolus gyrfalco (Linn.).

GYRFALCON.

Rare visitor.

The A. O. U. check-list for 1895 records this form for "Arctic America, from Northern Labrador and Hudson Bay to Alaska." There is a specimen in the Bangs' collection, no. 9745, from Okkak, taken September, 1896. We obtained a good skin of this form of gyrfalcon taken by the Eskimos at Hopedale in the winter of 1905-06. It was identified by Mr. William Brewster. Of considerable interest in this specimen is the presence of a white and mottled tail feather, the first to the left of the center. This feather is entirely different from the others being nearly white with considerable mottling and spotting of dark brown on the outer web, and eight fairly distinct half bars on the inner web. The markings are more distinct in the distal half of the feather and are fainter on the lower surface. Feathers similar to this occur in the tails of some specimens of *islandus* and suggest that the bird may have been changing from one to the other color phase. Both the white feather and the dark ones appear to be of the same age, however, all being slightly brown. The case may have been one of partial albinism only. The observations of Hagerup ("The Birds of Greenland," edited by Montague Chamberlain, Boston, 1891) are of interest in this connection. He obtained specimens of the white form with dark spots on the thighs and ventral regions, that resembled in this respect specimens of *rusticolus*. He says: "As Holböll and Flucker repeatedly observed mated pairs, one of which was white (*F. islandicus*), and the other dark (*F. rusticolus*), and as Holböll also found light and dark-colored young in the same nest, I conclude with these observers that there is but one species of Gyrfalcon found in Greenland."

Falco rusticolus obsoletus (Gmel.).

BLACK GYRFALCON; LABRADOR GYRFALCON.

Common permanent resident.

This is the variety *labradorius* of Audubon. He found a pair of these birds with two young on August 6, 1833, eight or ten miles from Bradore. Stearns found the Black Gyrfalcon in southern Labrador

and thought it was nesting. It was reported to Coues and said to be commoner in winter. Turner found it abundant at Fort Chimo in summer, but very rare in winter. He found eggs on May 24th. Low shot a specimen at Cape Chidley. Spreadborough found it common below Fort Chimo on September 18, 1896. A set containing three eggs was taken at Fort Chimo in June, 1897. Bigelow states that the Black Gyrfalcon is "rare. One at Port Manvers, September 4." Eifrig in a recent note ('05, p. 239) says that this species is "reported by Mr. [A. P.] Low as common near Cape Chidley and over the whole of Ungava, where they also breed in numbers."

There are two specimens in the Bangs collection from Labrador: no. 9747, Hopedale, November 4, 1898, and no. 9746, Hopedale, August 9, 1898. Baird, Brewer, and Ridgway mention a female from Rigolet, and two females from Fort Nescopec [= Nascopee].

Falco peregrinus anatum (Bonap.).

DUCK HAWK.

Common summer resident.

The Duck Hawk has been reported as breeding from Cape Whittle to Cape Chidley. Audubon found a nest and young about one week old near the former cape on July 5, 1833. Turner says it is abundant at Fort Chimo and he found eggs on May 24th. Macoun records two sets of three eggs each from Fort Chimo taken in June, 1898. Weiz says it breeds at Okkak. Low found it "not uncommon throughout the interior," and Bigelow says: "Fairly common, especially wherever the sandpipers were flocking."

Falco columbarius Linn.

PIGEON HAWK.

Common summer resident.

Audubon found three sets of five eggs each of this hawk in southern Labrador. They were all laid about June 1st. On July 1, 1833, he found a nest containing three eggs and two young just out of the shell. Coues, Stearns, Frazar, and Palmer also report it for the southern coast. Weiz says they breed at Okkak, and Spreadborough reports

them off Cape Chidley, and across Ungava from Great Whale River almost to Fort Chimo.

We saw one bird of this species near Long Tickle on July 20th.

Falco sparverius Linn.

AMERICAN SPARROW HAWK.

Rare summer visitor.

The only record we have is that of Coues ('61, p. 216): "A single individual . . . was observed during my stay in Labrador."

Pandion haliaëtus carolinensis (Gmel.).

AMERICAN OSPREY; FISH-HAWK.

Common summer resident in the southern parts of Labrador.

Audubon records: "Many Fish-Hawks are found here, and I saw several of their nests, placed on the low fir trees." Frazar found them "common and breeding all along the coast as far east as Cape Whittle." Palmer saw several pairs at the Mingan River. Low states they are "common throughout southern interior, to lat. 54°. Seen May 27th. Eggs June 12th." Spreadborough did not see any of these birds in Labrador north of Moose Factory. Macoun records eggs found by Low on the upper Hamilton River on June 10, 1894. Turner was assured by John Ford that four or five pairs bred some four miles above the Hudson's Bay company's post on the Northwest River. Dr. Grenfell noted a Fish-hawk at Nachvak in the spring of 1900.

While we were in Labrador we saw two hawks of this species, one on July 12th near St. Lewis Sound, the other on July 18th at Rigolet.

Asio accipitrinus (Pall.).

SHORT-EARED OWL.

Common summer resident.

One specimen was taken in southern Labrador on October 16th by Stearns. Brewster saw two on July 22d on one of the Mingan Islands.

Low saw the birds on the upper Hamilton and Romaine Rivers. Bigelow reported it "rather common at Port Manvers and Nachvak in September." Weiz says it breeds at Okkak and Packard states that it is "common and breeds at Fort Chimo. Plentiful on east shore of Hudson Bay. Not known to winter." Mr. Schmitt of Nain told us that he had found this species breeding near that mission, and we obtained a specimen from the Eskimos at Hopedale.

Syrnium varium (Barton).

BARRED OWL.

Very rare summer visitor in the south.

The only record is that of Audubon ('39, p. 386): "A few were seen by myself and my party in Labrador."

[**Scotiaptex nebulosa** (Forst.). GREAT GRAY OWL.—A specimen of this species was taken by James McKenzie at Moose Factory close to, but just outside of the western boundary of the Labrador peninsula. Its occurrence in Labrador is doubtful, notwithstanding Weiz's assertion that it breeds in Okkak, and Audubon's poetic mention of this bird in his journal written evidently during a state of depression brought on by the hard work and arctic environment. He does not mention the occurrence of this owl in Labrador in his ornithological writings. In his journal, however, under date of July 10, 1833, written near Cape Whittle, he describes "one of these dismal gales which blow ever and anon over this desolate country . . . the Great Gray Owl is perched on the southern declivity of some stupendous rock, and the gale continues as if it would never stop."

In Cartwright's "Journal" under date of October 29, 1773, the following record occurs: "Walked upon Lyon Neck, and there broke both the legs of a large grey owl." This he did with his rifle. Lyon Neck is a rocky neck devoid of trees, at the northern entrance to The Lodge. It is not a place where one would expect to find a Great Horned Owl, hence it is possible that Cartwright refers to the Great Grey Owl.]

Cryptoglaux tengmalmi richardsoni (Bonap.).

RICHARDSON'S OWL.

Rare permanent resident.

The only record we have for this owl is a specimen in the Bangs collection taken by Doane at Lance au Loup on March 1, 1899. It will probably be found breeding.

Cryptoglaux acadica (Gmel.).

SAW-WHET OWL.

Rare summer resident.

The only record is that of a specimen reported by Low as shot near Lake Mistassini. It probably breeds.

Megascops asio (Linn.).

SCREECH OWL.

Audubon ('39, p. 392) states explicitly that this species "is . . . met with abundantly in . . . Labrador, where I procured it." It does not seem possible that he could have mistaken the Hawk Owl or any other small owl for this species especially as he "procured it." No other ornithologist has met with it in Labrador, yet we cannot disregard this record of Audubon which apparently points, as in the case of the Oyster-catcher to a wider range in former times for this species, as it is now rarely found north of New Brunswick on the eastern American coast although it is reported as a summer migrant to Newfoundland.

Asio magellanicus heterocnemis Oberholser.

LABRADOR HORNED OWL.

Common permanent resident.

Oberholser's Labrador form of the Horned Owl seems to be so distinct that we have recognized it here. Previously considerable confusion existed as to the status of this bird in Labrador, and it has been reported under the head of *Bubo virginianus*, *B. virginianus saturatus*, and *B. virginianus pacificus*.

Stearns states that it is not rare about the Esquimaux River in southern Labrador; Macoun reports a skin and two eggs taken on May 1, 1896, at Sandwich Bay by W. Raine. Coues reports a single bird seen at Rigolet. Low says it is "common about Northwest River during winter. Common in the interior." Norton records a bird in juvenal plumage taken at Cullingham's Cove, Hamilton Inlet, on August 1st. Spreadborough saw none while crossing Ungava. Packard says it is a resident and not rare at Fort Chimo. Downy young were obtained there on June 20, 1884.

Oberholser describes this form as considerably larger than *virginianus* and darker; grayish and blackish tints predominate over rufous ones. It differs from *saturatus* in having a larger bill; posterior lower parts paler; feet lighter colored and less heavily spotted; upper parts with usually less ochraceous. He gives the distribution as "Labrador, including at least the north coast of the Territory of Ungava." He has examined specimens from Okkak, Makkovik, Hopedale, Turnavik, Lance au Loup, Fort Nascopee, Fort Chimo, and near Forks.

We obtained a very good skin from the Eskimos at Hopedale. The Moravians said it must have been shot near there sometime during the previous winter. The measurements are: wing, 380 mm.; tail, 225 mm.; exposed culmen, 43 mm.; culmen without the cere, 31 mm. The measurements are those of a female of this race and the coloring is characteristic.

[*Bubo virginianus*, *B. v. saturatus*, *B. v. pacificus*. See *Asio magellanicus heterocnemis*.]

Nyctea nyctea (Linn.).

SNOWY OWL.

Not common permanent resident.

The Snowy Owl occurs apparently only in winter on the southern coast but breeds in the northern parts. Stearns found it not rare in winter all along the southern coast "to Red Bay, at least." He speaks of a single bird that stayed about Old Fort Island all winter and could not be stalked. He says that the Indians hunt this owl in pairs, one Indian going in one direction and attracting the bird's attention, while the other crawls up to shoot it. Packard says it is common and breeds at Fort Chimo. Bendire mentions eggs in the National museum from Labrador.

Mr. W. B. Cabot, who has made a number of trips into the interior of Labrador, tells us he has only once seen this bird. Mr. Schmitt of Nain told us that the Snowy Owl breeds in that vicinity. Low ('06) records that "at Cape Dufferin on the east side of Hudson Bay, upwards of thirty of these birds were caught by placing fox traps on the top of short poles, at intervals along the coast, during the southern migration of the birds in October, 1901." At Dead Island on July 26th, we found the dried and disintegrated body of a Snowy Owl.

***Surnia ulula caparoch* (Müll.).**

AMERICAN HAWK OWL.

Uncommon permanent resident.

Turner found the Hawk Owl rare at Fort Chimo, and he took its eggs on June 8, 1884. The young were ready to leave the nest on June 20th. Low saw the bird several times on the upper Hamilton River and Macoun reports a set of five eggs from Hamilton Inlet taken on May 24, 1896, by Raine. Macoun says it is rare at Lake Mistassini where it is found in winter. In the Bangs collection is a specimen from Black Bay on the Straits of Belle Isle taken on November 18, 1898, by Doane.

We saw three or four skins of this bird in Dr. Grenfell's hospital at Battle Harbor and obtained one. The bird had been killed at Fox Harbor. We also saw the skin of one at Hopedale.

[***Coccyzus americanus*** (Linn.). **YELLOW-BILLED CUCKOO.**—Although Audubon says: "Even in Labrador . . . I saw a few," we think he must have confused this species in his memory with the Black-billed Cuckoo of which he gives a more definite record.]

***Coccyzus erythrophthalmus* (Wils.).**

BLACK-BILLED CUCKOO.

Very rare summer visitor in the southern part.

Audubon's is the only record; he says ('39, p. 524): "We saw a few in Labrador, amid the clumps of low trees a few miles from the shore of the Gulf in secluded and pleasant valleys."

***Ceryle alcyon* (Linn.).**

BELTED KINGFISHER.

Common summer resident in the southern part of Labrador.

Audubon, Stearns, Brewster, Frazar, and Palmer found this bird on the southern coast of Labrador. Low says it is "not found north of the vicinity of the Grand Falls, Hamilton River. Common on Romaine River and at Lake Mistassini." He records its arrival at

Lake Mistassini on May 14th. Frazar reports its arrival at Esquimaux Point on May 22d. Packard says it breeds at Northwest River.

***Dryobates villosus leucomelas* (Bodd.).**

NORTHERN HAIRY WOODPECKER.

Uncommon resident in southern Labrador.

Stearns found it "common inland in winter at least about Esquimaux River." Packard says it is "resident in southern portions. Probably absent north of 'Height of Land.'" Low, however, "shot [it] in valley of Hamilton River in March," where it was "not rare." Spreadborough found none farther north in Labrador than the foot of James Bay.

We saw no Hairy Woodpeckers in Labrador and were unable to obtain any specimens.

***Dryobates pubescens medianus* (Swains.).**

NORTHERN DOWNY WOODPECKER.

Common permanent resident in southern half of Labrador.

Audubon and Stearns found this woodpecker in southern Labrador. Packard states that it is a "common resident in southern portions; probably does not range north of 56°." Low states that it is common on Hamilton River throughout the year and that it is seen at Lake Mistassini throughout the winter.

***Picoides arcticus* (Swains.).**

ARCTIC THREE-TOED WOODPECKER.

Common resident north to tree limit.

