

GEOLOGICAL SURVEY OF CANADA.
GEORGE M. DAWSON, C.M.G., LL.D., F.R.S., DIRECTOR.

CATALOGUE
OF
CANADIAN BIRDS.

PART I.
WATER BIRDS, GALLINACEOUS BIRDS, AND
PIGEONS.

INCLUDING THE FOLLOWING ORDERS :

PYGOPODES, LONGIPENNES, TUBINARES, STEGANOPODES,
ANSERES, HERODIONES, PALUDICOLÆ, LIMICOLÆ,
GALLINÆ, AND COLUMBÆ.

BY
JOHN MACOUN, M.A., F.R.S.C.
Naturalist to the Geological Survey of Canada.



OTTAWA :
PRINTED BY S. E. DAWSON, PRINTER TO THE QUEEN'S MOST
EXCELLENT MAJESTY.
1900.

No. 692.

PRICE TEN CENTS.

This document was produced
by scanning the original publication.

Ce document est le produit d'une
numérisation par balayage
de la publication originale.

GEOLOGICAL SURVEY OF CANADA.
GEORGE M. DAWSON, C.M.G., LL.D., F.R.S., DIRECTOR.

CATALOGUE
OF
CANADIAN BIRDS.

PART I.

WATER BIRDS, GALLINACEOUS BIRDS, AND
PIGEONS.

INCLUDING THE FOLLOWING ORDERS :

PYGOPODES, LONGIPENNES, TUBINARES, STEGANOPODES,
ANSERES, HERODIONES, PALUDICOLÆ, LIMICOLÆ,
GALLINÆ, AND COLUMBÆ.

BY

JOHN MACOUN, M.A., F.R.S.C.

Naturalist to the Geological Survey of Canada.



OTTAWA:
PRINTED BY S. E. DAWSON, PRINTER TO THE QUEEN'S MOST
EXCELLENT MAJESTY.
1900.

No. 692.

In the Catalogue of Canadian Birds, of which this is the first part (pp. 1-218) it is intended to enumerate all the birds of the Dominion systematically and to bring together the principal known facts in regard to their distribution, migrations and breeding habits. It is intended to complete the Catalogue in a second part, which will be prepared and published as soon as possible.

GEORGE M. DAWSON.

OTTAWA, April 2nd, 1900.

PREFACE.

In compiling this catalogue of the birds of Canada, the author has endeavoured to bring together facts on the range and nesting habits of all birds known to reside in, migrate to or visit, the northern part of the continent. In addition to the Dominion of Canada he has therefore included Newfoundland, Greenland and Alaska.

The nomenclature and the numbers given in the latest edition and supplements of the Check-list published by the American Ornithologists' Union have been made the basis of arrangement of the catalogue. The order followed in the notes on each bird is from east to west. Greenland is generally cited first and British Columbia and Alaska last.

As the catalogue is intended to be a popular and practical one, the English names of the birds are placed first, but the species are arranged in their scientific order and in accordance with the latest nomenclature. While recognizing the differences upon which many of the technical names have been based, the writer holds that some of them, depending as they do upon local and almost upon individual variations from a common type, possess from any practical or educational standpoint but a minor value. To an investigator of changes resulting from environment such differences are of great interest, but to any one anxious only to obtain the facts in regard to the distribution of our birds as readily determinable, they are unimportant.

Since the publication of the *Fauna Boreali Americana* by Swainson and Richardson, in 1831, no attempt has been made to produce a work dealing with the ornithology of the region now embraced in the Dominion of Canada. In the work referred to, the authors include separate notices of all birds that had been recorded north of Lat. 48°. Two hundred and forty species are described and twenty-seven additional West Coast species are added, making a total of two hundred and sixty-seven species known at that date.

No attempt was subsequently made to catalogue the birds of Canada as a whole until 1887, when Mr. Montague Chamberlain, of St. John, New Brunswick, published *A Catalogue of Canadian Birds with Notes on the distribution of the Species.* Previous to this

Mr. Thomas McIlwraith, of Hamilton, Ontario, published his *Birds of Ontario*, which included the birds known to occur in that province only. The second edition of this work was published in 1894 and included 317 species. The *Birds of Manitoba*, by Mr. Ernest Seton-Thompson, of Toronto, was published by the Smithsonian Institution in 1891, and, as its name implies, covered little more than that province. Mr. C. E. Dionne, of Quebec, published a catalogue of the birds of that province, with notes on their geographical distribution, in 1889, and lately (in 1896) Mr. Ernest D. Wintle has published in Montreal a valuable little work entitled *Birds of Montreal*. Mr. John Fannin, the curator of the Provincial Museum in Victoria, British Columbia, has published a *Catalogue of the Birds of British Columbia*, the second edition of which was issued in 1898. In this catalogue he includes his own extensive knowledge and that of all other observers in the province.

While others were engaged in gathering and publishing the valuable information contained in the above-mentioned works, the writer, although attending to other subjects which claimed most of his time, had constantly before him the necessity of the present work, and has been collecting notes and observations for it during all his journeys since 1879. The summers of 1879 and 1880 were spent on the prairie west of Manitoba, the season of 1881 in northern Manitoba, the summers of 1882 and 1883 along the lower St. Lawrence, that of 1884 around Lake Nepigon; that of 1885 in the Rocky and Selkirk mountains on the line of the Canadian Pacific Railway. The summer of 1887 was spent on Vancouver Island, and that of 1888 on Prince Edward Island.

In 1889 Mr. W. Spreadborough was engaged, under the supervision of the writer, and stationed for two months at Hastings and Agassiz on the Lower Fraser, British Columbia. The remainder of that season was spent between Spence's Bridge and the Columbia River. The next season Mr. Spreadborough began work in March at Revelstoke, on the Columbia, and spent the summer in the mountains to the south and east. The spring of 1891 found him at Banff in the Rocky Mountains before the birds began to move, and there he remained all summer. As Mr. Seton-Thompson had already covered Manitoba with his excellent work, it was considered best for Mr. Spreadborough in the following year to visit Indian Head, in the prairie country to the west of that

province, noting all the migrants, obtaining skins and recording the summer birds of that district. In the spring of 1893 he accompanied the writer to Vancouver Island, and there also large collections were made. In March, 1894, he examined the district around Medicine Hat and eastward to Crane Lake in western Assiniboia and remained in the field until July. The summer of 1895 was spent by him on the prairie south of the line of the Canadian Pacific Railway, where the summer birds of the prairie region were noted and records of their breeding habits made. In all these years Mr. Spreadborough worked under the direction of the writer. The summer of 1896 Mr. Spreadborough spent in Labrador and the summers of 1897 and 1898 in the Rocky Mountains between the Crow's Nest Pass and the Yellow Head Pass in Lat. 54°.

The notices of Greenland birds are derived principally from the *Arctic Manual*, published in London in 1875. In this work all records pertaining to Greenland birds were brought up to the date of publication. In 1898 Herluf Winge published in Copenhagen a conspectus of the bird fauna of Greenland, and his observations have been added to those above mentioned. Many years since Mr. Henry Reeks published a catalogue of the birds of Newfoundland, and this has been used for that island. Mr. Andrew Downs, of Halifax, Nova Scotia, is the chief authority for that province. Mr. Montague Chamberlain, of St. John, is quoted for New Brunswick. For Quebec all available material has been employed, besides the works of Mr. C. E. Dionne and Mr. Ernest D. Wintle. In addition to the Birds of Ontario, mentioned above, local lists, both manuscript and printed, of the birds of certain parts of Ontario have been freely used. For the province of Manitoba, Mr. Ernest Seton-Thompson's work is quoted, supplemented by observations made by the writer and by Dr. Coues on the southern boundary of the province.

From the western part of Manitoba to the Pacific I have drawn on my own observations and those of Mr. John Fannin, supplemented by a manuscript list of Fraser River birds by Mr. Allan Brooks. For Alaska, works by Elliott, Nelson, Turner and Murdoch have been available and are frequently cited in the following pages. In regard to northern stations, the work of Mr. Roderick Macfarlane takes first place, and the value of his collec-

tions and observations on the nesting habits of birds within the Arctic cannot be overestimated.

In addition to the works specially cited above I have used manuscript lists and notes on nesting habits of birds from Mr. George White, Ottawa ; Rev. C. J. Young, Lansdowne, Leeds Co., Ont.; Mr. J. Dippie, Mr. J. C. Fleming and Mr. Walter Raine, Toronto, Ont.; Mr. William Saunders, London, Ont.; Mr. Robert Elliott, Plover Mills, Middlesex Co., Ont.; Mr. P. A. Tavernier, Bracebridge, Ont.; Mr. A. P. Low, Mr. J. M. Macoun, Dr. Robert Bell, Mr. J. B. Tyrrell and Mr. R. G. McConnell, all of the Geological Survey Staff ; and lastly various lists and reports from Mr. Wm. Spreadborough, of Bracebridge, Ont.

The whole series of the *Transactions of the Natural History Society of Nova Scotia* ; the *Bulletin of the Natural History Society of New Brunswick* ; the *Canadian Naturalist and Canadian Record of Science*, Montreal ; *Ottawa Naturalist* ; *Journal of the Canadian Institute*, Toronto, and the *Auk*, published in New York, have been drawn upon for notices of rare species and local lists by various contributors.

It is proposed to complete the second part of the Catalogue next winter, and the writer asks ornithologists who may receive the present publication to communicate to him any additional facts they may have observed respecting the birds included in it. Such additions will be attached as a supplement to the second part.

JOHN MACOUN.

OTTAWA, March 26th, 1900

LIST OF AUTHORITIES CITED OR REFERRED TO.

- Arctic Manual and Instructions for the Arctic Expedition, 1875.
 Chamberlain, Montague. A Catalogue of Canadian Birds, 1887.
 Coues, Elliott. Field Notes on Birds observed along the 49th
 Parallel, 1873-74.
 Dionne, C. E. Catalogue of the Birds of Quebec, 1889.
 Downs, Andrew. Catalogue of the Birds of Nova Scotia, 1887.
 Elliott, Henry W. Report on the Seal Islands of Alaska, 1884.
 Fannin, John. A Preliminary Catalogue of the Birds of British
 Columbia, 1898.
 Hagerup, Andras. The Birds of Greenland, 1891.
 Kumlien, Ludwig. Contributions to the Natural History of
 Arctic America, 1879.
 Lord, John K. A Naturalist in British Columbia, 1866.
 Macfarlane, Roderick. *Proced. Nat. Mus.*, Vol. XIV, 1891.
 McIlwraith, Thomas. Birds of Ontario, 1894.
 Murdoch, John. Report of the Expedition to Point Barrow,
 Alaska, 1885.
 Nelson, E. L. Report upon Natural History Collections in
 Alaska between 1877-81.
 Packard, Alpheus S. The Labrador Coast, 1891.
 Raine, Walter. Bird Nesting in North West Canada, 1892.
 Reeks, Robert. Notes on the Birds of Newfoundland, Canadian
 Naturalist, new series, Vol. V, 1870.
 Richardson, Sir John. *Fauna Boreali Americana*, 1831.
 Ross, Bernard. On the Birds of Mackenzie River District, Can-
 adian Naturalist, Vol. VII, 1862.
 Seton-Thompson, Ernest. The Birds of Manitoba, 1891.
 Streater, Clarke P. On a Collection of Birds made in British
 Columbia in 1889.
 The A. O. U. Check-list of North American Birds, Second Edition,
 1895.
 Turner, Lucien M. Contributions to the Natural History of
 Alaska, 1886; List of the Birds of Labrador, 1885.
 Winge Herlof. *Conspectus of the Birds of Greenland*, 1898.
 Wintle, Ernest D. The Birds of Montreal, 1896.