Frazar found a pair at Esquimaux Point in early September and Brewster heard one at the mouth of the Mingan River in southern Labrador. Packard states that it is a common resident throughout the wooded portions, and Low found it common along the lower Hamilton River. Bangs lists a specimen from Bechoine and one from Makkovik.

Picoides americanus Brehm.

AMERICAN THREE-TOED WOODPECKER.

Common permanent resident north to tree limit.

Packard says it is "common and resident throughout the wooded portions" and Norton records a bird in juvenal plumage from the Northwest River.

Bangs ('00, pp. 138, 142) characterizes the Labrador bird as *Picoides americanus labradorius*, type from Okkak; range, Labrador peninsula north to tree limit; intergrades in Quebec. He bases this on 24 specimens as follows: from Okkak, 8; Nain, 4; Hopedale, 3; northern Labrador, 1; Black Bay, 2; Lance au Loup, 2. We obtained the skins of two from the Eskimos at Hopedale which Mr. Bangs recognizes as of the same type. In the article referred to above, he characterizes *labradorius* as "the blackest of the American black-and-white-backed three-toed woodpeckers." "Crown patch of ♂ darker yellow, about ochre yellow." This form has not, however, been recognized by the American ornithologist's union.

Colaptes auratus luteus Bangs.

NORTHERN FLICKER.

Uncommon summer resident in southern half of Labrador, occasional as far as Hudson Strait.

Stearns on the southern coast found it "not rare, at least as far as L'Anse Claire." Low says a single specimen was seen near the Grand Falls of the Hamilton River on May 30th. Spreadborough reported a few as far north as Fort George, James Bay, in June, 1896, and Packard states that a "straggler was procured from the mainland near Akpatok Island, Hudson Strait, October, 1882. Reported common summer resident to Northwest River."

Chordeiles virginianus (Gmel.).

NIGHTHAWK.

Common summer resident in southern Labrador locally.

Stearns says it is "common at Natashquan." Low reported:

“Very rare on upper Hamilton River. Single specimen seen near the Grand Falls, May 31st. Common at Mistassini and along Romaine River.” He records its arrival at Lake Mistassini the last of May.

Trochilus colubris Linn.

RUBY-THROATED HUMMINGBIRD.

Very rare summer visitor.

Audubon states that “a few were seen by me in Labrador.” Turner records that a male was seen on July 17, 1882, on the hill-top (825 feet elevation) back of the station at Davis Inlet.

Tyrannus tyrannus (Linn.).

KINGBIRD.

Rare summer resident in southern Labrador.

The only record we have of this bird for Labrador is Audubon's statement ('39, p. 420): “I have found it breeding in . . . Labrador.” As this species is common locally in Newfoundland and Cape Breton it might be expected in southern Labrador.

Sayornis phoebe (Lath.).

PHOEBE.

Very rare summer resident in southern Labrador.

The only record we have for this bird is Audubon's statement ('39, p. 424): “I have found it in Labrador [where] it breeds.” There is no reason why this species should not occur in southern Labrador as Macoun records it for Newfoundland and Quebec.

Nuttallornis borealis (Swains.).

OLIVE-SIDED FLYCATCHER.

Very rare summer resident in southwest portion.

Audubon again is the only authority for this species. He says,

('35, p. 425): "I found this species . . . on the Magdalen Islands, and on the coast of Labrador." We should expect to find this species in southwestern Labrador where the trees were of any size. Spreadborough observed one near Moose Factory just outside the limits of Labrador.

[*Contopus virens* (Linn.). WOOD PEWEE. — Audubon states ('40, p. 232): "I have seen them in Labrador," but in his Labrador journal his only mention of this bird is on June 22, 1833, at American Harbor, where he enters: "I heard a Wood Pewee." As he was not familiar with the Yellow-bellied Flycatcher some of whose notes suggest those of the Wood Pewee, and as the latter bird is more southern in its distribution, we have omitted it from the list.]

[*Contopus richardsonii* (Swains.). WESTERN WOOD PEWEE. — Audubon's account of flycatchers in Labrador is considerably confused. He speaks ('35, p. 93) of a species smaller than *Muscicapa acadica* as abundant in Labrador and described in the "Fauna Boreali-Americana" as *Tyrannula richardsonii*. And again ('39, p. 300): "Whilst in Labrador, I examined several nests of the Short-legged Pewee." It is reasonable to suppose that these were either the Alder or the Yellow-bellied Flycatchers.]

***Empidonax flaviventris* Baird.**

YELLOW-BELLIED FLYCATCHER.

Common summer resident in southwestern Labrador.

Frazar picked up one dead at Cape Whittle in early July. Low states that it is "common at Lake Mistassini. Not seen at Hamilton Inlet." At Lake Mistassini Low noted their arrival between the 1st and 15th of June. Macoun records it as breeding. It is probable, as already stated, that Audubon found this species but gave it another name.

***Empidonax traillii alnorum* Brewst.**

ALDER FLYCATCHER.

Not common summer resident in southwestern Labrador.

We have ventured to include this species on the strength of Audubon's statement ('39, p. 289) that he found *Muscicapa pusilla* "on the coast of Labrador in considerable numbers." One nest was found

in July in a bush. It contained five speckled eggs. Since the nest of the Yellow-bellied Flycatcher is usually built on the ground, the presumption is that Audubon's nest was that of the Alder Flycatcher.

Otocoris alpestris (Linn.).

SHORE LARK; HORNED LARK; "SKYLARK"; "MUD LARK."

Abundant summer resident throughout the Arctic zone, especially on the coast.

This race of Horned Lark is found breeding wherever there is barren ground in Labrador. Thus it is found on the southern coast from its eastern extremity to the point where the forest growth comes down to the shore near the Mingan Islands; and on the entire eastern, northern, and western coasts. Low states that it is common on the barrens of the upper Hamilton River, where he obtained eggs on June 19th. Macoun says it is common and breeds on the rocky islands of James Bay from Moose Factory to Richmond Gulf. Breeding birds have been examined from Fort Chimo and Davis Inlet. A set of three eggs was taken at Great Whale River, James Bay, in June, 1899, by A. P. Low; another of three eggs on an island in James Bay on June 18, 1896, by Spreadborough. The latter explorer failed to find it, however, between Richmond Gulf and Ungava Bay.

Audubon records in his Labrador journal the drawing of three young Shore Larks "the first ever portrayed by man" at Bras d'Or on July 29, 1833. He adds: "I saw one beautiful male in full summer dress which I secured and have drawn with a portion of moss. I intend to add two drawn in winter plumage."

We found Horned Larks common in the Arctic coastal region all along the Labrador shore, and we obtained ten specimens from Cape Charles on the south to Fanny's Harbor, between Hopedale and Nain, on the north. We observed them on the southern coast near Cape Charles and also at Flower's Cove in Newfoundland on the southern side of the Straits of Belle Isle, where we obtained two more specimens. All our specimens and all the birds observed were of the same type, with nearly pure white superciliary lines and pale yellow throats. The superciliary lines although nearly pure white, all show on close scrutiny a very faint tinge of yellow, especially just above the eye. This tinge of yellow varies in amount in our specimens and

is never pronounced. In some it is nearly absent. On the throat the yellow tinge is present although faint in all the specimens and is most marked medially and close to the bill. The edges of this patch below and behind the black markings and therefore well on the side of the head, are in all the specimens nearly pure white. In the color of these markings, therefore, the birds resembled *praticola*, not *alpestris*.

Two specimens in the Bangs collection from Lance au Loup on the southern Labrador coast taken on May 3 and May 14, 1899, although both females, have a more pronounced yellow tint in both the throat and the superciliary markings. Examination of specimens in Mr. Brewster's collection shows a fainter yellow in the specimens taken in April in Massachusetts than in those taken in October.

As to measurements it will be seen from those given below that the birds are large and correspond in size to the northern race, *alpestris*, and not to *praticola*.

All our specimens show considerable wear in the feathers, for all were taken just before the annual August moult.

Measurements in millimeters of Otocoris alpestris.

No. ¹	Sex.	Locality.	Date.	Wing.	Tail.	Tarsus.	Bill from nostril.	Exposed culmen.
1164	♂	Cape Charles, Lab.	July 30, 1906	111.3	72	22.5	11.8	13.9
1162	♂	Battle Harbor, Lab.	July 14, 1906	109	73	23	11.5	12.8
1165	♂	"	July 14, 1906	111.2	69.2	21.8	10.5	12
1167	♂	"	July 11, 1906	109	71	23.4	11.5	13
1166	♂	Pack's Harbor, Lab.	July 24, 1906	112.8	76	22.5	10	12
1163	♂	Fanny's Harbor, Lab.	July 21, 1906	111.5	74	20	10	12
Average of six adult males				110.8	72.5	22.2	10.9	12.6
1161	♀	Flower's Cove, NF.	July 9, 1906	104	65	19.6	11	13
1168	♀	Battle Harbor, Lab.	July 27, 1906	105	64.2	20.5	10.8	12.2
1169	♀	Holton, Lab.	July 19, 1906	101	60.4	20.8	10	11.8
1170	♀	Long Tickle, Lab.	July 20, 1906	102	61	20	10.5	12
Average of four adult females				103	62.6	20.2	10.5	12.2
1160	♂ juv.	Flower's Cove, NF.	July 9, 1906	96	51.8	18	9.5	10.2
1171	♂ juv.	Cape Charles, Lab.	July 30, 1906	104	64	21	9.9	12
Average of two young males				100	57.9	19.5	9.7	11.1

From these considerations we have concluded that the Horned

¹ Collection of Dr. C. W. Townsend.

Lark of the Labrador coast, both eastern and southern, is the northern race, *Otocoris alpestris alpestris*, and that the difference observed in the tint of the yellow in the plumage is due largely to fading, and to some extent to wear as the bases of the yellow feathers are white. The fading is least where the feathers are most shaded under the chin.

We have measured ten worn feathers taken from the throats of our July birds and ten unworn feathers taken as nearly as may be from the same region of birds shot on the Massachusetts coast in October and December. The average length of the first set is 5.95 mm., of the second set 8.25 mm. showing a loss of 26 percent in the length of the feathers by wear.

It is evident that besides changing the color of the plumage of the bird, a fact which is well known, wear must make a great difference in the warmth of the plumage. The Horned Lark wears its thinnest clothes during the time when its love passions are at their summit and when the thermometer is highest. As its love cools and the days begin to grow shorter and cooler it dons its thick winter clothes which do not begin to show much wear until the days are growing warmer and love begins to stir the blood with its old heat.

Although part of the southern coast of Labrador is of a different geological formation from the eastern coast it belongs in the same life zone, namely, the Arctic, as shown by the same flora and by the presence of the American Pipit as on the eastern coast. To the west of Mingan the Hudsonian region as shown by the forest growth reaches the coast, and the country beyond is not suitable for either of these birds except possibly in limited areas. Thus Merriam (Bull. Nuttall orn. club, vol. 7, 1882, p. 234) says of the Pipit at Point des M^onts, near Godbout on the Gulf of St. Lawrence (about 50 miles southwest of the Labrador boundary): "Tolerably common summer resident and doubtless breeds." Of the Horned Lark he says: "First seen April 21, 1882, after which they were common for about three weeks and then disappeared. I found a young one, dead, at Godbout in July, 1881." With the exception of this record no larks have been found breeding west of Mingan. Between Montreal and Quebec the Prairie Horned Lark is found breeding, and as far as we can discover this is the most eastern breeding place on the north side of the St. Lawrence for this bird.

Macoun says of the Prairie Horned Lark: "A common summer resident in the Montreal district. They have been found breeding

here before the winter's snow has melted off the ground; they arrive in February and leave in November. (Wintle.) Occasional at Quebec. (Dionne)."

Our brief examination at Flower's Cove on the Newfoundland side showed an Arctic flora and the presence of the same Horned Larks as on the opposite side of the Straits, some fifteen miles distant.

We have discussed this subject at some length for H. C. Oberholser ('02, p. 828 and map) has extended the breeding range of the Prairie form (*praticola*) along the whole south coast of Labrador to the entrance of the Straits of Belle Isle. This he has done on the strength of one specimen obtained by the Bowdoin college expedition to Labrador in 1891, which certainly seemed to belong to this race (*praticola*). This view was fortified by Audubon's description and by his plates of a bird taken at Bras d'Or, southern Labrador, in 1833. Here the throat and frontal band are white. These facts were noted by Mr. A. H. Norton in his report on the birds collected by the Bowdoin college expedition. The one specimen on which so much was made to depend, was taken on July 14, 1891, at Chateau Bay, but a few miles to the westward of Cape Charles where we obtained specimens and considerably to the east of Lance au Loup, the locality of the Bangs specimens. Mr. Norton says: "It is a female in somewhat worn nuptial dress and is quite typical [of *praticola*], though nearly reaching the maximum measurements of its sex. The wing measures 99 mm.; bill from nostril 9.9 mm. . . . Though the characteristics of this specimen are so well marked that its identity is not questionable, yet on account of the interest attached to it, it was forwarded to the United States National Museum for verification. Mr. Richard Rathbun, Assistant Secretary, informed me that it had been determined by Mr. H. C. Oberholser as being of this form [*praticola*]."

We forwarded all our specimens, together with the two from the Bangs collection from southern Labrador, to Mr. Oberholser and he identified them all as *alpestris*. We have also examined the Bowdoin college specimen and find that it corresponds to ours. In fact although it is rather a small specimen of a female *alpestris* its markings are no whiter than those of our female specimens. We find it to measure: wing, 99 mm.; tail, 62 mm.; tarsus, 19 mm.; bill, 13 mm.; from nostril, 10 mm.

Mr. Oberholser under date of January 8, 1907, writes us as regards our specimens: "They prove to be *alpestris* as I have indicated on

the labels. This is simply another proof of the difficulty and danger of attempting to identify specimens of *Otocoris* from new localities! As I remember, Mr. Norton's female was rather small and unusually grayish; but your good series leaves no room for doubt."

Of the Bowdoin college specimen he writes (February 4, 1907): "It is certainly only a specimen of *alpestris*, probably somewhat aberrant."

In this connection we wish to speak of the recent extension of the breeding range of *praticola* to the east. This was a subject about which one of us wrote in "The birds of Essex County" (Townsend 1905, p. 235) and the Auk (vol. 21, 1904, p. 81). In the Auk (vol. 23, 1906, p. 225) Mr. Norton controverted this view basing his argument primarily on what he believed to be evidence of the existence of this form even in Audubon's time on the southern Labrador coast as well as its occurrence there today. As we have just shown, Mr. Norton was in error as regards this. He also refers to Maynard's record for eastern Massachusetts in July, 1869. A single case is of course of trifling value and when we consider that the numerous ornithologists in the well studied part of eastern Massachusetts have only within recent years found this bird breeding, it seems probable that some recent change in its range has occurred. The evidence in New Hampshire and Vermont is also strongly suggestive.

We observed the flight song of the Horned Lark at various places along the coast, and made an especial study of it at Great Caribou Island, Battle Harbor. The bird suddenly mounts high into the air, going up silently in irregular circles, at times climbing nearly vertically, to such a height that he appears but a little speck in the sky, several hundred feet up. Arrived at this eminence he spreads his wings and soars, emitting meanwhile his song, such as it is — one or two preliminary notes and then a series of squeaks and high notes with a bit of a fine trill. The whole has a jingling metallic sound like distant sleigh bells, although the squeaks remind one strongly of an old gate. The whole effect, however, is not unpleasant, — even melodious. Having finished one bar of his song, he flaps his wings a few times, closes them and sails again, repeating the song. One bird repeated his song twenty-four times and remained in the air one and a half minutes; another remained in the air three minutes, during which he repeated his song thirty-two times. During all this time the bird is flying in curves or irregular circles, sometimes in straight

lines, or if the wind be strong, he heads up into it and remains in the same place. The performance ended, he plunges head foremost down to the earth, reaching it in a marvelously short space of time. The descent is as silent as the ascent.

Several times we heard the birds singing above us out of sight in the fog, and occasionally they sang from a rock the same song, but with less energy and abandon. In one case the bird appeared to be singing as he went up, and he disappeared into the fog but it is possible he had already attained the summit of his flight.

The familiar sibilant squeaking call note was commonly used, and also a note which we do not remember to have heard during the migration in Massachusetts. This sounded like *zzurrit* and was often preceded by another note thus, *whit-zzurrit*. These notes were occasionally so soft and sweet that they recalled the trilling whistle of the Least Sandpiper.

At Frenchman's Isle on July 16th, we found the nest of a Horned Lark composed of dried grass and a few large feathers, deeply sunk into the reindeer lichen and moss in a level piece of ground. There was no shelter or covering of any sort. It contained three dark-skinned young, clothed sparingly in sulphur-yellow down. Their eyes were not yet open. There was also one egg containing a large embryo. The egg was gray in color, thickly spotted with fine dots, especially at the circumference of the larger end, where they formed a distinct brown ring. Birds in juvenal plumage, of which we saw a number, with their spotted backs were difficult to distinguish among the lichen-covered rocks. In the adults the "horns" of the males could be seen at a considerable distance and distinguished them from the females. The Horned Lark is not so confiding as its arctic companion the Pipit, and unlike that bird it was never seen among the tilts and fish stages.

[*Otocoris alpestris praticola* Hensh. PRAIRIE HORNED LARK.—Erroneously recorded for southern Labrador by Norton (see *O. alpestris*).]

***Perisoreus canadensis nigricapillus* (Ridgw.).**

LABRADOR JAY.

Abundant permanent resident in forested regions.

Wherever there is tree growth there this jay is found in Labrador.

Its tameness and thieving qualities are noted by Cartwright. He makes frequent complaint of its robbing his traps of bait and occasionally he catches one in a trap. On November 5, 1770, he caught two with bird lime. On November 7, 1770, he notes: "The two jays which I caught on the fifth instant, I have hitherto kept confined in a cage; but they now have the liberty of the room; and I was greatly surprised to see them fly to me for food, and familiarly perch upon my hand; they even suffered me to stroke them with one hand, while they were eating some pork fat out of the other."

In another place (vol. 2, p. 151) on March 12, 1776, he speaks of the jay "which chants its short coarse tune every mild day through the whole winter." And he says this is the only song he had heard that winter until the day when the "cross-beaked linnets" sang. It is probable that the song of the Labrador Jay is very similar to that of the Canada Jay which is thus described by O. B. Warren (Auk, vol. 16, 1899, p. 14): "On pleasant days the male trilled from a spruce top a song of sweetly modulated notes wholly new to my ears. He always sang in *sotto voce*, and it required an acquaintance with the songster to realize that he, though so near, was the origin of those notes which seemed to come from somewhere up in the towering pines which surrounded this strip of swamp, so lost was the melody in the whispering, murmuring voices of the pines."

Seeböhm ("Birds of Siberia," 1901, p. 33) speaking of the Siberian Jay (*Perisoreus infaustus*) says: "Their song was by no means unmusical, a low warble like that of the starling, but not so harsh."

Spreadborough found the Labrador Jay throughout Ungava to Ungava Bay. Turner says it is a resident and breeds at Fort Chimo; Weiz says it breeds at Okkak; Low found it very common throughout the interior and he records a nest with four eggs at Rigolet, March 24, 1894, and one with three eggs from the Northwest River about the same date. The young were able to fly from the nest at Grand Falls on May 18th. Audubon says he found the young following their parents on June 27, 1833, in southern Labrador.

Frazar noted in the second week of September an "immense migration" of jays. Flocks of a dozen to fifty were constantly passing. The direction of flight is not stated but it was apparently to the south.

Bendire ('95, p. 392-393) gives an interesting account of this bird copied from the manuscript notes of L. M. Turner from which we extract the following:

"This Jay is an abundant resident throughout the entire region wherever timber is to be found. I observed this bird at Rigolet, Davis Inlet, George's River, Whale River, Fort Chimo, and far in the interior. At certain seasons it is more plentiful than at other times; after August it is very abundant until the next May, and is then very scarce until the following September. . . . The Indians will not be tempted to procure the eggs of this bird under any circumstances. They believe that if a person sees the eggs in the nest, and especially if he counts them, some great misfortune will befall him. Repeated inquiry among them elicited the statement that they had never seen the eggs, and knew nothing about the number laid.

"Its general habits are similar to those of the other members of this family. It is one of the greatest nuisances the trappers have to contend against, and one of these assured me that he had taken fifteen of these birds from a line of less than forty traps in a single day, and with good reason he called this bird a 'wolverine' with feathers on!

"I have never found the Labrador Jays in flocks, although several may be in the neighborhood, and on a single occasion only I saw five perched in one tree. If a gun be fired it is certain to cause a Jay to investigate it, and I think experience has taught him that food may be procured at such times."

We saw the Labrador Jay only at Rigolet on July 18th, about six individuals in all, and we procured an adult male and one immature bird. The habits and notes appeared to be the same as in *canadensis*. We heard them emit a considerable variety of squeaks, whistles, and groans. The young are dark plumbeous in color, and look very much like a large Cat-bird; and they frequently acted in a similar manner, hopping about with their tails cocked up between their wings.

A young ♀ taken by us at Rigolet on July 18th, appeared blacker below than a young ♀ *canadensis* taken at Hawke's Bay, Newfoundland on July 8th. In the young *canadensis* the white cheek line was noticeable, while in *nigricapillus* it was confined almost entirely to one point at the base of the bill. In *canadensis* there was a faint white mark on the forehead close to the bill. This was absent and the region almost black in our immature specimen of *nigricapillus*.

[**Perisoreus canadensis** (Linn.). CANADA JAY.—The earlier records of the Labrador Jay were entered under this heading and Macoun refers the bird of interior and western Labrador to this form, but in the absence of specimens we have placed it in the doubtful list.]

***Corvus corax principalis* Ridgw.**

NORTHERN RAVEN; "CROW."

Common permanent resident.

While the American Crow is rare and limited to the southern part of Labrador the Raven is a common resident everywhere. It breeds along the entire coastline and in the interior. Cartwright complained that Ravens stole the bait from his traps, but occasionally were caught. Audubon found a nest at Little Mecattina Harbor in July, 1833, with full-fledged young on July 29th. He speaks of seeing flocks of 40 or 50 or more after the breeding season. Coues found a nest at Henley Harbor and Turner found them breeding at Fort Chimo. Low says they are a common resident throughout the interior and Spreadborough found them in pairs throughout the country. He shot one at Lake Mistassini on May 30, 1885.

We saw two Ravens at West St. Modest, one at Henley Harbor, one at Snug Harbor, three at Great Caribou Island, and two or three at Cape Charles. At Great Caribou Island on July 27th, we found the nest of a pair of these birds on a cliff on the westerly side of the island. The nest was in an inaccessible recess about 80 feet above the base of the cliff and 20 or 30 feet from the top. It was as large as a great clothes-basket and made of twisted and weather-bleached branches of fir and spruce. The rocks about were painted white with excrements. A full-fledged young was clinging to the rocks near, fluttering its wings to be fed, while the old ones which at first flew about croaking at our intrusion, carefully kept out of gunshot and disappeared. The old birds were everywhere very wary.

Mr. Schmitt has recorded the breeding of Ravens at Nain in mid-April.

***Corvus brachyrhynchos* C. L. Brehm.**

AMERICAN CROW.

Uncommon summer resident on the southern coast.

Audubon noted a few Crows on the southern coast. Stearns said a few were occasionally to be seen as far north and east as Esquimaux River. Frazar said Crows were not rare along the southern coast and that none wintered. Palmer considered them "quite common"

at the Mingan Islands. Unlike the Raven, the Crow in these northern regions where no corn is grown, is very tame. Both Verrill and Brewster noted this in Anticosti, and it is a marked characteristic at Cape Breton.

[**Dolichonyx oryzivorus** (Linn.). BOBOLINK.—It is erroneously stated by Nuttall that this bird is found "from Labrador to Mexico."]

[**Molothrus ater** (Bodd.). COWBIRD.—An erroneous record was made by Low ('96, p. 326) that the Cowbird is "common at Lake Mistassini." Dr. J. Macoun states in a letter to us, dated March 13, 1906, that this record referred to the Rusty Grackle.]

Xanthocephalus xanthocephalus (Bonap.).

YELLOW-HEADED BLACKBIRD.

Accidental visitor.

We are able to add this species to the list of Labrador birds on the strength of the following note sent us on November 18, 1906, by Mr. Ernest Doane of West St. Modest: "About the 15th of September this year I saw a female Yellow-headed Blackbird. About the same date eight years ago I shot one, they being the only two I have ever seen here."

Euphagus carolinus (Müll.).

RUSTY BLACKBIRD.

Common summer resident except in the Arctic zone.

Audubon says that many breed in Labrador, beginning to lay eggs about the middle of June. Frazar recorded that "five, evidently just arrived, were seen in a swamp at Esquimaux Point the latter part of May. They did not remain." Coues found the young just from the nest on July 24th. Turner says: "Common. Breeds at Fort Chimo." Young, July 10 1884. Low says: "Common throughout the interior." Macoun adds: "Tolerably common in marshes from Richmond Gulf to Ungava; seen in flocks in the interior, July 24th. (*Spreadborough*); . . . Common and breeding at Lake Mistassini. (*J. M. Macoun.*)" Low gives the date of arrival at Lake Mistassini as May 14th. Frazar mentions that this species occasionally builds its nests in the tall wigwam-shaped woodpiles.

We did not see any Rusty Grackles in Labrador, but obtained the skin of a bird from the Eskimos at Hopedale.

***Pinicola enucleator leucura* (Müll.).**

CANADIAN PINE GROSBREAK; "MOPE"; "SPRUCE-BIRD"; "BULLFINCH."

Common summer resident, wintering in southern forested portions.

Coues, Weiz, and Bigelow speak of this bird as common in summer back of the coast where there are woods. Packard records it as "abundant in summer only at Fort Chimo, where it breeds; resident south of 'Height of Land'." Stearns found it common in fall and winter on the southern coast. Low found it common on the upper Hamilton River and records one seen on May 1st. Macoun says: "One seen at Richmond Gulf, July 1st, 1896; not again observed in Labrador. (*Spreadborough*.) . . . Common in the winter at Lake Mistassini, Que. (*J. M. Macoun*.)"

Cartwright on March 20, 1776, says in his journal: "I shot an American bullfinch, which is as large as an English thrush. They come here in spring to breed and leave us at the latter end of the summer; this bird was full of partridge-berries." Also on March 30, 1778: "I saw a bulfinch for the first time this year."

We saw the skin of a Pine Grosbeak taken near Hopedale by an Eskimo, and Mr. Schmitt at Nain told us it bred there.

***Carpodacus purpureus* (Gmel.).**

PURPLE FINCH.

Common summer resident in southern Labrador.

Audubon "found this species from Labrador to Texas." Kumlien observed it off Resolution Island. Packard says it is "plentiful in southern portions."