REPORT OF THE COMMISSIONERS OF THE LAND OFFICE

IN ANSWER TO A RESOLUTION PASSED BY THE HOUSE OF REPRESENTATIVES, JANUARY 18, 1856, RELATIVE TO THE LANDS BELONGING TO THE STATE OF NEW YORK.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

ALBANY: PUBLISHED BY G. B. LEWIS, STATE PRINTING OFFICE, 1856.

PYGOPODES. DIVING BIRDS.

FAMILY I. **PODICIPIDÆ.** GREBES.

I. **ÆCHMOPHORUS.** COUES. 1862.

1. **Western Grebe.**

Æchmophorus occidentalis (LAWR.)

Accidental in Quebec. Mr. Cowper states in *Canadian Sportsman*, Vol. II., that he has seen several specimens on the market in Montreal. (*Dionne*.) Some time before 1881 a pair was shot at the mouth of the North Nation River, Ont. (*Ott. Nat.*) Occasionally shot in the Red River valley, Man. Found in 1881 in great numbers breeding in some of the western bays of Lake Manitoba and on Waterhen River and Waterhen Lake.

Our knowledge of the migration of the Western Grebe is still incomplete, but on May 8th, 1891, specimens were shot at Banff in the Rocky Mountains. The next year it reached Indian Head, 500 miles to the east, on May 12th. At that time the stomachs of the birds shot contained nothing but feathers. Two days later one was shot that had an amphibian (*Amblystoma mavortium*) 10½ inches long in its stomach. By the 30th May they had all disappeared, having gone north to Waterhen, or some other lake, to breed.

A common winter resident along the Pacific Coast. (*Fannin*.) Tolerably common in the Fraser valley below Yale in the spring and autumn migrations. A few remain all winter at Okanagan Lake, B.C. (*Brooks*.)

Fairly numerous on Buffalo Lake, Alberta, July 7th, 1895; downy young taken at the same time. (*Dippie*.) I have found this bird breeding at Shoal Lake, Manitoba. The nests found June 18th, 1894, mostly contained five eggs each. (*Raine*.)

BREEDING NOTES.— Early in June, 1894, a large colony of these birds was found breeding in Crane Lake, Assiniboia, about 100 miles east of Medicine Hat. The colony was located in a large patch of bullrushes (*Scirpus lacustris*) about 100 yards from the shore and in about three feet of water. The eggs were placed

on nests made of mud and the old and broken reeds of the last season; these nests were very rudimentary in form, but in all cases there was a slight depression in the centre where the eggs rested, about six inches above the water. None of the nests had more than five eggs, most of them but four, which seemed to be the usual number. The nests were so placed that they would rise and fall with the water, as indeed is the case with all Grebes. No other birds were breeding in the vicinity and the water around the breeding ground was swarming with individuals which dived, swam, or sunk themselves in the water so that nothing but their curving necks and long sharp bills protruded above it. They doubtless breed in many other lakes in Assiniboia and Alberta, but no other breeding grounds are known to the writer. It is claimed to be a summer resident of British Columbia by Streater and Fannin, but neither of them cites a locality.

MUSEUM SPECIMENS.

Our specimens are a male and female taken at Indian Head, Assiniboia, May 16th, 1892, by Spreadborough. Two sets of eggs—four each—taken at Crane Lake, Assa., June 18th, 1894, by the writer.

II. COLYMBUS. LINNÆUS.

2. Red-necked Grebe. Holbœll's Grebe.

Colymbus holbœllii (REINH.) RIDGW. 1884.

This is a very widely distributed species and extends as a straggler from Greenland (*Arct. Man.*) across the continent to the North Pacific. It is a rare migrant in Nova Scotia (*Downs*); occasionally seen in New Brunswick (*Chamberlain*); large flocks seen on Prince Edward Island, August 8th, 1888 (*Macoun*); Beaufort, Quebec. (*Dionne*.) Seems to be common in Ontario, having been taken at Ottawa (*Ott. Nat.*), at Mitchell's Bay, Lake Huron (*Saunders*), and one taken from a flock of fifteen near Plover Mills, Ont. (*R. Elliott*) Is a regular spring and fall visitor in Ontario. (*McIllwraith*.)

This bird arrived in Prince of Wales Sound, Hudson Strait, about June 20th, 1885, and was often seen during the summer. (*ayne*.) Summer resident chiefly of the shallow fish-frequented lakes of northern Manitoba. (*Thompson*.) Breeding in great

numbers in Waterhen Lake and the southern end of Lake Winnipegosis. It is found in most lakes of the prairie region but prefers the lakes in the forest country north of the Saskatchewan. In 1892 it arrived at Indian Head in eastern Assiniboia on May 11th. At that time their stomachs contained feathers, water-insects and a specimen of *Amblystoma mavortium* seven inches long. Early in June a nest was taken containing eight eggs of a dirty white colour. The nest was made of bullrushes (*Scirpus lacustris*) and floated on the surface of the water. It has been found breeding by Macfarlane in Lat. 68° 30', Long. 128° west, so that its breeding grounds extend from Lat. 50° to the Arctic Sea. Nelson states that it breeds on the Yukon and at Norton Sound, and Fannin that it breeds throughout northern British Columbia, so we may conclude that its breeding grounds are co-extensive with the lakes of the northern forest. It is a winter resident along the Pacific coast of British Columbia. On April 27, 1887, it was seen in large flocks in Nanaimo harbour and along the whole coast to Comox. A few days later they all disappeared. Reported by Brooks to be a common winter resident on Okanagan Lake, B. C.

BREEDING NOTES.—Common at Indian Head, Assa., in the spring of 1892. Breeding in pairs in the reeds along the margins of the lakes. Nest made of reeds, grass and mud, attached to the growing reeds or masses of dead vegetable matter. (*Spreadborough.*) Breeds along the margin of Snake Lake, Alberta. (*Dippie.*) At Shoal Lake, Manitoba, on June 9th, 1894, I found this species breeding abundantly. The nests contained an average of five eggs each. All the nests had the eggs covered with weeds, which is the usual habit of this family, for all the Grebes cover their eggs in the daytime, but when suddenly disturbed from their nests the bird has not time to take this precaution. Two or three pairs breed at Long Lake, Manitoba, and this species also breeds abundantly at Gull Lake, northern Alberta. (*Raine.*) My notes record but two nests of this Grebe, one contained four and the other five eggs, and both were found at a distance of some 40 or 50 miles south of Fort Anderson. (*Macfarlane.*)

MUSEUM SPECIMENS.

Our specimens are three males and one female obtained at Ottawa, Ont., Toronto, Ont., and at Indian Head, Assa. One set of seven eggs taken June 10th, 1892, in a small lake at Indian Head, Assa., by Spreadborough.

3. Horned Grebe.

Colymbus auritus LINN. 1766.

A few immature specimens have been taken in southern Greenland. (*Arct. Man.*) Taken occasionally in Nova Scotia. (*Downs.*) An uncommon summer visitant in New Brunswick. (*Chamberlain.*) A few taken in Quebec. (*Dionne.*) Generally distributed in Ontario, breeding notably at St. Clair Flats. (*McIllwraith.*) One seen in a small pond at East Point, Magdalen Islands, N.S., 1887; undoubtedly breeds. (*Bishop.*) Rather common at Plover Mills, Ont., in September and October. (*R. Elliott.*)

Saunders and Morden found this bird breeding abundantly at St. Clair Flats, Ontario. Thompson says it is very common in Manitoba, breeding in all the small ponds, and Macfarlane procured eggs on the borders of a small lake about 60 miles southeast of Fort Anderson, north of the Arctic Circle. Dr. Bell found it breeding at Fort Churchill on Hudson Bay, and Nelson and Turner say that it breeds in Alaska. Brooks found it on Okanagan Lake, B.C. during the whole winter. The writer has found it breeding from Manitoba to Kamloops in British Columbia, so that its breeding ground practically covers the whole northern part of the continent.

BREEDING NOTES.—Breeds commonly around all small lakes in Alberta. (*Dippie.*) Common at Crane Lake in June, 1884. Breeding in pairs in all the marshes and sloughs. Nests composed of reeds, grass and mud, attached to the reeds, or on floating masses of sticks and sedges. They were also common at Indian Head, Assa., and at Bracebridge, Ont. (*Spreadborough.*) On June 15th, 1893, I found a colony of this Grebe nesting on an island in a small lake seven miles north of Rush Lake, Assiniboia; I have also found it breeding at Long Lake and Shoal Lake, Manitoba. This species lays from five to eight eggs, five or six being the usual number. A few pairs breed at St. Clair Flats, Ont. I have received several clutches of eggs from there. (*Raine.*)

This is a northern species, and rarely breeds in the St. Lawrence valley. I found a nest containing two fresh eggs at Escott Pond, Leeds Co., Ont., 29th May, 1890; also four eggs at the St. Lawrence on the 18th June, 1896. On the occasion of my visit to the Magdalen Islands, in June, 1897, I met with three pairs of this bird in a large pond of water—which at times is brackish—

near the east point, and discovered a nest with two fresh eggs on June 22nd. This nest exactly resembled the one I found on Escott Pond. It was constructed in an exposed position amongst a few rushes, scarcely concealed at all, and the decayed vegetable matter of which it was made was completely soaked with water. The birds are readily identified, but most of the eggs present no obvious difference from those of the Pied-billed Grebe; a few of them, however, are longer and a trifle larger. (*Rev. C. J. Young.*) Breeds in the St. Clair marshes, and in smaller numbers in marshes at Point Pelee, Lake Erie. (*W. Saunders.*)

On June 15th a few nests were seen in a marsh near Crane Lake, Assa. This species, so far as I know, does not breed in colonies. The nests at Crane Lake were placed on small mounds of mud on reeds floating on the water, and the three taken contained four, five and eight eggs respectively.

MUSEUM SPECIMENS.

We have six skins representing this species, three of which were obtained at Toronto, Ont., and three taken at Indian Head, Assa., in May, 1892, by Spreadborough. Our eggs consist of two sets taken by Spreadborough at Crane Lake, Assa. One set of eight was taken June 15th and another of nine June 12th, 1894.

4. **American Eared Grebe.**

Colymbus nigricollis californicus (HEERM.) RIDGW. 1885.

A specimen in the flesh sent to Dr. Yarmir of Lucknow, Bruce Co., Ont., from Colpoy Bay, Lake Huron. (*McIllwraith.*)

A common summer resident in Manitoba, breeding in great numbers in many of the lakes and ponds. They make their nests on rushes, composed of the same material. We found as many as six eggs in some nests, but in the greater number of nests only four. (*Thompson.*) This bird is found in all parts of the prairie region where there is suitable water and cover; it occurs as far north as Great Slave Lake, (*Ross*) and is found all through the southern part of British Columbia. Unlike the Horned Grebe it breeds in colonies or groups of a dozen or more nests, and the writer has often looked down on them in the small lakes of the interior as they sat on their nests with the water all around them. In nearly all cases the eggs were partly covered by water.

BREEDING NOTES.—A colony was breeding in a small pond near Crane Lake, Assiniboia, in June 1894. The outer margin of the pond was chiefly sedge (*Carex aristata*) but within was a growth of bullrushes (*Scripus lacustris*), and on the old stems of these the nests were made. The floating nests were almost on a level with the water, and not infrequently the eggs lay partly in the water. No down or feathers was ever seen about a grebe's nest. Each nest contained from three to four eggs, usually the smaller number. Another colony was seen on a small lake in July 1895, on the Milk River Ridge, Alberta. The nests were all floating and the eggs could be easily seen from the shore, which was high. (*Macoun.*) Breeding in numbers at Burnt Lake, Alberta. A number of sets taken June 14th and 15th, 1896. (*Dippie.*)

I have found this species breeding abundantly at Long Lake and Shoal Lake, Manitoba. On June 9th, 1894, I found a nest containing as many as nine eggs at Shoal Lake, but six or seven is the usual number of eggs laid. (*Raine.*)

Breeding in colonies in sloughs in many parts of the prairie region and British Columbia. Found breeding in lakes at Kamloops, B. C., June 16th, 1889. (*Macoun.*) On June 13th, 1894, saw hundreds of nests in a marsh at the west end of a small lake east of Crane Lake, Assa. The nests were composed of rushes and mud, floating amongst the rushes in about two feet of water. Most of the nests had three eggs in them, others four, and some five, while many had one or two. Evidently the sets were, in many cases, not complete. (*Spreadborough.*)

MUSEUM SPECIMENS.

Our specimens are three in number, taken, one in Manitoba and two at Kamloops, B. C., in June, 1889, by Spreadborough. Three sets of eggs of five each taken at Crane Lake, June 14th, 1894, by Spreadborough.

III. PODILYMBUS LESSON.

6. Pied-billed Grebe. Dab-chick. Hell-diver.

Podilymbus podiceps (LINN.) LAWR. 1858.

Occasionally obtained in the autumn in Nova Scotia. (*Downs.*) A common summer visitant in New Brunswick; breeds. (*Chamberlain.*) Rather common in Quebec. (*Dionne; Hall.*) Quite

widely distributed in Ontario, but most common in the autumn. Breeding from the St. Lawrence and the Great Lakes to Hudson Bay, and west to Great Slave Lake. Abundant in all parts of Manitoba, and specially numerous in August and September on the head-waters of Swan River and the surrounding lakes and marshes. Although so common in the wooded portions of Manitoba it has seldom been observed in the prairie region. One individual was seen near the Dirt Hills, Assa., in October, 1881, by Mr. W. Spreadborough, and Dr. Coues saw it at Turtle Mountain, Assa. Lord, Fannin and Brooks report it as common in British Columbia. Spreadborough reports seeing three in Victoria harbour in April, 1893. It is evidently a forest bird as it is seldom seen on the prairies.

BREEDING NOTES.—I have found this bird breeding at Long Lake, Manitoba, and, like the Eared and Horned Grebes, it often lays as many as seven or eight eggs. I find that all the Grebes cover their eggs with weeds during the day, and the weeds are removed at dark by the bird, which incubates the eggs until the morning sun relieves her of her task. (*Raine.*)

This species commences to build its nest near Ottawa, Ontario, about the first week in May. The nest is built on the edge of a marsh and is about the size of a bushel basket. It is composed of moss, grass, roots and mud. Eggs, five or more in number, are whitish, clouded with green. The nest is very difficult to find, as the old birds cover it over when they leave. (*G. R. White.*)

The Pied-billed Grebe is very common in the River St. Lawrence between Kingston and Brockville. I have seen a number of nests. The nest of this species is a more substantial structure and better concealed than that of the Horned Grebe. In one instance I have known a colony breeding together; this was on June 1st, 1897, where, in a space less than a quarter of an acre, in a retired bay off the River St. Lawrence below Rockport, I found four nests close together—one with seven eggs, one with eight, and two with nine eggs each. These nests, though floating structures, were quite substantial, and were in about three feet of water; all the eggs were covered with weeds and were incubated from a week to ten days. Nowhere else have I found more than eight eggs in the nest, and that number only once. The usual number is seven. (*Rev. C. J. Young.*)

This species is more common on the St. Clair Flats and at Point Pelee than the Horned Grebe. Both species build a floating nest among the rushes, and both cover their eggs when they leave the nest. Set 4-6. (*W. Saunders.*)

MUSEUM SPECIMENS.

We have four representatives of this species in our collection. Two, a male and female, were shot at Ottawa, Ontario, by Mr. G. R. White, in 1884, another at Toronto in 1875 and the fourth in Victoria harbour, B.C., January 24th, 1890, by Spreadborough. One set of five eggs taken on St. Clair Flats, Ontario, June 12th, 1893, received from Mr. Raine.

FAMILY II. **GAVIIDÆ.** LOONS.IV. **GAVIA.** FORSTER. 1788.7. **Great Northern Diver.** Loon.

Gavia imber (Gunn.) Allen. 1897.

This is one of our most widely distributed birds, breeding from Greenland (*Arct. Man.*) in the east to Alaska (*Turner*) in the west. Macfarlane found it breeding at Fort Anderson, in Lat. $68^{\circ} 30'$, and it is frequent as far south as Lat. 49° , so that it is to be found throughout the whole northern part of the continent. Nearly every small lake throughout the country, except in the prairie region, is tenanted in summer by a pair or more of these birds, and the larger lakes by many pairs. All the members of the Geological Survey staff who have found loons' nests agree with Macfarlane that they lay only two eggs, and that no nest is built, but a small depression made in the gravel close to the waters of the lake. In the Laurentian country the eggs are always placed on greenish gravel and are hard to see. In two cases only have nests been found on rock and these were close to the water.

BREEDING NOTES.—Nest always placed near the water, and composed of a little grass. Eggs two. Young usually hatched the last week in June or first week in July. The young are quite helpless for a few days, either riding on the mother's back or hanging on to her tail. I have paddled up to them in a boat on several occasions, and they have sat upon the water as helpless as a leaf until I have taken them up in my hand. They soon become able to take care of themselves and can swim and dive

nearly as well as the old one. Common throughout Labrador; one nest found, July 25th, 1896, on Clearwater Lake, containing two eggs in an advanced state of incubation. (*Spreadborough.*)

This bird breeds at the south end of Lake Manitoba. I have also received the eggs from Morley in Alberta. It breeds commonly on the islands in the Muskoka Lakes, Ontario. A clutch of two eggs in my collection was taken on an island in Lake Donaldson, near Buckingham, Quebec. The eggs were taken June 24th, 1895, by Mr. Warwick. This bird is a late breeder. (*Raine.*)

The nest of this species, if nest it can be called, is only a slight hollow in the earth or ground within a short distance of the water's edge. One found on the 21st June, 1897, at Lake of the Woods, was within six inches of the water's edge. It was only a slight hollow in the sand, and the two eggs were placed therein. (*G. R. White.*)

The loon is a common summer resident in Ontario. It still breeds in many of the retired lakes, and a pair or two frequent the River St. Lawrence for this purpose between Kingston and Brockville. I have found many of their nests and noticed that they return to the same locality year after year even when their eggs have been repeatedly taken. The situation chosen varies; sometimes it is on the shore of some out-of-the-way island, two or three feet from the water's edge. Several nests I found consisted of a mass of weeds and bullrushes piled up in three feet of water, so that a boat could be rowed alongside. They are very punctual in their time of laying; in one locality in the county of Leeds, Ont, I have found the two eggs four years in succession on the 23rd, the 24th, the 25th and the 24th of May. On the River St. Lawrence a little later, from the 1st to the 6th of June. By the great resemblance each set of eggs has borne to the preceding one, I have no doubt but that the same pair of birds returns to the same locality year after year. They generally arrive at the end of April and leave again in September or October. I noticed two pairs of these birds at the Magdalen Islands in June 1897, and think they breed on the fresh-water ponds of the eastern islands. (*Rev. C. J. Young.*)

Found breeding at Lake St. Clair and in the small lakes in the Bruce Peninsula; also at the Pelee Marsh, Lake Erie. Nest at

the edge of the water but on a solid foundation. Eggs, two. (*W. Saunders.*)

MUSEUM SPECIMENS.

Our collection contains two males, both taken at Toronto by Mr. D. A. Herring in 1891. Of eggs we have two sets of two each. One taken by Mr. A. E. Barlow at Snare Lake, Nipissing District, Ont., July 10th, 1895; the other by Mr. W. McInnis at Crow Lake, Rainy River, northwestern Ontario, July 2nd, 1897.

8. **Yellow-billed Loon.**

Gavia adamsii (GRAY) ALLEN. 1897.

Abundant at Great Slave Lake. (*Ross.*) During the breeding season this species abounds in Franklin and Liverpool bays on the Arctic coast, where several examples were shot. (*Macfarlane.*) This fine species, the least known of the Loons, is not a rare summer resident about the head of Kotzebue Sound. (*Nelson.*) This species seems to prefer the extreme northwesterly part of the continent and islands from Liverpool Bay on the east to the mouth of the Yukon on the west.

BREEDING NOTES.—Selawik Lake and Kunkuk River are the places where it is claimed the greater number breed. The shore of Norton Sound is a breeding place for a few pairs, as is the low coast of Behring Strait from Golovina Bay to Port Clarence. (*Nelson.*)

9. **Black-throated Loon.**

Gavia arcticus (LINN.) ALLEN. 1897.