***Loxia curvirostra minor* (Brehm).**

AMERICAN CROSSBILL.

Uncommon summer resident; may winter.

This species is more southern in its distribution than *leucoptera*.

Audubon says: "While in Labrador I was much disappointed at not finding a single bird of this species, although the White-winged Crossbill was tolerably abundant there." Macoun says that a set of 4 eggs was taken by L. Dicks at Cartwright on April 20, 1895, and that a bird of this species that had flown on board ship was taken in Hudson Strait.

***Loxia leucoptera* Gmel.**

WHITE-WINGED CROSSBILL.

Common permanent resident.

Weiz found it breeding at Okkak. Packard states that it is "resident and breeds in central portions; seen at Fort Chimo in winter only." Low found it "common on Hamilton River in March and April." Macoun says it is found in winter at Lake Mistassini and that a set of 4 eggs was found at Sandwich Bay on April 9, 1894.

On March 12, 1776, Cartwright records in his journal: "I was pleasingly entertained with the melodious singing of the cross-beaked linnets; they remain all winter with us, and feed on the seeds of the black spruces. What made their music more agreeable, was the novelty; this being the first time that I have heard the note of any bird this year, except the jay." Again on March 29, 1778, he says: "I heard some crossbeak linnets sing for the first time this year." He probably referred to the White-winged Crossbill. The full song of this bird is certainly very "melodious," and one of the most delightful of bird songs.

***Acanthis hornemanni* (Holb.).**

GREENLAND REDPOLL.

Abundant winter visitor in the northern portions.

Turner found this species "very abundant in winter," in Ungava occurring from September 1st to May 15th.

***Acanthis hornemanni exilipes* (Coues).**

HOARY REDPOLL; "PEOGWAK" (Eskimo).

Abundant permanent resident in northern Labrador.

Turner found it breeding plentifully at Fort Chimo and obtained

nests and eggs. Macoun says that a large series of eggs of this species was taken at Nachvak in 1895. Also one set of five eggs and nest were taken there by G. Ford in 1897, and two eggs at Fort Chimo on June 13, 1896.

***Acanthis linaria* (Linn.).**

REDPOLL; "ALDER-BIRD" (Stearns).

Abundant permanent resident.

The Redpoll is found and has been noted breeding throughout the length and breadth of the Labrador peninsula. During the fall and winter it collects in large flocks. During the summer it is not so gregarious.

Macoun says: "During the last week of May and early in June, 1899, Mr. A. P. Low found this bird breeding abundantly at the mouth of the Great Whale River, Hudson Bay, and I secured close upon 150 eggs of this species that were then collected. The nests were built low down in stunted willows, not more than two or three feet from the ground and contained five or six eggs each. I have also several sets that were taken at Cartwright, Labrador, by the late Lambert Dicks during June, 1895. . . . (*W. Raine*)."

Kumlien says that "off Kikkertarsoak Islands, on the Labrador coast, as much as one hundred miles from land, these birds came aboard of the schooner in a gale. They were all young birds." Mr. Schmitt at Nain told us that two kinds of Redpolls nested there.

We noted 57 Redpolls on our trip north and 77 on our return, most of them at Great Caribou Island, Cape Charles, St. Lewis Inlet, and Rigolet. They were seen singly or in pairs, and occasionally in small loose flocks up to 8 or 10. Their most frequent call note was a rough *chug* or *chee* resembling very closely the call note of the White-winged Crossbill. They also frequently emitted a sweet Goldfinch-like note *deé-ar*. They were constantly singing either from the top of a spruce or fir or in the air, flying in irregular circles, flitting about from place to place, and frequently dropping suddenly into a tree where they continued their song. The song recalls the song of the White-winged Crossbill but is much inferior in quality. It is a succession of *chugs* interspersed with *deé-ars* and *chee-chee-chees*, with every now and then a fine rattling trill.

They were difficult birds to observe not because they were shy, for the reverse was the case, but because they were so restless. We saw several full-fledged young on July 28th at Cape Charles.

[*Aegiothus fuscescens*.— This "new species" described by Coues ('61, p. 222-223) from Labrador specimens was evidently *Acanthis linaria*.]

***Acanthis linaria rostrata* (Coues).**

GREATER REDPOLL.

Common winter visitor; rare summer resident in north.

Macoun gives this note: "A few pairs breed in northern Labrador, though its summer home is in Greenland. I have three sets of eggs of this bird that were collected by Mr. Ford at Ungava Bay, northern Labrador, June 15th, 1894. The nests were built in willows two or three feet from the ground and contained five eggs each, which are easily distinguished from [those of] the common redpoll by their larger size. . . . (*W. Raine*)."

Eifrig ('05, p. 240) says: "A specimen of what seems to be this species was taken on the vessel off the Labrador coast, Sept. 4, 1903."

***Astragalinus tristis* (Linn.).**

AMERICAN GOLDFINCH.

Accidental visitor in southern Labrador.

The only definite record is by Kumlien of "an adult male caught on shipboard, August 22, 1877, off Cape Mugford, Labrador."

***Spinus pinus* (Wils.).**

PINE SISKIN.

Uncommon summer resident in southern Labrador.

Audubon found the Pine Siskin abundant in Labrador. He says: "At the Harbour of Bras d'Or, on the coast of Labrador, in the end of July, we met with a great number of these birds. They were then accompanied by their young, and moved in flocks composed of a single

family, or at most of two." Bigelow saw a few south of the tree line. Macoun records several nests with sets of eggs taken at Hamilton Inlet; one set was taken on June 17, 1895.

We saw only one Pine Siskin in Labrador, a single bird that flew over Battle Island on July 15th.

***Passerina nivalis* (Linn.).**

SNOWFLAKE; SNOW BUNTING.

Abundant summer resident in the north; winter visitor in the south.

Packard says that the Snow Bunting is abundant at Fort Chimo and breeds on the islands in Ungava Bay, occasionally on the mainland. Weiz says it breeds at Okkak. Macoun records a large series of eggs from Nachvak taken by Mr. Gray, in 1897. Bigelow says it appeared at Port Manvers on August 10th, after which it was abundant. J. M. Macoun noted that it left Lake Mistassini for the north about May 10th. Between August 10th and May 10th would then be the season when the Snow Bunting is found wintering in the southern half of the peninsula.

We saw no Snow Buntings although we were told by Mr. Schmitt at Nain that a few spent the summer and bred there. Most if not all of this species go farther south in winter. He said they arrived from the south early in March and were abundant until the end of May. A few remained and bred in mid-June.

***Calcarius lapponicus* (Linn.).**

LAPLAND LONGSPUR.

Abundant summer resident in the north; winter visitor in the south.

Packard says of this species: "Abundant at Fort Chimo. Breeds near the mouth of the Koksoak River and on the larger islands in Ungava Bay." Weiz found it breeding at Okkak. Bigelow says it breeds from Nachvak, northward. Macoun records three sets of eggs from Nachvak. Stearns found it rather common in winter in southern Labrador, and Low says it is common on the Hamilton River in early spring. Spreadborough saw one on an island in James Bay on June 15, 1896, and not again until September. He found it in large numbers on the barren-grounds below Fort Chimo.

We saw a pair of these birds evidently breeding at Holton, just north of Hamilton Inlet, on July 19th. Mr. Schmitt at Nain told us that the Lapland Longspur arrived at that place early in May and bred in mid-June.

[*Passerculus princeps* Mayn. IPSWICH SPARROW.—The only known breeding place for the Ipswich Sparrow is Sable Island. We were unable to visit the sand dunes at Blanc Sablon and near Bradore Bay where it seems possible this bird may be found. We have learned that there are dunes at L'Anse aux Dunes, sand banks at the mouth of the Mingan River, a sand beach six miles long from Mingan west to Long Point; also a sand beach at Cape Porcupine south of Hamilton Inlet, but as yet there is no evidence of the presence of this species at such places on the Labrador coast.]

Passerculus sandwichensis savanna (Wils.).

SAVANNA SPARROW; "CHIP-BIRD."

Very common summer resident.

The Savanna Sparrow breeds everywhere in the open treeless regions of Labrador especially near the coast. Frazar speaks of it as the commonest land bird in southern Labrador. Low found it "very common" on the upper Hamilton River and obtained eggs on June 24th. Audubon found a nest with two eggs near Cape Whittle, on June 30th. Packard says it is "common throughout the region. Breeds at the mouth of the Koksoak River and at Davis Inlet." Coues says it is abundant in meadows and near the seashore, and it was still in Labrador on September 1st. Bigelow says it leaves Labrador the last of August and first of September. Audubon says it leaves early in September. Spreadborough found it common on the shores of James Bay to Richmond Gulf, but no more were seen in crossing northern Labrador till Fort Chimo was approached.

We found this sparrow common all along the southern and eastern coasts. At Battle Island there were two pairs with their young. On Great Caribou Island we saw four or five pairs. In the forested region of Rigolet we saw none. We were struck by the dark, almost black backs of the Labrador bird and the dark and clear-cut spots on the pure white of their breasts. We shot half a dozen specimens. Stearns ('90) says of the Savanna Sparrow: "White very clear, the dark inverted arrowpoints quite distinct. . . . One specimen alone had the

buffy suffusion covering the breast." He mentions examining thirty specimens. He also speaks of a small tuft of white feathers at the base of the primary coverts.

Reginald Heber Howe, Jr., gave the Labrador bird a subspecific rank as *Passerculus sandwichensis labradorius* but this form was not recognized by the American ornithologists' union. His description is as follows:

"*Type*, from Lance au Loup, Labrador, No. 4479, adult male. Collection E. A. & O. Bangs. Collected May 17, 1899, by Ernest Doane.

"*Geographical Range*: Labrador.

"*Subspecific Characters*: The largest of the *Passerculus sandwichensis* races. Wings, tail and tarsi longer than in *savanna*. Bill shorter and thicker. Upper parts uniform grayish black, with but little trace of rufous. Distinct white median line on crown, and with a great deal of bright yellow about the head. The eye line and ring, forehead, lores and auriculars being strongly tinged.

"*Remarks*: There is no difficulty in separating the two races *savanna* and *labradorius* on account of the greater size of the latter, their wing measurements showing no overlapping."

He had at this time two adult birds from Labrador.

We sent our specimens to Mr. Oberholser, at Washington, who kindly examined them and wrote us as follows, under date of February 4, 1907: "The Savanna Sparrows I have compared carefully with a large series in the collections here in Washington, and I cannot find any substantial difference worth recognizing by name. It is true they *average* very slightly darker and very slightly larger than more southern birds, but the differences are altogether *too slight* and too inconstant, in my opinion, to warrant their subspecific separation. Their dark color is due in part to their worn condition, and in both this respect and in size I can match them with southern breeding birds. I am somewhat surprised myself, for I have always entertained a suspicion that *labradorius* was a good race, though I have never before made any actual comparison."

Zonotrichia leucophrys (Forst.).

WHITE-CROWNED SPARROW.

Abundant summer resident.

This is probably the most common sparrow in Labrador, as, although it is a bird of the Hudsonian zone it encroaches on the Arctic zone, breeding contentedly among the stunted fir and spruce bushes in sheltered ravines along the entire wind-swept coast as well as in the forested region of the interior. Audubon, Stearns, Frazar, and Palmer speak of it on the southern coast. Coues, Weiz, Packard, and Bigelow found it along the eastern coast. Turner found it "very plentiful" and "breeding abundantly at Fort Chimo." Low says it is "very common" on the upper Hamilton River and Spreadborough found it "very abundant from Richmond Gulf across Ungava to Fort Chimo."

Audubon says they reach Labrador about June 1st. Frazar observed them first at Esquimaux Point on May 18th, and Low noted them on May 16th on the upper Hamilton River. Audubon found a nest and five eggs on July 6th at American Harbor. Low obtained eggs on June 25th on the upper Hamilton River. Macoun records eggs from Whale River in June, four sets of four eggs each; one set of four taken at Fort Chimo in June; one set of four taken at Nachvak in June, and one set of three from an island in James Bay on June 23d.

We found the White-crowned Sparrow everywhere in Labrador not only on the bleak coast, wherever there were sheltering ravines but also in the forested region at Cape Charles, St. Lewis Inlet, Cartwright, and Rigolet. It was the common dooryard bird and was frequently to be seen hopping about the fish stages and tilts, where, without their shelter, we should not have expected to have found this bird of the Hudsonian zone. We even saw one singing from the cross-stay at the main-mast head of a schooner anchored close to the shore at White Bear Island, one of the bleakest outer islands. Mr. W. B. Cabot told us of seeing one hopping along the body of a sleeping Eskimo dog, picking at the flies that surrounded him. The call note of this bird as we heard it in Labrador was characteristic and easily recognized, a metallic *chink*. Its alarm note was a sharp *chip*. Its song we often heard even in foggy and wet weather. When singing in a tree the bird generally sat concealed near the trunk several feet from the top. We also heard the song from the sod-covered roofs of the houses and, as just mentioned, from the rigging of a schooner.

There is a long and somewhat mournful stress laid on the first note of the song and a buzz, not easily expressed in words, comes in near the end. We wrote the song down in various ways to memorize it as *more, wet-wetter-wet chézee*, or *wheéa, song a lét-zee* or *whee whit, whittle-wee-déwhee*, all of course very unsatisfactory. We saw full-fledged young on July 28th. They are very plain, spotted birds with but a faint grayish streak to suggest the glorious white crown of the adult.

Mr. Schmitt at Nain told us that this species arrived there on May 18th and laid eggs by the middle or end of June.

Zonotrichia albicollis (Gmel.).

WHITE-THROATED SPARROW.

Common summer resident in southern part.

Frazar thought this species arrived at Esquimaux Point on the southern coast about May 20th. Stearns found them everywhere common on the southern coast. Low reported them common at Lake Mistassini where they arrived on May 20th, and on the Romaine River. He heard them at Grand Falls, Hamilton River, which is the farthest north of which we have record.

We found four of these birds in the shelter of the woods at and near Mary Harbor, St. Lewis Inlet, on July 12th, and three in the woods near White Bear Bay, Cape Charles. In the woods of Cartwright and Rigolet we did not find them. The birds we observed were in full song.

Spizella monticola (Gmel.).

TREE SPARROW.

Common summer resident.

Audubon failed to find the Tree Sparrow in Labrador and Stearns speaks of it as occurring on the southern coast only in spring and fall. He records the latest date as October 12th. Packard says it is "common throughout the entire country. Breeds plentifully at Fort Chimo." Coues says it is "common in all wooded districts." Low states that it is "common everywhere. Breeds in great numbers on

upper Hamilton River. Seen May 31st, eggs June 21st." He records its arrival at Lake Mistassini on May 15th. Macoun says that none were seen on James Bay till reaching Fort George when they became common, across Ungava (Spreadborough). Quite common at Lake Mistassini (J. M. Macoun). Eggs in June, 1898, at Whale River. Bigelow records "a good many at Port Manvers." Mr. Schmitt told us that this species bred at Nain early in July.

Our experience with this bird in Labrador was rather peculiar. Although we were constantly on the lookout for it we failed to find it in such favorable localities as St. Lewis Inlet, Cartwright, and Rigolet, and we met with the bird only at Great Caribou Island near Battle Harbor, and at Cape Charles. On July 27th at Great Caribou Island which is almost entirely arctic in its characteristics we found some three pairs of these birds in small thickets of balsam fir and black spruce which in sheltered localities managed to reach a height of three or four feet. At and near Cape Charles on July 28th we saw 4; on July 29th, 10; on July 30th, 8; and on July 31st, 1. On Great Caribou Island the males were in full song and we saw no young birds. At Cape Charles the males were singing less frequently and we saw several immature but fully grown birds, one of which we took. The chestnut caps of the adults appeared to be very bright and the spot on the breast a deep black. The song was a simple one and easily expressed in words, and unlike, it seemed to us, the song of these birds heard in Massachusetts in the spring. We noted the song as *seet-seet*, *seetiter-sweet-sweet*, the last two notes lower than the first two. The birds were unsuspecting and allowed of close approach.

[*Spizella socialis* (Wils.). CHIPPING SPARROW.—This bird is not found in Labrador, although Nuttall makes the loose statement that it is found "from Labrador to the tableland of Mexico."]

***Junco hyemalis* (Linn.).**

JUNCO; BLACK SNOW-BIRD.

Generally uncommon summer resident throughout the peninsula; but common in some localities.

Palmer records "but one at Mingan." Stearns found it not rare

in southern Labrador in spring and fall but did not find it in numbers. Coues says: "Not as abundant as might be expected." Low says it is "common at Lake Mistassini, and upper Hamilton River. Seen May 29th. Eggs June 27th." Packard recorded that it is not seen in the Ungava district, but is common in eastern and southern portions of Labrador and breeds at Davis Inlet and Rigolet. Macoun records a "pair breeding at Fort George; only seen twice in crossing Ungava from Richmond Gulf to Fort Chimo (*Spreadborough*). . . . Abundant in summer at Lake Mistassini." Bigelow says it is "locally common as far as the tree line, particularly at Aillik," and Kumlien records "one obtained on shipboard off Belle Isle, October, 1878." Mr. Schmitt told us that a few bred at Nain the end of June.

We saw very few Juncos in Labrador and only at Cartwright and Rigolet. At the former place on July 17th, we saw two, at the latter on July 18th, we saw about eight, one of which, an adult male, we procured. We submitted this bird to Dr. J. Dwight, Jr., who found it a typical *hyemalis*.

***Melospiza cinerea melodia* (Wils.).**

SONG SPARROW.

Uncommon summer resident in southwestern part.

The only locality recorded for this bird in Labrador is Lake Mistassini. Low states it is "common at Lake Mistassini" and that it arrives there the last of May. Thinking that Lincoln's Sparrow might have been mistaken for the Song Sparrow, we wrote to Dr. J. Macoun who replied under date of March 13, 1906, as follows: "My son who was at Lake Mistassini . . . says that the Song Sparrow was a common bird there and not Lincoln's Sparrow."

The Song Sparrow probably occurs elsewhere in southwestern Labrador as Merriam lists it as "a rather common summer resident" at Point des Monts.

***Melospiza lincolni* (Aud.).**

LINCOLN'S SPARROW.

Common summer resident in southern part.

The discovery of this sparrow is recorded by Audubon in his Labra-

dor journal for June 27, 1833. The locality was American Harbor near the mouth of the Natashquan River. He says: "We shot a new species of Finch, which I have named *Fringilla lincolni*; it is allied to the Swamp Sparrow in general appearance, but is considerably smaller, and may be known at once from all others thus far described, by the light buff streak which runs from the base of the lower mandibles, until it melts into the duller buff of the breast, and by the bright ash-streak over the eye. The note of this bird attracted me at once; it was loud and sonorous; the bird flew low and forward, perching on the firs, very shy, and cunningly eluding our pursuit; we, however, shot three, but lost one. I shall draw it to-morrow." He named the bird after one of his party, Thomas Lincoln, of Dennisville, Maine.

Bigelow says the Lincoln's Sparrow is common as far north as Hamilton Inlet on the wooded parts of the coast. Turner, however, found it as far north as Fort Chimo where he states it is rare. He obtained a male there on June 10, 1883. This is the only record we have for the north of Hamilton Inlet. The bird does not seem to be found in the interior. Dr. John Macoun writes us, under date of March 16, 1906, that it is not found at Lake Mistassini, and that he has no record of its occurrence in the interior of northern (Labrador) Quebec.

We found Lincoln's Sparrow only at Mary Harbor on July 12th where we saw four; and at Cape Charles where on the 28th, 29th, and 30th of July we saw 4, 10, and 4, respectively. We had previously found it common at Bay of Islands, Newfoundland. It was everywhere very retiring, skulking among the thick growths of evergreens and only a few times did we hear it sing in Labrador. It sang as late at the 29th and 30th of July. In singing it keeps concealed so that it is very difficult to see the performer. The song that we heard was a wild, hurried warble, somewhat like that of the Purple Finch but quicker, ending at times with a fainter trill suggestive of a House Wren. Its call note was a sharp *chip* and it also occasionally emitted a *smack*, probably an alarm note.

Melospiza georgiana (Lath.).

SWAMP SPARROW.

Common summer resident in southwestern Labrador.

Audubon "found it plentiful in Labrador." In Anticosti just south of the Labrador region it was found in abundance by Brewster.

Passerella iliaca (Merr.).

FOX SPARROW; "RUSSINGEL"; "RED SINGER";
"RED THRUSH" (Stearns).

Common summer resident in southern Labrador; May 20 to September 1.

Audubon says: "They leave Labrador about the 1st of September in small groups, formed each of a single family. When in that country . . . I frequently observed them searching along the shores for minute shell-fish, on which they feed abundantly." Frazar says they "arrived at Esquimaux Point on May 20th, soon becoming common and rare again, evidently passing farther north to nest; but at Hegaska, on my return in August, I saw a pair with their young." Packard says: "Common along southern portions; young at Rigolet in June." Bigelow found a few at Aillik. Macoun says it is common from Moose River to Richmond Gulf; not seen crossing to Ungava; July 1, 1896, young able to fly (Spreadborough).

We found the Fox Sparrow common at Forteau, Cartwright, Rigolet, and Cape Charles. At Forteau we found them directly on the coast. The other three localities are all farther inland and Hudsonian in character. The bird was everywhere in full song even as late as July 30th at Cape Charles. The song seemed richer and fuller than the best song given by this species during the spring migration in Massachusetts. Its clear flute-like notes are somewhat ventriloquial in character, and as the bird sings generally from a concealed perch inside of a spruce or fir tree a foot or two from the top, it is often difficult to find the performer. We have written down the song very inadequately in words thus: *cher-ee, hear-her, hear-her, tellit*. Or *to-whip, to whee, oh-whee buzz tellit*, the last note short and faint and the main stress on the second and third bars.

The long drawn call note *stssp* so commonly heard in Massachusetts during the migrations, was rarely heard in Labrador. A short *chip chip* was occasionally emitted, and the bird when disturbed sometimes gave the usual alarm note, a loud *smack*, richer than that of the Junco and more like that of the Brown Thrasher. One individual who was *smacking* in a fir tree emitted faint sneezy notes with motions of swallowing between the *smacks*.

[**Pipilo erythrophthalmus** (Linn.). TOWHEE. — Audubon states that this bird occurs northward to Labrador, but gives no further note of it for Labrador. J. A. Allen's note in Packard ('91, p. 419) is: "Doubtless an error." We shall let it stand as doubtful.]

[**Zamelodia ludoviciana** (Linn.). ROSE-BREADED GROSBEAK. — Nuttall says: "On the dreary and desolate coast of Labrador Mr. Audubon found this species breeding commonly." This must be a mistake for Audubon ('35, vol. 2, p. 167) says: "I saw none in Labrador" although he found them in Newfoundland.]

[**Petrochelidon lunifrons** (Say). CLIFF SWALLOW. — Verrill found this species breeding in large numbers at Cape Eagle, Anticosti, in July, 1861. We have no records, however, for Labrador although it has doubtless visited that country.]

Hirundo erythrogaster Bodd.

BARN SWALLOW.

Very rare summer resident.

The only record is that of Packard ('91, p. 416): "Breeds at Northwest River at the head of Hamilton Inlet." The absence of barns and farms in Labrador perhaps accounts for the rarity of this bird. The locality mentioned above is the only one where cattle are kept.

Iridoprocne bicolor (Vieill.).

TREE SWALLOW.

Common summer resident locally.

Packard says it is "abundant throughout northern portions"; breeds at Fort Chimo. Low states that it is "common throughout the interior. Seen May 25th." He records it on May 10th at Mistassini.

Frazar says he saw two when he arrived on the coast on May 22d. Later in July, several passed his house at Cape Whittle. Palmer states they were "seen at . . . Mingan Islands though not abundant." Kumlien wrote that two followed the schooner for two days in succession off Belle Isle in August, 1877, and adds the query: "Where were they during the night?"

Cartwright records the arrival of two swallows on May 18, 1778. We saw not a swallow of any kind in Labrador.

Riparia riparia (Linn.).

BANK SWALLOW; SAND MARTIN.

Common summer resident in a few localities.

Audubon ('35) says that "many Sand Martins" were seen in Labrador and "it rarely begins to breed before the beginning of June." Weiz reported that it bred at Okkak. Mr. Goldsby, one of the Moravians, told us of finding a Sand Martin's hole with two eggs in a sand bank at Ogjuktok Inlet near Hopedale.

Ampelis cedrorum (Vieill.).

CEDAR WAXWING.

The only record for Labrador we have is that of Low: "Rare at Lake Mistassini." He found it there after the middle of June.

Lanius borealis Vieill.

NORTHERN SHRIKE; "BUTCHER-BIRD."

Not uncommon summer resident.

Packard says that it is not common at Fort Chimo, where it breeds; young out of nest June 30, 1884. It is said to be common in more southern parts. Low records that it is "common on Hamilton River; seen April 16th." Norton records a young female from Lake Melville, July 29th, in faded juvenal plumage. Cartwright records that on May 14, 1779, at Sandwich Bay he took "an egg out of a butcher bird's nest, which is in the top of a spruce tree." On May 20th he

took six more eggs and shot and stuffed both the male and female birds.

[*Vireo olivaceus* (Linn.). RED-EYED VIREO.—We have no exact record of this bird for Labrador although Verrill found it common at Anticosti. Nuttall says it “appears to inhabit every part of the American continent from Labrador to . . . Jamaica.”]

[*Vireo philadelphicus* (Cass.). PHILADELPHIA VIREO.—One was obtained at Moose Factory in 1860, but there is no record for Labrador.]

[*Vireo noveboracensis* (Gmel.). WHITE-EYED VIREO.—The only record of this bird for Labrador is that of Audubon ('39, p. 431): “A few were seen by me in Labrador.” As this is a bird of the Upper Austral zone, the record has been discredited by J. A. Allen (Packard, '91, p. 415), yet it breeds regularly as far north as Essex County, Massachusetts, and stragglers have been recorded from New Brunswick, Cape Breton, Ontario, and Newfoundland. It would perhaps be no more remarkable than the record of the Little Blue Heron. It is possible, however, that Audubon confused the Philadelphia Vireo with this species.]

[*Mniotilta varia* (Linn.). BLACK AND WHITE CREEPER.—Drexler took this bird at Moose Factory and Brewster found it at Anticosti, but we have no records for Labrador.]

Helminthophila rubricapilla (Wils.).

NASHVILLE WARBLER.

Very rare summer visitor in the southern part.

The only record is that of Audubon ('39, p. 461): “A few were procured by us in Labrador.” Cooke ('04, p. 37) does not record this bird northeast of Gaspé Bay. Audubon's record is unique, but can hardly be doubted.

Helminthophila peregrina (Wils.).

TENNESSEE WARBLER.

Not uncommon summer resident in Hudsonian zone.