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.*) Not common at Lake Mistassini, but a few breed. (*J. M. Macoun.*) Occurs in winter at Grand Manan in the Bay of Fundy. (*Herrick.*) A pair was taken near Toronto and sent to the Paris Exhibition of 1866. (*McIlwraith.*) Recorded by Andrew Murray from Severn House, Hudson Bay. (*Thompson.*)

This species is known to breed on the margin of small lakes, and very likely also close to the sea, from Cumberland Gulf on the

east (*Kumelin*) along the whole Arctic coast (*Richardson*), and very abundantly along the shore of Behring Sea and in the interior of Alaska as far as Fort Yukon. (*Nelson*.) A few have been taken at Burrard Inlet, B.C.; also at Dease Lake, Cassiar, B.C. (*Fannin*.)

BREEDING NOTES.—In spring the Black-throated Loons arrive rather late, coming to the vicinity of the Yukon mouth from the 15th to 25th May. They appear singly, and are soon after found scattered in pairs among the numberless ponds in the marshes along the coast. The eggs are usually placed upon some small islet in a secluded pond. There is no attempt at a nest, and frequently the eggs lie in a spot washed by water when the wind blows from the right quarter. In spite of this, however, the young are duly hatched, and by the first of July may be found swimming about with their parents. The eggs are dark olive, blotched with black spots, which are generally confluent at the larger end. Very frequently the spots are crowded into a black patch at the very apex of the larger end. (*Nelson*.)

MUSEUM SPECIMEN.

One specimen—a male—obtained by Dr. R. Bell in Hudson Bay in 1884.

10. **Pacific Loon.**

Gavia pacificus (LAWR.) ALLEN. 1897.

A single specimen obtained at St. Michael, Alaska, August 25th, 1876. (*Turner*.) Quite common at Point Barrow, and evidently breeding. The greater number, however, pass to the eastward. (*Murdoch*.) North to Arctic coast. (*Ross*.) Only once observed this bird in the lower Fraser valley, during very cold weather, and shot it. (*Brooks*.)

BREEDING NOTES.—This is the most abundant diver in the region investigated. Nests were discovered in the wooded country, in the Barren Grounds, and on the shores and islands of the Arctic Sea. In all about one hundred and sixty-five nests, most of which contained two eggs, were secured in the course of the five seasons from 1862 to 1866 inclusive. (*Macfarlane*.) This species arrives early in June at Point Barrow, and, as the ponds open, the birds make themselves at home there, and evidently breed in

abundance though we were unable to find the nest. One of their breeding grounds was evidently a swampy lagoon, some five or six miles inland, but the nests were inaccessible. (*Murdoch.*)

11. Red-throated Loon.

Gavia lumme (GUNN.) ALLEN. 1897.

This species is a common summer migrant throughout the northern part of the continent. It breeds in Greenland in both Inspectorates (*Arct. Man.*), and in Newfoundland in small ponds in the marshes, placing its nest in a tussock of grass surrounded by water. (*Reeks.*) A not uncommon summer resident in New Brunswick. (*Chamberlain.*) Abundant in Labrador, and breeding around Hudson Bay and westward, north of the Arctic circle, to Alaska, where it is the most abundant species of Loon. (*Nelson.*)

Two specimens were taken in Esquimalt Harbour, Vancouver Island in March, 1891; in my experience this bird is rare in British Columbia. (*Fannin.*)

It is rarely met with in Quebec, Ontario or Manitoba, and has not been observed in the prairie region or the Rocky Mountains.

BREEDING NOTES.—From the first of June until the first of July fresh eggs may be found. The nesting-sites chosen are identical with those of the Black-throated species. Like the latter species, also, the eggs, two in number, are laid directly upon the ground, and the spot chosen is often wet and muddy. One nest was found on frozen ground, and ice was floating in the pond. The young are led to the streams, large lakes, or sea-coast as soon as they are able to follow the parents, and they fall an easy prey to the hunters until with the growth of their quill-feathers they obtain some wisdom. (*Nelson.*)

MUSEUM SPECIMENS.

There are three specimens of this species in the collection. One—a young male shot at Ottawa in 1885, another at Toronto in 1884, and a third by Dr. R. Bell at Kingston, Ont., in 1882.

Of eggs we have four specimens, two taken at Cape Prince of Wales, in June, 1885, by F. F. Payne, and two collected at Repulse Bay, and received from A. P. Low.

FAMILY III. **ALCIDÆ.** AUKS, MURRES, PUFFINS.V. **LUNDA** PALLAS. 1826.12. **Tufted Puffin.***Lunda cirrhata* (PALL.) 1826.

This species is tolerably common along the coasts of Vancouver Island and the mainland of British Columbia ; breeds in the Gulf of Georgia. (*Fannin.*) It is a common species along the whole coast of British Columbia and Alaska and breeds in suitable localities for nearly the whole distance. Turner says it is particularly abundant on the Aleutian Islands and the whole Alaskan coast. Breeds amongst rocks and lays only a single egg. The nest usually on damp earth at the bottom of a crevice in the rock. (*Nelson.*) Common on the Prybiloff Islands. (*J. M. Macoun.*)

BREEDING HABITS.

This bird has the same habits as the Horned Puffin, and arrives about the same time. It lays a single large white egg of a rounded oval shape. (*Elliott.*)

The nesting habits of this Puffin resemble those of the Horned Puffin. My own observations show that the former prefers the cliffs and edges of bluffs overgrown with grass which has made an accumulation of soil on the tops and edges of some bluffs to a depth of several feet. This soil is a perfect network of holes and burrows of these birds. The nest is usually the bare earth, whereon a single egg is laid. The young take to the water before they are able to fly. The parent assists the young to the water. (*Nelson.*)

MUSEUM SPECIMENS.

We have three specimens of this species two males and one female—collected by Mr. J. M. Macoun, in September, 1896, on St. Paul Island, Behring Sea.

Of eggs we have three also—two collected on St. Paul Island in 1897 by Mr. J. M. Macoun ; and another collected on Queen Charlotte Sound, B. C., 28th June, 1890. The latter specimen received from Mr. Raine, Toronto.

VI. **FRATERCULA** BRISSON. 1760.13. **Puffin.**

Fratercula arctica (LINN.) SCHAFF. 1789.

This species breeds from the Bay of Fundy northward to the islands in Disco Bay, Greenland. It is not recorded from Hudson Bay.

Found breeding in numbers at Bryon Island, one of the Magdalen Islands; in large numbers on Bird Rocks; also at Wreck Bay, Anticosti, and on Parroquet Island, near Mingan Harbour. (*Brewster.*) Common on Greenland coast up to Lat. 70° at least; breeds plentifully on the Hunde and Green Islands, Disco Bay. (*Kumelin.*) A young bird of this species was shot on the Ottawa River towards the end of October, 1881. (*Ott. Nat.*)

BREEDING NOTES.—This species breeds abundantly on Gannet Islands on the coast of Labrador. Mr. Dicks collected for me a number of eggs on July 2nd, 1895, on these islands. The nests consisted of holes in the ground and the single egg is laid at the end of the burrow. (*Raine.*)

This bird breeds sparingly at Bryon Island, the most northerly of the Magdalen group, and plentifully on Great Bird Rock, eleven miles distant. I met with three nests at the former place, 23rd June, 1897. One egg was laid in a hole in the crumbling rock, and at that date incubation had commenced. No nest is formed, the egg being laid on the bare earth. At Bryon Island the breeding holes are difficult to reach, and as the bird sits closely there may be more of them than I supposed. One nest was as much as three feet from the entrance of the hole. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Two males are in our collection, both obtained on the coast of Labrador by Mr. A. P. Low in 1894.

We have one egg taken by Mr. Guy on the Labrador coast in 1896; and another taken on the same coast July 1st, 1892, received from Mr. Raine.

13a. **Large-billed Puffin.**

Fratercula arctica glacialis (TEMM.) BLASIUS. 1862.

Coasts and islands of the Arctic ocean from Spitzbergen to Baffin Bay. (*A. O. U. List.*) One obtained at Grand Manan, New

Brunswick. (*Audubon.*) Not common in Greenland; does not breed further south than Lat. 63° 30' N. (*Arct. Man.*)

BREEDING HABITS.—I have eggs of this species in my collection which were taken in Greenland, June 20th, 1889. The eggs are considerably larger than those of the common puffin. (*Raine.*)

14. Horned Puffin.

Fratercula corniculata (NAUM.) BRANDT. 1837.

Coasts and islands of the North Pacific from the Kurile Islands to British Columbia. (*A. O. U. List.*) Breeding abundantly on all the rocky islands in Behring Sea. (*Nelson.*) This species is abundant on all the shore-line of Alaska, south of the Arctic circle, and in favored localities it abounds in incredible numbers. All the Aleutian Islands with their east and west extensions are a continuous breeding-ground of these birds for over 1000 miles in length. The Prybiloff Islands, St. Matthew and St. Lawrence islands are also great breeding places. (*Turner.*) Common on the Prybiloff Islands. (*J. M. Macoun.*)

BREEDING NOTES.—This mormon comes up from the south about May 10th to the Prybiloff Islands and always in pairs. It makes its nests of dried sea-ferns, grass and moss, slovenly laid together, far back in some deep or rocky crevice, where, when the egg is laid, it is ninety-nine times out of one hundred cases inaccessible. The nest contains but a single egg, large, oblong, oval, and pure white. (*Elliott.*)

The nests of this species are placed on the ledges of the highest cliffs of those islands where foxes are found, and on islands where foxes are not found these birds breed generally at the base of the bluff under the large rocks which have become detached and fallen down. Their nests are composed of just whatever happens to be there, be it sticks, stones, or earth. A single egg of clear white colour is laid on the bare gravel or earth. The egg is very large for the size of the bird and when cooked is tolerable eating. The bird sits long at a time on the egg and does not leave it until hunger compels her to seek food. (*Turner.*)

MUSEUM SPECIMENS.

We have two specimens, a male and female, procured by Mr. J. M. Macoun on St. Paul Island, September 14th and 16th, 1896.

Of eggs we have two specimens, both taken by Mr. J. M. Macoun, on St. Paul Island, Behring Sea in June, 1897.

VII. **CERORHINCA** BONAPARTE. 1828.

15. **Horned-billed Guillemot. Rhinoceros Auklet.**

Cerorhinca monocerata (PALL.) CASS. 1858.

Coasts and islands of North Pacific, breeding southward along the British Columbian coast. (*A. O. U. List.*) Found in the Gulf of Georgia and breeds on the islands around Vancouver Island. (*Lord.*) Coasts of Vancouver Island. (*R. Brown.*) Bischoff secured nine specimens of this species at Sitka during the Telegraph Exploration. (*Nelson.*)

VIII. **PTYCHORAMPHUS**. BRANDT. 1837.

16. **Cassin's Auklet.**

Ptychoramphus aleuticus (PALL.) BRANDT. 1837.

Pacific coast of North America, from the Aleutian Islands to Lat. 49°. (*A. O. U. List.*) Breeds on the Aleutian Islands and is rather common on some of them. (*Turner.*) This species was seen in the Gulf of Georgia between Salt Spring Island and Nanaimo and one shot May 7, 1887. (*Macoun.*) Seen in numbers and one shot on Queen Charlotte Sound. (*Dr. G. M. Dawson.*)

MUSEUM SPECIMEN.

One male collected by Dr. G. M. Dawson, Queen Charlotte Sound, B. C., Sept. 1885.

IX. **CYCLORRHYNCHUS** KAUP. 1829.

17. **Paroquet Auklet.**

Cyclorhynchus psittaculus (PALL.) STEJN.

This species is extremely common in Behring Strait and southward through the whole length of the Aleutian Islands, as well as on the Prybiloff Islands, St. Matthew and St. Lawrence islands. (*Nelson.*) Abundant on the Aleutian Islands, and breeds in all suitable places. (*Turner.*) Common on the Prybiloff Islands. (*J. M. Macoun.*)

BREEDING NOTES.—It comes to the Prybiloff Islands early in May, mute and silent, locating its nest in a deep chink or crevice of some inaccessible cliff, where it lays a single egg, of a pure white colour and oblong-ovate in shape, on the bare rock or earth. (*Elliott.*)

MUSEUM SPECIMENS.

A male and a female of this species procured by Mr. J. M. Macoun on St. Paul Island, Behring Sea, Aug. 15th, 1891.

X. **SIMORHYNCHUS** MERREM. 1819.18. **Crested Auklet.**

Simorhynchus cristatellus (PALL.) BONAP. 1838.

Breeding in great numbers on the islands in Behring Straits, but their breeding grounds are the whole of the Aleutian Islands; nesting on cliffs among loose stones, only one egg to each bird. (*Nelson.*) Only observed on two occasions at St. Michael; in considerable numbers at Bristol Bay, Alaska; and among the Aleutian Islands extremely abundant. (*Turner.*) Found in numbers on the Prybiloff Islands. (*J. M. Macoun.*)

BREEDING HABITS.—This bird makes its appearance early in May and repairs to chinks and holes in the rocky cliffs, or deep down below rough basaltic shingle or a large boulder, to deposit its egg, upon the bare earth or rock. Its egg is pure white and rather rough with frequent discolorations. (*Elliott.*)

MUSEUM SPECIMENS.

A male and a female, both procured by Mr. J. M. Macoun on St. Paul Island, Behring Sea; the male on Aug. 12th, 1891; the female Sept. 16th, 1896.

One egg is in the collection, taken on St. Paul Island, June 18th, 1897, by Mr. J. M. Macoun.

19. **Whiskered Auklet.**

Simorhynchus pygmæus (GMEL.) BRANDT. 1869.

Coasts and islands of the North Pacific from Unalaska through the Aleutian chain to Kamchatka. (*A. O. U. List.*) Breeds abundantly on the Nearer and Commander islands. (*Nelson.*) Breeding on Atka Island, 1879. (*Turner.*)

20. **Least Auklet.**

Simorhynchus pusillus (PALL.) COUES. 1862.

Coasts and islands of the North Pacific, from Sitka and Japan northward. (*A. O. U. List.*) The most abundant water-fowl in Behring Sea. Breeding in immense numbers on the Aleutian Islands. It lays a single white egg under loose boulders in a crevice on the cliff. (*Nelson.*) Common along the whole chain of Aleutian Islands and as far east as Kadiak; abundant on St. George Island in Behring Sea. (*Turner.*)

BREEDING NOTES.—They breed in greatest numbers on about five miles square of basaltic shingle on St. George Island. They make no nest, but lay a single egg far down below amongst the loose rocks. The pure white egg is exceedingly variable in size and shape, usually oblong-oval with the smaller end pointed. (*Elliott.*)

MUSEUM SPECIMENS.

Our collection has three representatives of this species, all taken on St. Paul Island by Mr. J. M. Macoun. One was taken August 16th, 1891; and the other two August 15th, 1896. Four eggs are in the collection, taken by Mr. J. M. Macoun on St. Paul Island in June, 1897.

XI. **SYNTHLIBORAMPHUS** BRANDT. 1837.21. **Ancient Murrelet. Grey-headed Auk.**

Synthliboramphus antiquus (GMEL.) 1788.

St. George Island, one of the Pribyloff group, and at Sitka; breeds abundantly on the Nearer Islands where a few are resident; also at the Chica Islets, in Akutan Pass, near Unalaska. (*Nelson.*) One specimen obtained at Atka Island, June 12th, 1879; breeds in holes made in the turf in the northeast part of the island. (*Turner.*) Sitka Bay, Alaska. (*Dr. Bean.*) One specimen taken at Cape Beale, on the west coast of Vancouver Island in November, 1888. (*Fannin.*)

BREEDING HABITS.—I have a series of 20 eggs of this bird that were taken on Sannak Island, Alaska, on June 26th, 1894. Up to that time very few eggs of this bird had been taken. Mr. Littlejohn found the nests under bunches of rank, matted grass, the nests consisting of a slight excavation, and the eggs resting on

a few blades of grass. The eggs of this species consist of two to the clutch and are unlike the eggs of any other sea-bird. The ground colour is of a deep buff colour, with small longitudinal markings of light-brown and lavender-grey, size, 2'35 x 1'45. The bird sits close on its eggs and in some cases has to be forced off the nest with a stick. (*Raine.*)

I was informed that this species breeds plentifully on Atka Island, one of the Aleutian Islands. They breed in holes made in the turf or sod overhanging the brow of the cliffs. (*Turner.*)

XII. BRACHYRAMPHUS BRANDT. 1837.

23. Marbled Murrelet.

Brachyramphus marmoratus (GMEL.) BRANDT. 1837.

Large numbers of this species were taken at Sitka by Bischoff; Dall found them in the Aleutian Islands; and the writer found them near Unalaska in May, 1877. They probably reach their northern limit in this chain, where they breed. (*Nelson.*) Found in small flocks in Sitka Bay, Alaska. (*Dr. Bean.*) An abundant resident along the coast of British Columbia; breeds on Vancouver Island and on some of the smaller islands in the Gulf of Georgia and on inlets of the mainland. (*Fannin.*) Abundant in Burrard Inlet, B.C., in April, 1889; shot on Barclay Sound, Vancouver Island, August, 1887. (*Macoun.*)

MUSEUM SPECIMENS.

Our collection contains five specimens of this species—four males and one female. Four of the specimens were taken on Burrard Inlet in April, 1889, and the other at Comox, Vancouver Island, June 20th, 1893—all by Spreadborough.

24. Kittlitz's Murrelet.

Brachyramphus kittlitzii BRANDT. 1837.

The first example of this rare bird known to exist in any American museum was secured by the writer in Unalaska harbour the last of May, 1877. (*Nelson.*) One specimen was obtained April 24th, 1879, at Iliuliuk Village, Unalaska Island—said by the Indian who brought it to me to be abundant throughout the year at Sannak Island, breeding there; not rare on Amchitka Island and in the neighbourhood of Old Harbour, on Atka Island, Aleutian Islands. (*Turner.*)

BREEDING NOTES.—The native who brought me the specimen mentioned above told me the bird laid a single pure white egg. The nest is placed amongst the roots of the large tussocks of grass on the edges of bluff and cliff ledges. (*Turner.*)

MUSEUM SPECIMEN.

One young bird collected by Dr. G. M. Dawson, Queen Charlotte Sound, B. C., September, 1885.

XIII. **CEPPHUS** PALLAS. 1769.

27 **Black Guillemot.**

Cepphus grylle (LINN.) BREHM. 1831.

This species is common along the Atlantic coast from the Bay of Fundy (*Chamberlain ; Downs*) northward to Newfoundland (*Reeks*), and very numerous on both coasts of Greenland, and said to remain longer than any other bird. Plentiful on Melville Peninsula, but not so common in the Polar Sea. (*Arct. Man.*) Generally distributed, but nowhere breeding in numbers in the Gulf of St. Lawrence. (*Brewster.*) Common in Hudson Strait ; also east and south shores of Labrador. (*Packard.*) Breeds abundantly in scattered colonies on most of the Magdalen Islands. (*Bishop.*) Seen throughout the year on Prince of Wales Sound, Hudson Strait. (*Payne.*) Common at Quebec. (*Dionne.*) One shot in Burlington Bay, Hamilton, Ontario, many years ago. (*McIlwraith.*) A specimen was shot at Toronto, Ont., about 1885 ; it is now in Mr. John Maughan's collection. (*J. H. Fleming.*)

BREEDING NOTES.—A large series of eggs of this bird was collected for me by Mr. Dicks on Pig Island, Coast of Labrador, June 20th, 1895. Another large series was collected for me in Ungava Bay, Labrador, on July 9th, 1896. This bird lays two eggs in crevices of sea cliffs. I have also eggs in my collection collected on Grand Manan, New Brunswick. (*Raine.*) This is a common species in the Gulf of St. Lawrence, breeding in suitable localities as far west as the mouth of the Saguenay. Numbers of them breed on the Magdalen Islands as well as near Tignish, at the west point of Prince Edward Island. On the 23rd and 24th June, 1897, we found a number of their eggs in the cliffs of Bryon Island. The eggs were mostly fresh, or only incubated a few days at that date. Each bird lays two eggs in a crevice of the

rock, sometimes as much as two or three feet in. No nest is formed the eggs being laid on the bare earth. They do not vary much, but where the soil is damp and its colour red they soon become stained and discoloured. This was the commonest species of sea-fowl I found breeding at the above islands, though on the Bird Rocks several other species are more plentiful. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Two specimens are in the collection, both males, taken by Mr. A. P. Low in the Gulf of St. Lawrence in 1894.

We have 14 eggs, all from the coast of Labrador and Hudson Strait, collected by Payne, Bell, Low and Forde.

28. **Mandt's Guillemot.**

Cephus mandtii (LICHT.) BONAP. 1856.