Packard states that it was obtained by Drexler at Fort George, James Bay, in June and July, 1860. Low says it is “not rare at Lake Mistassini” where it arrived between the 1st and 15th of June.

Our experience with this bird was interesting but decidedly tantalizing. At Mary Harbor, St. Lewis Inlet, on July 12th, at Rigolet on July 18th, and at Cape Charles on July 28th and 29th, we heard the song of a warbler which we are convinced was of this species, although we were unable to catch a glimpse of the performer except on July 28th. This was but a glimpse only of a small neat warbler, nearly white below and darker above. We were unable to procure the bird. The song was similar at all three places, and we had heard it on July 8th at Lark Harbor, Newfoundland, but were unable to see the shy performer. Any attempt to discover the bird resulted always in the cessation of the song. At Cape Charles when the song ceased on one occasion the bird began emitting a sharp chipping alarm note which it kept up almost constantly. We followed the bird about for nearly three quarters of an hour in a thicket of spruces, fir, alders, and willows but only twice did we catch momentary glimpses of him. Finally the bird became silent and we were obliged to give up our quest. On the 29th we did not once see the bird in a two-hour search.

The song appeared to be the same in all cases and to consist of three parts, although the last part was occasionally omitted. The middle part suggested the song of the Nashville Warbler. We have written the song thus: *tsit, tsit, tsit* — *wot, wot, wot* — *tsee, tsee, tsee*.

[*Compothlypis americana usneae* Brewst. NORTHERN PARULA WARBLER. — Brewster saw this bird at Anticosti but we have no records for Labrador.]

[*Dendroica tigrina* (Gmel.). CAPE MAY WARBLER. — Drexler obtained this bird at Moose Factory but we have no record for Labrador.]

Dendroica aestiva (Gmel.).

YELLOW WARBLER.

Common summer resident locally in southern parts.

Drexler obtained one July 12, 1860, at Fort George, James Bay. One was seen by Frazar on June 4th and another in August at Kegaska on the southern coast. Low states that it is "common at Lake Mistassini; seen near Grand Falls, Hamilton River, May 31st." Macoun states that it is common up James Bay to Richmond Gulf; nest June 26, 1896, on an island in James Bay; none seen crossing Ungava (Spreadborough).

***Dendroica caerulescens* (Gmel.).**

BLACK-THROATED BLUE WARBLER.

The only record is that of the finding of a dead bird by Audubon ('35, p. 309): "In Newfoundland I saw none, and in Labrador only a dead one, dry and shrivelled, deposited like a mummy in the fissure of a rock, where the poor bird had fallen a victim to the severity of the climate."

***Dendroica coronata* (Linn.).**

YELLOW-RUMPED WARBLER; MYRTLE WARBLER.

Common summer resident, chiefly in the Canadian zone.

Audubon states that this was among the first birds observed by him in southern Labrador. Stearns says it is "common in interior. Breeds." Frazar saw four on one day in July at Cape Whittle, and Low records a "specimen from Grand Falls, Hamilton River, May 31st."

***Dendroica maculosa* (Gmel.).**

MAGNOLIA WARBLER.

Common summer resident in the Canadian zone.

Audubon found a nest with five eggs of this species in southern Labrador in the beginning of July, and in the first days of August he saw many young following their parents. Low says it is "not rare at Lake Mistassini," where it arrives the last of May.

***Dendroica castanea* (Wils.).**

BAY-BREASTED WARBLER.

Very rare summer resident.

Turner records that "three individuals were seen at Black Island, Hamilton Inlet, by me July 9, 1882. Two were shot, but lost in the thick undergrowth; one of the birds was actually in my hand, but escaped." It is a bird of the Canadian zone and has been taken just outside of the limits of Labrador at Moose Factory.

***Dendroica striata* (Forst.).**

BLACK-POLL WARBLER.

Very common summer resident.

The Black-poll Warbler frequents all the wooded region of Labrador in summer and advances well to the borders of the Arctic zone taking advantage of islands of the Hudsonian zone in the form of dwarfed firs and spruces. Audubon says it arrives in southern Labrador from the 1st to the 10th of June. Low found it on the upper Hamilton River on May 31st. Spreadborough saw it at Fort George, James Bay, on June 20th and he found it common throughout Ungava, where he noted the last one at Fort Chimo on August 23d. Turner found it breeding at Fort Chimo and Macoun notes two sets of eggs from this point.

We found the Black-poll Warbler common at Mary Harbor, St. Lewis Inlet, also at Cartwright and Rigolet, and at Cape Charles; that is, wherever we came in contact with the Hudsonian fauna. The males were singing commonly.

***Dendroica blackburniae* (Gmel.).**

BLACKBURNIAN WARBLER.

Very rare summer resident in the southern part.

The only record of this bird of the sub-Canadian and Transition zone for Labrador is that of Audubon ('35, p. 208): "In Labrador we saw several individuals of both sexes."

***Dendroica virens* (Gmel.).**

BLACK-THROATED GREEN WARBLER.

Very rare summer resident in southern Labrador.

Frazar records: "A bird of the year, which I killed at Esquimaux Point on September the 4th, was all I saw of this species." Palmer referring to this species says: "Two birds were taken at the Mingan Islands."

***Dendroica vigorsii* (Aud.).**

PINE WARBLER.

Very rare summer resident.

Coues obtained on August 1st in dense fir woods, a young bird just able to fly. This was apparently at Esquimaux Bay and constitutes the only record of this species we have for Labrador.

***Dendroica palmarum hypochrysea* Ridgw.**

YELLOW PALM WARBLER.

Rare summer resident in southern Labrador.

Audubon says: "I found it abundant in Newfoundland and Labrador, where I seldom passed a day without searching for its nest, although I am sorry to say, in vain."

According to Cooke ('04, p. 95), Hudson Bay is supposed to be the dividing line between the summer home of the western Palm Warbler and *hypochrysea*. He adds: "The northern limit of its range is not yet clearly determined, but is probably in Quebec, southern Labrador, and Newfoundland."

***Seiurus aurocapillus* (Linn.).**

OVEN-BIRD.

Rare summer resident in southern portions.

The only record we have for this bird is from Stearns who said it was "not uncommon in the interior. Breeds." Verrill and Brewster observed it at Anticosti.

***Seiurus noveboracensis* (Gmel.).**

WATER-THRUSH.

Not uncommon summer resident in wooded portions.

The Water-Thrush is generally distributed throughout the wooded portions of Labrador. It has been seen even at Fort Chimo and at

Koksoak according to Macoun, who also says it is common at Fort George, James Bay, and that one was seen a short distance inland from Richmond Gulf. It breeds commonly at Lake Mistassini where Low notes its arrival on May 20th. Turner took several, including young of the year, at Davis Inlet in August, 1884. Bigelow says it is locally common as far north as Aillik. Low says it is common about the Grand Falls, Hamilton River.

We did not find the bird in Labrador even in the places where the Black-poll Warbler was common.

***Geothlypis trichas brachidactyla* (Swains.).**

NORTHERN YELLOW-THROAT.

Common summer resident in southern Labrador.

Stearns found it common at Natashquan and records it at this point on May 26, 1881. Packard states that it is "common in southern portions." These are the only records.

***Wilsonia pusilla* (Wils.).**

WILSON'S WARBLER.

Not uncommon summer resident in southern Labrador.

Audubon in his Labrador journal speaks of finding the nest and four eggs of this species at Little Mecattina Harbor on July 14, 1833. Stearns noted it near the Esquimaux River. Low saw it near the Grand Falls of the Hamilton River on May 31st and states that it is not rare at Lake Mistassini. Spreadborough saw one at Fort George, James Bay, on June 20th.

We saw two Wilson's Warblers among the alder and fir thickets at Mary Harbor, St. Lewis Inlet, on July 12th, and three at Cape Charles on July 29th and 30th. They were in song at this time.

***Wilsonia canadensis* (Linn.).**

CANADIAN WARBLER.

Rare summer resident in southern Labrador.

Audubon says: "I have traced it from Pennsylvania to Labrador";

and again: "Nor did I see any in Labrador after the first of August." Bigelow noticed it in the extreme south of Labrador.

***Setophaga ruticilla* (Linn.).**

REDSTART.

Rare summer resident.

One was obtained by James McKenzie at Rupert House, September 3, 1860; Brewster ('84, p. 372) reported that "several [were] seen at Fox Bay [Anticosti] and others near Mingan." Eifrig says that "a poor skin of one was shown to Mr. Halkett at Port Burwell by the factor of the station, showing that this species occasionally reaches the north of Labrador."

***Motacilla alba* Linn.**

WHITE WAGTAIL.

The only record for this bird is by Turner: "Four individuals of this species were seen by Alex. Brown and James Lyall (of the Hudson Bay Company), August 29, 1883, at Hunting Bay, 4 miles south of Fort Chimo. These persons described the bird accurately, and declared they were the two parents and two young of the year. I must add that I place the fullest reliance in their assertion."

***Anthus pensilvanicus* (Lath.).**

AMERICAN PIPIT; TITLARK; "WAGTAIL."

Abundant summer resident throughout the Arctic zone.

Everywhere in Labrador within the limits of the Arctic zone this bird is found breeding. Stearns reported it as common along the southern coast as far west as Mingan. Beyond this the forest region of the Hudsonian zone comes down to the shore. Audubon met with them abundantly, and found a nest with a set of five eggs near Cape Whittle on June 29, 1833. On the eastern coast this species is everywhere to be found in summer and it has been reported there by Coues, Packard, Weiz, and Bigelow. Macoun records a set of eggs taken at Hamilton Inlet on June 30, 1895, and another on June 15th

at Nachvak. Turner found them breeding plentifully at Fort Chimo in the extreme north, and Spreadborough found them common on the rocky islands in James Bay, and on all the hills between Richmond Gulf and Ungava Bay. He took a nest with five eggs on June 18, 1896.

We found Pipits commonly wherever we landed on the Labrador coast, and we frequently saw or heard them as we steamed along the shores. We noted 49 individuals on our way north, and 103 on our return trip. Their slim graceful forms and quaker-gray and brown plumage make them very attractive birds. We frequently saw them walking on the roofs of the tilts and fish houses as well as on the rocks close to the dwellings of the inhabitants. There were about eight pairs on Battle Island. They frequented commonly the rocky and pebbly shores of the sea. During our visit they appeared to be busy feeding their young, and could frequently be seen with their bills full of insects. We found a full-fledged young at Battle Harbor on July 15th.

The habit of wagging the tail up and down is shared even by the young that are able to fly but a short distance, birds whose tails are only half grown. In walking, Pipits thrust their feet well out in front and nod their heads gracefully in a dove-like manner.

Their call note *tsee-ket*, so familiar on the Massachusetts coast in the autumn migrations was occasionally heard, but the common note at this season, and one constantly repeated by reason of the solicitude for their young was a loud whistling *tswit*, resembling at times very closely the alarm note of the Spotted Sandpiper. Once or twice we heard a *churr* like that of a Red-poll.

The flight song of the American Pipit is an interesting performance. One was observed at Great Caribou Island on July 11th under especially favorable circumstances. He was standing on a rock in a valley about 150 feet nearly vertically below us. He suddenly sprang into the air, mounting nearly vertically, but circling slightly. As he went up he sang repeatedly a simple refrain, *che-whée, che-whée* with a vibratory resonance on the *whée*. Attaining an eminence of some 50 feet obliquely above us, perhaps 200 feet from the ground, he checked himself and at once began the descent. He went down faster and faster, repeating his song at the same time faster and faster. Long before he reached the ground he set his wings and tipped from side to side to break his descent. After remaining quiet on the ground

for a few moments he repeated the performance and we watched him go up four or five times. On one occasion he was twenty seconds going up, emitting his refrain forty-eight times. In the descent he was quicker, accomplishing it in ten seconds and singing thirty-two bars of his song. Most of the birds had stopped singing by the middle of July, but we occasionally heard a rapid repetition of the call notes *tsée-ke-t*, suggestive of a Barn Swallow and almost forming a song.

[*Troglodytes aëdon* Vieill. HOUSE WREN.— There is no record for this bird in Labrador except this sentence of Nuttall: "Its northern migrations extend to Labrador." For this there is no real foundation.]

***Olbiorchilus hiemalis* (Vieill.).**

WINTER WREN.

Uncommon summer resident in southern Labrador.

Macoun says it is not rare at Lake Mistassini. Audubon saw the bird in southern Labrador on July 20th. "They leave Labrador by the middle of August at the latest." Frazar said it was "not common, though regularly heard in the thick woods about Esquimaux Point."

***Sitta canadensis* Linn.**

RED-BREASTED NUTHATCH.

Uncommon summer resident in southern Labrador.

Audubon "saw . . . only one in Labrador, which had probably been blown thither by a gale." Frazar "saw several broods with their parents at Esquimaux Point the first week of September." Palmer says: "I captured a young bird with a dip-net, on board, when about 12 miles south of Natashquan Point, Labrador, on August 9."

We heard one in a small grove of spruces near Indian Cove at Cape Charles on July 30th.

***Parus atricapillus* Linn.**

CHICKADEE.

Not uncommon summer resident in southern Labrador.

The records for this species are very few. J. M. Macoun found it

rather common at Lake Mistassini. Turner says: "I am informed by credible persons, long resident in the country, that two species of Chickadees occur at Northwest River [Hamilton Inlet]." Bigelow ('02) says: "Locally abundant in timbered regions." This note is probably intended for *P. hudsonicus* as the latter bird is not mentioned in this first paper but is listed in his second paper (Bigelow, '02a) on the ornithology of the Brown-Harvard expedition, which omits mention of *atricapillus*.