This species abounds in the arctic seas and straits from Melville Island down to Hudson Bay. (*Richardson.*) Occurs occasionally in Hudson Strait; plentiful on the eastern coast of Labrador; also at Fort George, James Bay. (*Packard.*) Severn House, Hudson Bay. (*Thompson.*) Quite common in Hudson Bay, remaining the whole year, wintering out in the open water. Breeds in large numbers on the outer islands, under loose stones and boulders, laying one or more, commonly two, eggs. Eggs laid on bare rock, without any appearance of nest. (*A. P. Low.*) This species occurs on the Arctic and Behring Sea coasts of Alaska and about the islands in these waters. (*Nelson.*) Occurs rarely at St. Michael; not observed on the Aleutian Islands. (*Turner.*) Rare during the season of open water at Point Barrow, but in November and December they were seen in small flocks. (*Murdoch.*)

MUSEUM SPECIMEN.

One male taken in the North Atlantic, purchased with the Holman collection.

29. **Pigeon Guillemot. Western Guillemot.**

Cephus columba PALL. 1826.

This species is one of the most numerous among the larger water-fowl of Alaska. It occurs in great abundance wherever the coast is bordered by bold headlands or where there are

precipitous islands. Breeds abundantly throughout the whole region. (*Nelson.*) Occurs sparingly at St. Michael, but is abundant on the Aleutian Islands and breeds in great numbers on the newly upheaved island of Bogoslov. (*Turner.*) An abundant resident from Race Rocks, Strait of Juan de Fuca, to Alaska; breeds throughout its range. (*Fannin.*) In large flocks in Burrard Inlet, B.C. in April, 1889. (*Macoun.*)

MUSEUM SPECIMENS.

One specimen taken at Sooke, Vancouver Island, July 30th, 1893, by Spreadborough. Our collection includes two eggs taken on Sea Bird Island, Barclay Sound, west coast of Vancouver Island, June 1st, 1896, by Dr. C. F. Newcombe.

XIV. **URIA** BRISSON. 1760.30. **Common Guillemot. Murre.**

Uria troile (LINN.) LATH. 1790.

Common in winter at Grand Manan, Bay of Fundy. (*Chamberlain*), and on the coast of Nova Scotia. (*Downs.*) Very common and breeding on the islands off the north coast of Newfoundland and Labrador. (*Reeks.*) Common on the eastern and southern coasts of Labrador, not observed in Hudson Strait. (*Packard.*) A few breed in Greenland. (*Arct. Man.*) Found breeding in only two localities in the Gulf of St. Lawrence—at Bird Rocks and Parroquet Islands. (*Brewster.*) Found at the Mingan Islands. (*Dionne.*) Common in Hudson Bay. (*Richardson.*) Sometimes found after a storm on Burlington Bay, Ont. (*McIlwraith.*) I have a specimen shot by Mr. George Pierce at Toronto, Ont., in August, 1897. (*J. H. Fleming.*)

BREEDING NOTES.—Mr. Dicks collected for me a large series of eggs of this bird at Gannet Islands, coast of Labrador, July 2nd, 1895. It lays one large egg on ledges of the sea-cliff. (*Raine.*)

MUSEUM SPECIMENS.

Our collection contains two specimens of this species, both taken in the Gulf of St. Lawrence, by Mr. A. P. Low in 1894.

Ten eggs are in the collection. Six of these are from Labrador Coast, received from Mr. Raine, the other four were procured by Mr. A. P. Low in Labrador in 1896.

30a. **Californian Guillemot. Murre.**

Uria troile californica (BRYANT) RIDGW. 1884.

An abundant resident along the entire Aleutian chain and the mainland coast of the Pacific. Elliott found them to occur on the Prybiloff Islands in small numbers; birds and eggs have been taken at Sitka and Kadiak Island. (*Nelson.*) Observed as far north as St. Matthew Island. (*Turner.*) Abundant in Cook's Inlet, Alaska. (*Dr. Bean.*) The same distribution as the Pigeon Guillemot but not nearly so abundant; appears to be more common, however, at Victoria, B.C., in the winter months. (*Fannin.*)

MUSEUM SPECIMENS.

EGGS.—One egg, said to be collected on the west coast of Vancouver Island, received from Mr. John Tolmie; also five others taken at Fort Wrangle, Alaska, by Dr. Otto Klotz in July 1889.

31. **Brünnich's Murre. Thick-billed Guillemot.**

Uria lomvia (LINN.) BRYANT. 1861.

Abundant in the Bay of Fundy during winter. (*Chamberlain.*) Quite common along the coast of Newfoundland. (*Reeks.*) Doubtless the commonest bird on the Greenland coast, but said not to breed farther south than Lat. 64° N. (*Arct. Man.*) Plentiful on the eastern and southern shores of Labrador, where it resides and breeds. (*Packard.*) Breeds abundantly on Great Bird Rock, Magdalen Islands. (*Bishop.*) This Guillemot frequents the most remote Arctic American seas that have been visited, Greenland and Hudson Bay, and goes south in winter. (*Richardson.*) From Resolution Island to Grinnell Bay and Frobisher Strait they are common, even as far as the mouth of Cumberland Gulf, but apparently rare in its waters. There are large breeding places about capes Mercy and Walsingham; the largest "rookery" being on the Padlic Islands, in Exeter Sound. (*Kumelin.*)

A bird that has become plentiful the last few years in places between Kingston and Brockville. They usually appear in the month of December, and as they are very tame and come almost up to a boat, they are readily slaughtered. Two men killed forty in a short time near Rockport, Ont., in December 1896, just before the River St. Lawrence froze up. None of the common species have been observed in this locality. This bird was seen about

Kingston, July 8th, 1897, and was captured. The nearest breeding ground is the Bird Rocks, 1,200 miles away. (*Rev. C. J. Young.*)

The first record I know of this species for Toronto was a specimen shot in the bay on November 29th, 1893; it is now in my collection. From this date to the middle of December the birds were abundant, about 40 being killed. They have continued coming every winter since, and in 1894 they were very numerous, but have been growing steadily less in numbers, till this winter (December, 1897) I have heard of only half a dozen. The remarkable facts marking the migrations from 1893 to 1897 were the utter absence of food in the stomachs of all specimens examined, their weak condition, and the ease with which they were procured. Many were found dead on the lake shore—presumably from lack of food. A full report of the first occurrence of these remarkable migrations is given in Vol. I. of the *Biological Review of Ontario*, January, 1894. (*J. H. Fleming.*)

In December, 1897, there were many large flocks of this species seen around Ottawa and numerous specimens were taken. No such migration had been recorded in previous years. (*Macoun.*)

BREEDING NOTES.—Breeds in countless numbers at Cape Wolstenolme, Hudson Bay, also in lesser numbers on Digges Island and at Cape Hopes Advance. Their nesting places are on the upturned edges of the ledges, where they straddle their solitary egg in myriads and when disturbed by the discharge of a gun rise so quickly that many of the eggs are dislodged, and fall into the sea. They remain on the bay all the year wintering in the open water. (*A. P. Low.*)

MUSEUM SPECIMENS.

This species is represented by three specimens, all taken in Ontario and Quebec. One, a male, was shot on the Gatineau River at Wakefield, Quebec, in November, 1887. Another, taken at Kingston, Ontario, February 4th, 1897, was received from the Rev. C. J. Young. The third was captured on the ice on the Ottawa River, close to the city of Ottawa, December 12th, 1897, by Mr. W. T. Lawless.

We have two eggs, collected on the coast of Greenland, received from Mr. Raine; six from the coast of Labrador (one white) procured by Mr. A. P. Low in 1896 and four from Davis Inlet received from Mr. Guy in 1896.

31a. **Pallas's Murre. Western Thick-billed Guillemot.**

Uria lomvia arra (PALL.) RIDGW. 1884.

Wherever the coasts and islands of Alaska are bordered by rugged cliffs and rocky declivities, this bird is found in great abundance. It occurs at Kadiak and along the adjacent coasts from Sitka to the peninsula of Alaska. Common around the Prybiloff Islands and the other islands in Behring Sea, and in Norton Sound; it breeds in small numbers in Chamisso Inlet and Kotzebue Sound and on the cliffs near Cape Lisburne. (*Nelson.*) Extremely abundant at Bogoslov where they breed in millions, and throughout the Aleutian Islands. (*Turner.*) Only reaches Point Barrow as a rare straggler. (*Murdoch.*)

BREEDING NOTES.—This bird lays its single egg upon the points and narrow shelves, on the faces of the cliff-fronts of the Prybiloff Islands, straddling over the eggs side by side, as thickly as they can crowd, making no nests. Its curious straddling by which the egg is warmed and hatched lasts nearly twenty-eight days and then the young comes out with a dark thick coat of down, which is supplanted by the plumage and color of the old bird, in less than six weeks. (*Elliott.*)

At Egg Island, about ten miles from the entrance of St. Michael Harbour many of these birds breed every year on the bluffs and ledges. The egg is laid on the bare rock without any pretense of a nest. Only one egg is laid in a season if undisturbed, but will be renewed if the season is not too far advanced. The egg is very large, having a bluish-green ground with dark-brown mottlings of variable outline. (*Turner.*)

MUSEUM SPECIMENS.

We have four eggs of this species collected on St. Paul Island, Behring Sea, in June, 1897 by Mr. J. M. Macoun.

XV. **ALCA** LINNÆUS. 1758.32. **Razor-billed Auk.**

Alca torda LINN. 1758.

Occurs occasionally near Point Lepreau and Partridge Island; also common near the Grand Manan, N.B. (*Chamberlain.*) Not very common in N. S. in winter. (*Downs.*) Common throughout the summer and autumn along the Newfoundland shores. (*Reeks.*)

Not observed in Hudson Strait; abundant and breeding on the eastern and southern shores of Labrador. (*Packard.*) Not rare in West Greenland, but unknown in East Greenland. (*Arct. Man.*) Breeds, but not in large numbers, on the Great Bird Rock, Bryon Island and Entry Island, Magdalen Islands, Gulf of St. Lawrence. (*Bishop.*) Common along the St. Lawrence at Kamouraska, Que. (*Dionne.*) Common from the middle Labrador coast to Frobisher Straits; they are not found in Cumberland Gulf, but are by no means rare on the west coast of Greenland. (*Kumelin.*)

The first notice we have of the occurrence of this species in Ontario is in the published proceedings of the Canadian Institute. The specimen there recorded was taken on December 10th, 1889; a second specimen was taken near the west end of Lake Ontario in November, 1871, and Mr. J. H. Fleming mentions another as having been taken near Hamilton.

BREEDING NOTES.—This species breeds abundantly at Gannet Islands, coast of Labrador. Mr. Dick collected a number of eggs for me on July 2nd, 1895. Like the common Murre, this bird lays its egg on a ledge of the sea-cliff. This species, like the Black or Pigeon Guillemot, sometimes lays two eggs, but one is the usual number. (*Raine.*)

MUSEUM SPECIMENS.

One specimen obtained on the Atlantic coast, purchased with the Holman collection.

Four eggs are in the collection. Two of these were obtained by Mr. A. P. Low at Davis Inlet, coast of Labrador; two others were received from Mr. Raine, who obtained them from Labrador.

XVI. **PLAUTUS** BRÜNNICH. 1772.

33. **Great Auk.**

Plautus impennis (LINN.) STEENSTR. 1855.

Formerly very abundant around Newfoundland, but now extinct. Last living specimen seen in 1852; a dead specimen picked up in Trinity Bay, 1853. (*Reeks.*) First discovered in Greenland in 1574; last specimen killed by Eldey off the southwest point of Iceland in 1844. (*Arct. Man.*)

XVII. **ALLE** LINK. 1806.34. **Dovekie. Little Auk.**

Alle alle (LINN.) STEIJN. 1885.

Winter resident at Grand Manan, N.B. (*Chamberlain.*) Formerly common but now rare along Nova Scotia. (*Downs.*) A very common periodical migrant in October along the Newfoundland coast. (*Reeks.*) Common in Hudson Strait; occurs plentifully along the eastern coast of Labrador. (*Packard.*) Said to breed no further south in Greenland than lat. 68° N., common in Baffin Bay but rare in the Polar Sea. (*Arct. Man.*) Common on the coast of Labrador off Resolution Island, Grinnell Bay and Frobisher Straits, but did not see any in Cumberland Gulf; they are abundant off Exeter Sound and to the northward on the west coast of Baffin Bay. (*Kumelin.*) Godbout, River St. Lawrence, Quebec. (*Dionne.*)

BREEDING NOTES.—I have a number of eggs of this bird from Iceland. Dr. Shufeldt has stated in his Comparative Orders of North American Birds that this bird lays two eggs, but my collector in Iceland has never found more than one egg to a clutch, and has been collecting for fifteen years. Most British Ornithological writers state this bird only lays one egg. It deposits its single pale greenish-blue egg in crevices of the sea-cliffs. Breeds in Greenland on Smith Sound. (*Raine.*)

MUSEUM SPECIMENS.

One male from the Atlantic coast, purchased with the Holman collection. One egg taken on Disco Island, coast of Greenland, in 1894, received from Mr. Raine.

ORDER. LONGIPENNES. LONG-WINGED SWIMMERS.

FAMILY IV. **STERCORARIIDÆ** SKUAS AND JAEGERS.XVIII. **MEGALESTRIS** BONAPARTE. 1856.35. **The Common Skua.**

Megalestris skua (BRÜNN RIDGW. 1880.

Seen twice on the south coast of Greenland by Holbøll. (*Arct. Man.*) One seen sitting in the water in the Straits of Belle Isle. June 22nd, 1882. (*Packard.*) Not very common in winter and

spring around Nova Scotia. (*Downs.*) Seen off the coast of New Brunswick. (*Adams.*) Occasional in the Gulf of St. Lawrence. (*Dionne.*) Great Slave Lake, very rare. (*Ross.*) Appears to be of frequent occurrence on "the George's," Newfoundland, and Nova Scotian banks in winter; seen near Lady Franklin Island, Hudson Strait, in Sept.; they then had young ones on the rocks. (*Kumelin.*)

XIX. **STERCORARIUS** BRISSON. 1760.

36. **Pomarine Jaeger.**

Stercorarius pomarinus (TEM.) VIEILL. 1819.

Said to be the commonest species of the genus in the north; breeds in northern Greenland and has been seen at the Parry Islands and Regent Inlet. (*Arct. Man.*) A rare autumn visitor along the whole Atlantic coast of Canada and Gulf of St. Lawrence. This bird is occasionally seen in company with the large gulls which spend a short time during the severity of the winter around the west end of Lake Ontario. (*McIlwraith.*) Great Slave Lake, very rare. (*Ross.*) Not uncommon in the Arctic seas and northern outlets of Hudson Bay where it subsists on putrid fish; it goes south in winter reaching Hudson Bay in May. (*Richardson.*) Taken at Fort Churchill, Hudson Bay, 1845. (*Dr. Gillespie, Jr.*) Rather common on Hudson Bay in the summer of 1899 but no breeding place seen. (*A. P. Low.*) These birds were first observed at Bonne Bay, Newfoundland, in August, and from this point northward to lat. 71° they were common at nearly all points, and from Belle Isle to Hudson Strait they were abundant. (*Kumelin.*) On the Pacific coast they reached the Yukon mouth May 13th and became more common until the last of the month; abundant at St. Lawrence Island and everywhere in Behring Strait; very numerous along the Arctic coast on the borders of the ice-pack. (*Nelson.*) Arrives at St. Michael by the first week in June; it is a resident of the drier portions of the lowlands, usually solitary, but several may be seen together at one time in the neighbourhood. (*Turner.*) A regular summer visitor at Point Barrow, but the least common of the three species. (*Murdoch.*)

MUSEUM SPECIMEN.

One procured at Great Slave Lake by Mr. Macfarlane in 1887.

37. **Parasitic Jaeger.**

Stercorarius parasiticus (LINN.) SCHÄFF. 1789.

Breeds in both Inspectorates of Greenland, but more commonly in the southern; also on the west coast of Davis Strait and in the Polar Sea. (*Arct. Man.*) Along the Atlantic coast, in spring and autumn, as far south as Grand Manan. (*Herrick.*) Gulf of St. Lawrence. (*Dionne.*) A single specimen was seen July 20th, 18—, near Mingan harbour. (*Brewster.*) South to Fort Simpson, lat. $62^{\circ} 30'$; rare. (*Ross.*) Not uncommon on the Barren Grounds and at Franklin Bay. Nests occasionally procured in these localities. (*Macfarlane.*) This species inhabits the Arctic sea-coast of America. Numerous specimens were taken on Melville Peninsula and North Georgian Islands, as well as in Baffin Bay. Specimens were also taken on the Barren Grounds and at Fort Franklin, lat. $65^{\circ} 15' N.$ (*Richardson.*) A specimen of the melanistic form taken at Fort Churchill, Hudson Bay, 1845. (*Dr. Gillespie, Jr.*) This bird occurs about the entire coast line of Behring Sea, but is most numerous along the low marshy coast of Norton Sound and thence south to the Kuskoquim River. Its breeding range covers the entire region from the Aleutian Islands north to the extreme part of the mainland. (*Nelson.*) A frequent visitor to the Aleutian Islands, and tolerably common at St. Michael. (*Turner.*) Not common at Point Barrow; none breed. (*Murdoch.*) This species has the same general distribution as the Pomarine Jaeger, but is not so common. (*Kumelin.*)

BREEDING NOTES.—I have a clutch of two eggs that were taken at Skonntzaz, Greenland, on June 11th, 1890. (*Raine.*)

Birds in the black plumage are rare in the spring, but are sometimes seen; and at the Yukon mouth, on May 31st, I found a pair in this plumage mated. The eggs are laid upon the mossy knolls or uplands in their haunts about the 5th of June. The nest is merely a depression in the moss, containing two eggs indistinguishable from the next species. (*Nelson.*)

38. **Long-tailed Jaeger. Buffon's Skua.**

Stercorarius longicaudus VIEILL., 1819.

Said not to breed farther south than lat. $70^{\circ} N.$, in Greenland. (*Arct. Man.*) A very few of these birds visited the upper waters

of Cumberland Gulf in June, 1871, and soon disappeared; I doubt if they breed there. (*Kumelin.*) Occasionally seen from Greenland south along the Labrador coast (*Packard*); Newfoundland (*Reeks*); coast of Nova Scotia (*Downs*); in the Bay of Fundy (*Boardman*); Gulf of St. Lawrence (*Dionne*); occasionally taken in Hudson Bay (*Dr. R. Bell*); south to Lapierre's House on the Mackenzie River. (*Ross.*) Quite abundant along the Anderson River and on the Barren Grounds, and also on the Arctic coast. (*Macfarlane.*) This is the most common of the Jaegers on the Alaskan coast; rare on the Prybiloff Islands. They are abundant on the low coast of Behring Strait, but, except at Kotzebue Sound, they are not common beyond that point. (*Nelson.*) Arrives earlier at St. Michael and in greater numbers than its congeners; rarely seen on the eastern Aleutian Islands, but a few pairs are said to breed near St. Michael. (*Turner.*) This is the most common species of Jaeger at Point Barrow, and is rather abundant, but none breed. (*Murdoch.*) Once shot and several times seen during September, 1890 and 1891, at Sumas Lake, B.C. (*Brooks.*)

BREEDING NOTES.—The pairing occurs with a great amount of noisy demonstration on the part of several rivals, but once paired the birds keep by themselves and early in June deposit their eggs in a depression on the mossy top of some knoll upon a rising ground. (*Nelson.*)

MUSEUM SPECIMENS.

One specimen procured at York Factory by Dr. R. Bell.

One egg taken at George River, Ungava Bay, Labrador, by J. Forde, 1896.

FAMILY V. **LARIDÆ** GULLS AND TERNS.

XX. **PAGOPHILA** KAUP. 1829.

39. **Ivory Gull.**

Pagophila alba (Gunn.) Coues. 1897.

A very rare periodical migrant on the northwest coast of Newfoundland. Three shot in Parson's Pond January 1867-68. (*Reeks.*) One specimen observed in Halifax harbour prior to 1869. (*Jones.*) Rare along the Nova Scotia coast. (*Downs.*) An immature bird shot at St. John; a winter visitant at Grand

Manan, N.B. (*Chamberlain.*) Coast of Labrador. (*Dionne.*) Seen on the edge of the ice in Hudson Bay near Great Whale River in spring and winter. (*A.P. Low.*) Occasionally seen on Lake Ontario. I succeeded after two season's work in obtaining a fine specimen of an adult male by getting the fishermen to attach a long line to the stern of their boat with a hook at the end baited with cisco. (*McIlwraith.*)

Circumpolar; eggs obtained on Cape Krabbe, lat. 77° 25' N. (*Arct. Man.*) This beautiful gull frequents Davis Strait, Baffin Bay, and various parts of the northern shores of the American continent, breeding in great numbers on the high perforated cliffs which form the extremity of Cape Parry, in lat. 70°. (*Richardson.*) A rare visitor at Point Barrow; only two being seen in the spring, but more common in the autumn. (*Murdoch.*) Very common in Kingwah Fjord and vicinity just before it froze up, for a few days only; none seen in spring; does not breed in Cumberland Gulf. (*Kumelin.*) One specimen taken at Dease Lake, Cassiar, B. C., by Mr. James Porter, in September, 1889. (*Fannin.*)

MUSEUM SPECIMEN.

The specimen in our collection was taken on the Atlantic coast in 1884.

XXI. **RISSA** STEPHENS. 1825.40. **Kittiwake Gull.**

Rissa tridactyla (LINN.) BONAP. 1838.