***Parus hudsonicus* Forst.**

HUDSONIAN CHICKADEE.

Abundant permanent resident.

Audubon found a nest of this species with young in southern Labrador on July 18th. Frazar says he saw two in the spring at Esquimaux Point but "none others until my return in September, when they were migrating in abundance along with the Labrador Jays . . . They passed in fifties and hundreds, and the two mornings that I was out I must have seen as many as twenty such bunches." Stearns said they were abundant along the coast all the year. Low says they are abundant on Hamilton River from April 1st. Spreadborough observed them about 75 miles inland from Richmond Gulf and at the George River. Turner says they are abundant in the wooded tracts; young of the year were seen at Davis Inlet on July 19th and at Fort Chimo in early August.

Rhoads ('93, p. 328-330) quotes Forster that the type locality of *P. hudsonicus* is Fort Severn at the mouth of the Severn River, and describes *Parus hudsonicus ungava* on the basis of specimens from Fort Chimo collected by Turner. Another specimen from Rigolet is referred to this form, and one from southern Labrador is intermediate.

We saw only three Hudsonian Chickadees in Labrador and these were in the woods near Rigolet.

As there has been some discussion of the song of this bird, the present status of the question is given here. The Hudsonian Chickadee was not known to have any song, and no mention seems to have been made of it until 1905 when H. W. Wright (*Auk*, vol. 22, 1905, p. 87) in speaking of a Hudsonian Chickadee he had seen at Ipswich, Massachusetts, on November 12, 1904, stated that "[he] was very finely seen

while he gave a sweet warbling song." Of another bird, seen on November 25th, he said: "The Belmont bird was also well seen and gave a few notes of the warbling song." At Cape Breton Island in August, 1905, Dr. Townsend heard in four different places a pleasant warbling song emitted by this species. "It was a low, bubbling, warbling song, which I vainly attempted to describe in my notes. It began with a *pset* or *tsee*; followed by a sweet but short warble" (Auk, vol. 23, 1906, p. 178). While this was in press, C. H. Clark wrote as follows in the Journal of the Maine ornithological society (vol. 8, 1906, p. 27): "I ran into a flock of Hudsonian Chickadees (ten or twelve), and these, too, were exercising their voices, and mingled with the 'dee, dee, dees,' and 'chick-a-dee dees' was a sweet little song of three or four notes and new to me, but I was not long in doubt as to what it was, for soon a Hudsonian came out on a limb not over three feet from my face and sang it right at me." This was at Lubec, Maine, on February 11, 1906. Again in the same Journal (vol. 8, 1906, p. 83) Dana W. Sweet records a pair of Hudsonian Chickadees on Mt. Abraham, near Phillips, Maine, on June 22, 1906. He says: "Twice I heard the song of the Hudsonian Chickadee." Dr. Townsend wrote to Mr. Sweet asking for fuller particulars. Mr. Sweet kindly replied as follows under date of December 8, 1906: "I have never read anything about the notes of the Hudsonian Chickadee. . . . January 19, 1905, I heard what I am very sure is the warbling song that you mention. At the time I was unable to describe it in my notes. . . . It was, however, entirely different from any other notes of either species. As I remember, it was a clear, sweet soprano, and was quite a remarkable performance from a musical standpoint."

Although we did not hear the song in Labrador, we heard at Bay of Islands, Newfoundland, on July 6, 1906, a song which Dr. Townsend recognized as the warbling song of this species he had heard the previous summer in Cape Breton. We are both agreed that it should be classed as "a warbling song" of considerable merit. We had been watching a pair of Hudsonian Chickadees with the hope of hearing them sing, but as the birds were concealed in the spruces at the time the song was heard, we could not be absolutely sure that one of these was the author. In speaking of the song Mr. Brewster ("Birds of the Cambridge region," 1906, p. 379) says: "I have never heard anything of the kind from the Hudsonian Chickadee, although I am reasonably familiar with that species, having had abundant

opportunities for studying its notes and habits in the forests of northern New England where I have met with it on many different occasions and during every month of the year excepting April."

Regulus satrapa Licht.

GOLDEN-CROWNED KINGLET.

Common summer resident in southern portions.

Low found this bird "common on Hamilton River between Grand Falls and Sandy Lake; rare to northward; seen May 19th." Bigelow says it is "fairly common in patches of spruce timber as far as Aillik." Macoun records a set of seven eggs from Cartwright taken on June 15, 1895. "Nest suspended from a branch of a spruce tree 15 feet from the ground (W. Raine)."

Regulus calendula (Linn.).

RUBY-CROWNED KINGLET.

Common summer resident in southern portion; May 11 to October 11.

Audubon and Stearns found this bird on the southern coast; Coues found it at Rigolet; Low says it is "very common along Hamilton River between Grand Falls and Sandy Lake." J. M. Macoun says it breeds commonly at Lake Mistassini where Low noted its arrival on May 11th; Spreadborough found it at Fort George, James Bay, and it was common at Richmond Gulf.

[**Poliotila caerulea** (Linn.). BLUE-GRAY GNATCATCHER.— Audubon ('39, p. 551) says: "A pair were observed in one of the valleys of Labrador." It seems improbable that this bird of the Austral zones should have wandered thus widely. As Audubon does not state that he saw the bird himself it is possible that a kinglet was confused with this species.]

[**Hyllocichla mustelina** Gmel. WOOD THRUSH.— Stearns ('83, p. 9) reported that this species was "heard" by him ten miles up the Esquimaux River in late July. This record was discredited by Ridgway and by J. A. Allen, and was omitted by Stearns from his "Bird life in Labrador." It is probable that the song heard was that of the Hermit Thrush.]

Hylocichla fuscescens (Steph.).

WILSON'S THRUSH.

Rare summer resident in southern part.

The only record of this species for Labrador is by Audubon ('35, p. 362). He says: "On the 20th of July, while in the latter country [Labrador], I saw the young of this species following their mother. They were then almost full grown, and could fly a hundred yards or so at a time. By the 12th of August none were seen, although during my stay they were as common as any other bird."

Brewster ('84, p. 368) closely observed a pair at Ellis Bay on the island of Anticosti, a few miles south of the Labrador region.

Hylocichla aliciae (Baird).

ALICE'S THRUSH.

Common summer resident; rare in the northern portions.

Stearns says this bird is everywhere abundant in the interior. Coues found it breeding abundantly, the young flying on July 24th. Bigelow saw it as far north as Aillik. Macoun records a set of three eggs from James Bay taken in June, 1896. Turner found it "rare in Ungava, common in southeastern and southern portions. Breeds wherever found in summer." He records a nest and eggs taken at Fort Chimo on June 28, 1884.

We saw and heard Alice's Thrush at various places in Labrador as follows: 1 singing at Forteau on July 10th; 3 at Mary Harbor on July 12th and 2 on July 13th; at Cape Charles on July 28th, 7 were seen or heard, 12 on July 29th, 16 on July 30th, and 2 on July 31st at the same place. Some of these were of course the same birds counted more than once on successive days. They were still in song the last of July. The call note is a *phéu*, at times faint and at times loud, often resembling closely the call note of the Veery. What appears to be an alarm note is a loud *spéé-a* with a vibratory character, resembling at times closely the note of the Night-Hawk and at times that of a Veery.

The song when heard at close range is sometimes introduced by faint and curious sounds as if the bird were breathing through its

nose. Then there is a single or double first note followed by a long Veery-like vibration, sweet yet mournful. As would be expected, the song is not noticeably different from that of Bicknell's Thrush as heard in the White Mountains of New England and does not, as has been stated, resemble that of the Hermit Thrush.

We obtained only one specimen of this species, a worn female at Cape Charles in July. The measurements of this specimen which are as follows: wing 92 mm., tail 64 mm., bill 14 mm., tarsus 24 mm., correspond to those of a large Bicknell's Thrush or a small Alice's Thrush. A series of specimens from Labrador might throw interesting light on the standing of Bicknell's Thrush.

***Hylocichla ustulata swainsoni* (Cab.).**

OLIVE-BACKED THRUSH.

Common summer resident in the interior and on the southwestern coast.

Specimens were obtained by Drexler at Rupert House on June 13th and in July, 1860. Low says that it was very common along the upper Hamilton River; it was seen May 16th and eggs were found on June 30th. A set of four eggs was taken on the Hamilton River on July 3, 1894. Spreadborough observed it as far north as Fort George, James Bay, in June, 1896.

We did not observe the bird but our observations extended but a short way from the Arctic coastal zone. It is a bird of the Canadian zone pushing its way in places into the Hudsonian zone.

***Hylocichla guttata pallasii* (Cab.).**

HERMIT THRUSH.

Common summer resident in southern part.

The Bowdoin college expedition brought back a specimen of this thrush from Chateau Bay taken July 14th and there is another in the Bangs collection from Lance au Loup taken June 1, 1899. Low says it is "not rare at Lake Mistassini." Spreadborough says he observed it only twice, on July 4th and 24th, 1896, in the interior of the peninsula.

We found the Hermit Thrush only at Mary Harbor, St. Lewis Inlet. Here we heard two or three singing in the afternoon and evening of July 12th and the morning of July 13th.

***Merula migratoria* (Linn.).**

AMERICAN ROBIN.

Abundant summer resident throughout Labrador; April 26 to October 10.

The strong-flying Robin disregards the boundaries of faunal zones and is found breeding everywhere in Labrador. It was the first land bird seen by Audubon on reaching Labrador. Cartwright notes the finding of a Robin's nest with three eggs on June 29, 1779. He states that they seldom lay more than three eggs in Labrador. He records the first arrivals in 1786 on May 8th.

All writers describe the Robin as common or abundant and it is unnecessary to give all the records. Stearns says they are never seen in winter and gives the earliest and latest dates as above. Spreadborough found them common across Ungava from Moose Factory to Fort Chimo. Eggs were taken at Fort Chimo on June 13th, and on the upper Hamilton River on July 5th.

We found 1 Robin at Lance au Loup, 6 or more at Mary Harbor, 4 at Cartwright, 4 at Rigolet, 2 at Hopedale, 12 or more at Cape Charles, and 1 at Henley Harbor. We found a nest containing three eggs at Rigolet on July 18th. It was placed about seven feet up in a spruce, near the houses of the Hudson's Bay company's post, and was constructed of twigs, lichens, and mud, lined with finer material.

At Hopedale the birds were seen in the Eskimo village and they were said to have a nest there. We were told that a pair of Robins had nested at Battle Island the previous year. Mr. Schmitt records the arrival of the Robin at Nain on May 10. It was interesting to see this familiar bird in such wild and arctic surroundings, and to hear its beautiful morning hymn in the wilderness at Mary Harbor. As far as we could see, specimens of Labrador Robins in the Bangs collection did not differ from those from Massachusetts; we did not shoot any specimens.

Saxicola oenanthe leucorhoa (Gmel.).

GREENLAND WHEATEAR.

Rare summer resident.

Baird, Brewer, and Ridgway say of the Wheatear: "Dr. H. R. Storer of Boston found them breeding in Labrador in the summer of 1848, and procured specimens of the young birds which were fully identified by Dr. Samuel Cabot as belonging to this species. In the following year Andrew Downs, of Halifax, gave me the specimen described and figured by Mr. Cassin. This was secured late in the summer near Cape Harrison, Labrador, where it had evidently just reared its brood. . . . Its occurrence in considerable numbers on the coast of Labrador is further confirmed by a writer ('W. C.')

in the 'Field' for June 10, 1871."

A specimen was brought to Coues by a sailor at Henley Harbor on August 25, 1860. It was said to be in company with two others. Coues thought it might be *S. oenanthoides* of Vigors, an incorrect view for Vigors' measurements showed that he referred to the small form *S. oenanthe*. Bigelow says that the Hudson's Bay company's factor at Nachvak had three nests.

This Wheatear that breeds in Labrador reaches its summer home from Africa by way of England, Iceland, and Greenland. It is a larger race than *oenanthe* which is found in Alaska.

Stejneger's ('01, p. 477) remarks on the wheatears in North America are here worth quoting. He says: "We have, consequently, in America both forms, *Saxicola oenanthe* in Alaska and *Saxicola leucorhoa* in Greenland and adjacent parts of northeastern North America. As all the birds found in the latter part of the continent belong to the large race, it is settled beyond the shadow of a doubt that the Wheatears which breed in Alaska do not migrate by way of Greenland or Labrador, but that they retrace their steps into the Tchuktchi Peninsula and farther south into Asia, as indicated by me fifteen years ago.

"The Wheatear, the most widely distributed species of the genus *Saxicola*, thus extends its range across the entire palaeartic continent from the Atlantic to the Pacific Ocean. At both extremities of its home continent, however, it has expanded its range into the New World, and no one who follows on the map the route of the retreating

winter migrants can for a moment be in doubt that these routes really represent the way by which the species originally invaded America. It would be difficult to find a more beautiful example to illustrate that now well-known law which was first formulated by Prof. Johan Axel Palmén, of Helsingfors. Moreover, no better example could be found for demonstrating the necessity of minute discrimination in ascertaining the characters by which these 'migration route races,' as Palmén calls them, are characterized.

"It seems that one more lesson can fairly be drawn from the differentiation of the Greenland race, viz, that the Greenland-Iceland-England route must be considerably older than the Alaska-Tchuktchi-Udski route, since it has resulted in the establishment of a separable race. A consideration of the further fact that no regular migration route could have been effected between Greenland, Iceland, and Great Britain during the present distribution of land and water in that part of the world also leads us back to a period when the stretches of ocean now separating those islands were more or less bridged over by land. For such a condition of affairs we shall have to look toward the beginning of the glacial period. At that time it must, therefore, be assumed that the Wheatear extended its range into Greenland. The advent of the typical form into Alaska, on the other hand, is probably one of very recent time, an assumption corroborated by the somewhat uncertain and erratic distribution of the species in that northwestern corner of our continent."

SUMMARY.

Authenticated species and subspecies	.	.	.	213
Extinct species	.	.	.	2
Doubtful and erroneous species	.	.	.	44
				<hr/>
			Total,	259

The following table presents in the form of a summary, the approximate numbers of the different species of birds observed by us during our journey along the coast, and is of interest as showing what species are most likely to be met with on these shores, and at what points we found them in greater or less abundance.

APPROXIMATE NUMBERS OF BIRDS SEEN IN LABRADOR, JULY 10 TO AUGUST 3, 1906.

Species.	Southern coast: Blanc Sablon to Battle Harbor July 10-11.	Battle Harbor to Hamilton Inlet including Gt. Caribou Isl. and St. Lewis Inlet July 12-17.	Hamilton Inlet to Nain including Rigolet July 18-21.	Nain to Hamilton Inlet July 22-24.	Hamilton Inlet to Battle Harbor including Gt. Caribou Isl. and Cape Charles July 25-Aug. 1.	Southern coast: Battle Harbor to Bradore Aug. 2-3.
Red-throated Diver	.....	7	28	24	.....	.....
Loon	..... 1	3	3	2	.....	.....
Puffin	177	12	1	33	10	1007
Black Guillemot	1	193	261	412	137	4
Murre sp?	.....	11	0	.....	.....	.....
Razor-billed Auk	7	15	69	45	2	20
Pomarine Jaeger	.....	.....	23	57	.....	.....
Parasitic Jaeger	.....	.....	.....	4	.....	.....
Kittiwake	200	11	5465	1261	50	2360
Glaucous Gull	.....	4	10	18	1	.....
Great Black-backed Gull	6	29	8	6	10	209
Herring Gull	20	34	1013	22	13	25
Arctic Tern	.....	.....	.....	.....	.....	1
Fulmar	.....	.....	8	.....	.....	.....
Greater Shearwater	19	5027	.....	2	7	.....
Sooty Shearwater	1	3	.....	2	1	.....
Wilson's Petrel	.....	.....	.....	.....	1	.....
Red-breasted Merganser	.....	.....	.....	.....	.....	.....
Harlequin Duck	.....	.....	.....	1	.....	.....
American Duck	35	37	70	20	1	.....
American Eider	.....	1	1	.....	.....	.....
King Eider	.....	45	12	.....	.....	.....
American Scoter	.....	115	652	.....	.....	.....
White-winged Scoter	.....	8	8	5	.....	.....
Surf Scoter	.....	.....	8	.....	.....	.....
Red Phalarope	.....	.....	3	.....	.....	.....

LITERATURE.

Audubon, J. J.

'35. Ornithological biography, or an account of the habits of the birds of the United States of America; accompanied by descriptions of the objects represented in the work entitled *The birds of America*, and interspersed with delineations of American scenery and manners. Vol. 2, Boston, 8vo, xxxii + 588 pp.

'35a. The same. Vol. 3, xvi + 638 pp.

'38. The same. Vol. 4, Edinburgh, xxviii + 618 pp.

'39. The same. Vol. 5, xxxix + 664 pp.

'40-'44. *The birds of America, from drawings made in the United States and their Territories.* New York and Philadelphia, large 8vo, 7 vols.

Audubon, Maria R.

'97. Audubon and his journals, with zoological and other notes by Elliott Coues. New York, 2 vols., 8vo, illustr.

Baird, S. F., Brewer, T. M., and Ridgway, R.

'74. *A history of North American birds.* Land birds. Boston, 4to, 3 vols., illustr.

'84. *The water birds of North America.* Mem. mus. comp. zool., vols. 12, 13, illustr.

Bangs, O.

'99. *The Labrador Spruce Grouse.* Proc. N. E. zool. club, vol. 1, p. 47-48.

'00. *A review of the Three-toed Woodpeckers of North America.* Auk, vol. 17, p. 126-142.

(The Labrador bird is described as a new subspecies.)

'00a. *Occurrence of the Little Blue Heron in Labrador.* Auk, vol. 17, p. 386.

Barnston, G.

'61. *Recollections of the swans and geese of Hudson's Bay.* Canadian naturalist, vol. 6, p. 337-344; also Zoologist, ser. 1, vol. 20, 1862, p. 7831-7837.

Bell, R.

'83. *Notes on the birds of Hudson's Bay.* Proc. and trans. roy. soc. Canada, ser. 1, vol. 1, sec. 4, p. 49-54.

'85. *List and notes of birds of the vicinity of Hudson's Bay and Labrador.* Rept. of progress, geol. and nat. hist. surv. Canada, 1882-83-84, app. 3, p. 54 DD-56 DD.

Bendire, C.

'92. *Life histories of North American birds with special reference to their breeding habits and eggs.* Smithsonian contr. to knowl., vol. 28, x + 446 pp., 12 pls.

- '95. Life histories of North American birds, from the parrots to the grackles, with special reference to their breeding habits and eggs. Smithsonian contr. to knowl., vol. 32, ix + 518 pp., 7 pls.
- Bigelow, H. B.
- '02. Birds of the northeastern coast of Labrador. Brown-Harvard expedition of 1900, under the leadership of Professor Delabarre. *Auk*, vol. 19, p. 24-31.
- '02a. IX. Report on ornithology. E. B. Delabarre's Report of the Brown-Harvard expedition to Nachvak, Labrador, in the year 1900. *Bull. geogr. soc. Philadelphia*, vol. 3, p. 202-206.
(This list gives a few additions and corrections to the previous one.)
- Brewster, W.
- '84. Notes on the birds observed during a summer cruise in the Gulf of St. Lawrence. *Proc. Boston soc. nat. hist.*, vol. 22, p. 364-412.
- '02. An undescribed form of the Black Duck (*Anas obscura*). *Auk*, vol. 19, p. 183-188.
(*A. o. rubripes* from Labrador.)
- Bryant, H.
- '61. Remarks on some of the birds that breed in the Gulf of St. Lawrence. *Proc. Boston soc. nat. hist.*, vol. 8, p. 65-75.
- Cartwright, G.
1792. A journal of transactions and events during a residence of nearly sixteen years on the coast of Labrador. Newark, England, 4to, 3 vols.
- Chapman, F. M.
- '95. Handbook of birds of eastern North America. New York, 12mo, xiv + 431 pp., illustr.
(Distributional notes including Labrador.)
- Chappell, E.
- '18. Voyage of His Majesty's ship *Rosamond* to Newfoundland and the southern coast of Labrador. London.
- Comeau, N. A.
- '81. Bird-nesting in Labrador. *Canadian sportsman and naturalist*, vol. 1, no. 7, p. 51.
- Cooke, W. W.
- '04. Distribution and migration of North American warblers. *U. S. dept. agric., biol. surv.*, bull. 18, 142 pp.
- '06. Distribution and migration of North American ducks, geese, and swans. *U. S. dept. agric., biol. surv.*, bull. 26, 90 pp.
- Coues, E.
- '61. Notes on the ornithology of Labrador. *Proc. acad. nat. sci. Philadelphia*, 1861, p. 215-257.
- Dionne, C. E.
- '06. Les oiseaux de la Province de Quebec. 8vo, Quebec, viii + 414 pp., illustr.
- Eifrig, C. W. G.
- '05. Ornithological results of the Canadian '*Neptune*' expedition to Hudson Bay and northward. 1903-1904. *Auk*, vol. 22, p. 233-241.

Fleming, J. H.

- '06. Range of the Sharp-tailed Grouse in eastern Canada. Ontario nat. sci. bull., no. 2, p. 19.

Frazar, M. A.

- '87. An ornithologist's summer in Labrador. Ornithologist and oologist, vol. 12, p. 1-3, 17-20, 34-35.

Howe, R. H., Jr.

- '01. A new subspecies of *Passerculus sandwichensis*. Contributions to No. Amer. ornithol., vol. 1, p. 1-2.

- '02. The Labrador Savanna Sparrow. Auk, vol. 19, p. 85-86.

- '03. A further note on the subspecies of *Passerculus sandwichensis* inhabiting Labrador. Auk, vol. 20, p. 215-216.

Kumlien, L.

- '79. Contributions to the natural history of Arctic America, made in connection with the Howgate polar expedition, 1877-78. Bull. U. S. nat. mus., no. 15, 171 pp.

(Birds seen along Labrador coast, p. 69-105.)

Low, A. P.

- '90. The Mistassini region. Ottawa naturalist, vol. 4, p. 11-28.

- '96. Report on explorations in the Labrador peninsula along the East Main, Koksoak, Hamilton, Manicouagan and portions of other rivers in 1892-93-94-95. Ann. rept. geol. surv. Canada, vol. 8, part L, 387 pp., 4 pls.

(List of birds, p. 323-328.)

- '06. Report on the dominion government expedition to Hudson Bay and the arctic islands on board the D. G. S. *Neptune*. 1903-1904. Ottawa, xvii + 355 pp., illustr.

Lucas, F. A.

- '90. The expedition to the Funk Island, with observations upon the history and anatomy of the Great Auk. Rept. U. S. nat. mus. for 1887-88, p. 493-529, pl. 71-73.

Macoun, J.

- '00-'04. Catalogue of Canadian birds. Geol. surv. Canada, nos. 692, 822, 883, 733 + xxiii pp. Part 1, 1900; part 2, 1903; part 3, 1904.

Müller, S. H. C.

- '62. Faeroernes fuglefauna med bemaerkninger om fuglefangsten. Vidensk. meddelels., 1862, p. 1-78.

(Review in Ibis, vol. 5, 1863, p. 469.)

Norton, A. H.

- '01. Birds of the Bowdoin college expedition to Labrador in 1891. Proc. Portland soc. nat. hist., vol. 2, p. 139-158, pl. 2.

Oberholser, H. C.

- '02. A review of the larks of the genus *Otocoris*. Proc. U. S. nat. mus., vol. 24, p. 801-883, pl. 43-45, 4 maps.

- '04. A revision of the American Great Horned Owls. Proc. U. S. nat. mus., vol. 27, p. 177-192.

Packard, A. S.

- '91. The Labrador coast. A journal of two summer cruises to that region. New York, 8vo, 513 pp., illustr.
(List of birds by Lucien M. Turner, revised by J. A. Allen, p. 406-442.)

Palmer, W.

- '90. Notes on the birds observed during the cruise of the United States fish commission schooner *Grampus* in the summer of 1887. Proc. U. S. nat. mus., vol. 13, p. 249-265.

Rhoads, S. N.

- '93. The Hudsonian Chickadee and its allies, with remarks on the geographical distribution of bird races in boreal America. Auk, vol. 10, p. 321-333.
(Describes *Parus hudsonicus unguava* subsp. nov.)

Schubert,— von.

- '44. Correspondenz-nachrichten aus Labrador. Verzeichniss der bekanntesten wasservögel in Labrador. Land- und strandvögel. Gelehrte anz. bayer. akad. München, vol. 18, no. 52, col. 421-422; no. 53, col. 425-430.
(Birds listed by native names with an occasional note.)

Stearns, W. A.

- '82. The American Pipit, its habits in Labrador. Amer. field, vol. 17, p. 35.
'83. Notes on the natural history of Labrador. Proc. U. S. nat. mus., vol. 6, p. 111-137; also separate, New Haven, 74 pp.
(List of birds, p. 116-123.)
'84. Labrador. A sketch of its peoples, its industries and its natural history. Boston, 12mo, viii + 295 pp.
'90. Bird life in Labrador. Amer. field, vol. 33, p. 390, 415-416, 438-439, 462, 486-487, 511, 535, 559-560, 583-584, 611-612; vol. 34, p. 6-7, 31, 55, 79, 104, 128-129, 153, 176, 199, 223-224, 247, 271, 295, 319, 344-345.

Stejneger, L.

- '85. On the alleged occurrence of the Pacific Eider in Labrador. Auk, vol. 2, p. 386.
'01. On the wheatears (*Saxicola*) occurring in North America. Proc. U. S. nat. mus., vol. 23, p. 473-481.

Townsend, C. W.

- '07. Along the Labrador coast. Boston, 8vo, xi + 289 pp., illustr.

Trumbull, J.

- '05. Notes on land-birds observed on the North Atlantic and Gulf of St. Lawrence, 1904. Zoologist, ser. 4, vol. 9, p. 293-300.

Tucker, E. W.

- '39. Five months in Labrador and Newfoundland, during the summer of 1838. Concord.

Turner, L. M.

- '85. List of the birds of Labrador, including Ungava, East Main, Moose,

and Gulf districts of the Hudson Bay company, together with the island of Anticosti. Proc. U. S. nat. mus., vol. 8, p. 233-254.

'91. See Packard, A. S., '91.

Wallace, D.

'02. The lure of the Labrador wild. New York, 12mo., 339 pp., illustr.

'07. The long Labrador trail; chap. 13. Outing mag., vol. 49, p. 656-664.

Weiz, S.

'66. List of vertebrates observed at Okak, Labrador, with annotations by A. S. Packard, Jr., M. D. Proc. Boston soc. nat. hist., vol. 10, p. 264-277.

(List of birds, mainly nominal, p. 267-269.)

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