Breeds in both Inspectorates, but more commonly in the southern part of Greenland. (*Arct. Man.*) Common along the Atlantic coast, south from Greenland, especially in winter. A rather common resident in New Brunswick. (*Chamberlain.*) Breeding in considerable numbers at Bird Rocks and on the limestone cliffs at Wreck Bay, Anticosti. (*Brewster.*) Breeds plentifully on the northern portions of the Atlantic coast of Labrador; Verrill reports them breeding in immense numbers on the eastern and northern shores of Anticosti. (*Packard.*) Common off Great Whale River, Hudson Bay, on the edge of the ice in the winter of 1898-99. (*A. P. Low.*) Quite common on the River St. Lawrence. (*Dionne*), and reaching the western end of Lake Ontario in considerable numbers. (*McIlwraith.*)

This species abounds in the interior of the Northwest Territories and on the shores of the Arctic Sea, where it breeds. (*Richardson.*) First observed in the Strait of Belle Isle on our outward passage in August, 1877; from this point northward they were constantly with us and extremely abundant until the ice covered the water; they are altogether absent from Cumberland Gulf in spring and summer. (*Kumelin.*)

MUSEUM SPECIMENS.

In our egg collection we have two specimens, one taken on Disco Island, Greenland, by Inspector Anderson in 1894; another in Davis Strait; both received from Prof. D'Arcy Thompson.

40a. **Pacific Kittiwake.**

Rissa tridactyla pollicaris RIDGW. 1884.

Found along the coast of Vancouver Island and in the Gulf of Georgia. (*Lord.*) The entire coast line of Alaska, with all its numerous islands, both near the mainland and far out at sea, are inhabited by this beautiful gull; it nests abundantly at the head of Norton Bay. (*Nelson.*) A common bird at St. Michael when the ice breaks up after the middle of May. The great breeding ground of the species is further south; on the Prybiloff Islands and some of the western Aleutian Islands this species breeds in thousands; breeds sparingly at St. Michael. (*Turner.*)

BREEDING NOTES.—This bird has the same habits as *R. brevirostris*. In building its nests it uses more grass and less mud-cement than that species does. The eggs are more pointed at the smaller end and lighter in ground colour, with numerous splotches of dark brown colour. (*Elliott.*)

MUSEUM SPECIMENS.

Two fine specimens taken on St. Paul Island, Behring Sea, by Mr. J. M. Macoun.

41. **Red-legged Kittiwake.**

Rissa brevirostris (BRUCH) LAWR. 1858.

Seen in considerable numbers at Unalaska, May 26, 1877; abundant on the Prybiloff Islands, especially on St. George Island, where they congregate in thousands and breed. (*Nelson.*) Not a common bird at St. Michael; the Aleutian and Prybiloff islands are its home. (*Turner.*)

BREEDING HABITS.—This bird reaches the Prybiloff Islands about May 9th for the purpose of breeding. It uses dry grass and moss cemented with mud which it gathers by the fresh water pools and ponds scattered over the islands. The nest is solidly and neatly put up, both parents working. The nests are placed on inaccessible shelves and points of mural rocks and can scarcely be reached except a person be lowered by a rope. Two eggs are the usual number, though occasionally three will be found in the nest. The eggs are the size and shape of hens' eggs, but covered with a dark gray ground spotted and blotched with sepia spots. (*Elliott.*)

MUSEUM SPECIMENS.

One fine egg taken by Mr. J. M. Macoun on St. Paul Island, Behring Sea, Sept. 16th, 1896. Seven eggs, some of which are of this species and some of the last, were also brought from St. Paul Island by Mr. Macoun, but as they were procured from natives their identity is uncertain.

XXI. **LARUS** LINNÆUS. 1758.42. **Glaucous Gull. Burgomaster.**

Larus glaucus BRÜNN. 1764.

The most common large gull in Greenland, breeds with the other gulls. (*Arct. Man.*) Not rare on Hudson Strait; breeds plentifully on the eastern and southern coasts of Labrador. (*Packard.*) Common along the Atlantic coast from Greenland to Newfoundland. (*Reeks.*) Southward it is rare and only in winter. (*Jones.*) One shot in St. John harbour, N. B. (*Chamberlain.*) Common in the river and gulf of St. Lawrence. (*Dionne ; Dr. Hall.*) During the winter months this bird is not an infrequent visitor to Lake Ontario. It was shot at Toronto in 1884 and in 1889. (*McIlwraith.*) Abundant on Great Slave Lake. (*Ross.*) A great many of these gulls nest in Cumberland Gulf and are common in other places. (*Kumelin.*) Large numbers were found breeding on the ledges of high cliffs at Richmond Gulf, Hudson Bay, in July, 1898. (*A. P. Low.*)

BREEDING NOTES.—Altogether some twenty nests of this species were gathered, chiefly on sandy islets in the bays of Franklin and Liverpool; a few of these were also found on islands on the Lower Anderson. Fifteen of the nests contained

two eggs each, but five had as many as three. The nest was usually a shallow depression in the beach. In one of them we discovered an egg of the Black Brant. (*Macfarlane.*)

In the summer of 1896 this species was found breeding by the large lakes in northern Labrador. (*Spreadborough.*)

MUSEUM SPECIMENS.

One specimen taken off Resolution Island, Hudson Strait, in 1885 by Dr. Bell.

There are 14 eggs of this species in our collection. Two taken at Disco, Greenland, six at Cape Prince of Wales, Hudson Strait; three from an island near Great Whale River, Hudson Bay, and three from James Bay.

42a. **Point Barrow Glaucous Gull. Western Glaucous Gull.**

Larus barrovianus RIDGW. 1886.

All the islands of Behring Sea and all its dreary coast-line are familiar to this great gull. In summer it occurs from the Aleutian Islands north to the farthest points reached by the hardy navigators in the adjoining Arctic ocean. Common in the Yukon delta. (*Nelson.*) This gull is the earliest to arrive at St. Michael; few breed here, but on the Aleutian Islands it breeds in thousands; at Karluck on Kadiak Island it was in countless thousands in August, 1881. (*Turner.*) Abundant at Point Barrow. (*Murdoch.*) Abundant at Cape Lisburne, Arctic Sea. (*Dr. Bean.*) They do not breed on the Prybiloff Islands, but in large numbers on Walrus Island, about six miles from St. Paul Island, to which island they come to feed on the dead carcasses of seals, and from which they carry food to their young on Walrus Island. It is reported that they destroy the young seal pups by picking out their eyes. (*J. M. Macoun.*)

BREEDING NOTES.—This bird breeds on Walrus Island where there are no foxes. It builds neat nests of sea-ferns and dry grass placed among the turfy tussocks on the centre of the island. It lays early in June three large eggs of a spherically oval shape, which have a dark grayish-brown ground with irregular patches of darker brown-black. (*Elliott.*)

This gull nests in a tussock of grass that may grow in the middle of a pond in the lowlands, otherwise foxes might disturb it. The nest is built of grass and other material. The eggs are

deposited early in June and are two or three in number. Should the eggs be removed the parent will renew the complement, but only one or two will be laid. The period of incubation is about three weeks. The young are downy and pure white on their first appearance, but soon change to gray with darker mottlings. (*Turner.*)

On June 4th, near St. Michael, the first nest was found. It was placed on a small islet, a few feet across, in the centre of a broad, shallow pond. The structure was formed of a mass of moss and grass, piled up a foot or more high, with a base three feet across, and with a deep central depression lined with dry grass. There was a single egg. The female as she sat on the nest was visible a mile away, and not the slightest opportunity was afforded for concealment on the broad surrounding flat. Other nests were of the same character and contained from one to three eggs. (*Nelson.*) Mr. Macfarlane's note under *L. glaucous* probably refers to this species.

43. Iceland Gull. White-winged Gull.

Larus leucopterus FABER. 1882.

Breeds in both Inspectorates of Greenland, but more commonly in the southern; also observed on the east coast, and said to breed on the Parry Islands. (*Arct. Man.*) Common in the autumn and winter from Greenland to Newfoundland. (*Reeks.*) Rare on the coast of Nova Scotia. (*Downs.*) A pair shot in St. John harbour in 1881. (*Chamberlain.*) Godbout River, St. Lawrence River, Quebec. (*Dionne.*) A single specimen taken at Toronto is in the collection of Mr. J. H. Ames. (*J. H. Fleming.*)

Several nests of this species, and the parent bird, were procured on the shores of Franklin Bay, arctic coast, early in July, 1863 and 1864. (*Macfarlane.*) During Captain Ross's and Sir Edward Parry's first voyages many specimens of this gull were obtained in Davis Strait, Baffin Bay, and at Melville Island. (*Richardson.*) This species is far less common in Cumberland Gulf than the Glaucous Gull; on the Greenland coasts, however, it is the most common species except the Kittiwake. (*Kumelin.*)

44. Glaucous-winged Gull.

Larus glaucescens NAUM. 1840.

During May, 1877, this bird was abundant about Unalaska, and also upon the Akutan and Sannak islands to the east. It

breeds abundantly on the Near Islands, and has been taken at Sitka and Kadiak, and extends south to California. The centre of abundance of this species during summer may be located along the Aleutian Islands. (*Nelson.*) Occurs sparingly at St. Michael, but is more common on the Aleutian Islands and Kadiak. (*Turner.*) Common at Port Clarence, Alaska. (*Dr. Bean.*)

An abundant resident in British Columbia; breeds on some of the islands in the Gulf of Georgia; frequents our harbours during the winter months. (*Fannin.*) An abundant winter resident in the Lower Fraser valley and on Lake Okanagan, B. C. (*Brooks.*) Abundant in Burrard Inlet, B.C., in April, 1889; very abundant in the Gulf of Georgia from Victoria to Comox in April, 1887. (*Macoun.*)

BREEDING NOTES.—The usual nesting places of this Gull are the faces of rugged cliffs, at whose base the waves are continually breaking, and where the coast exposes its wildest and most broken outline. On the other hand, Mr. Dall relates that about the 18th of July, at Coal Harbour on the Shumagins, on a peculiar, high, round island, abundance of eggs were found, but most of them pretty well incubated. In this case, the island being covered with tall rank grass, the nests were almost concealed, and, either from the dead grass naturally occurring in the depressions, or otherwise, all of them had more or less dry grass in and about them. The gulls built solely on the top of the highest part of the island, in the grass, and never on the lower portions near the shore, nor on the shelves of the rocky and precipitous sides. (*Nelson.*)

MUSEUM SPECIMENS.

Three fine specimens, taken by Mr. John Fannin near Victoria, Vancouver Island, January, 1896.

Three eggs, or a full set, of this species were taken on Mittenatch Island, off the west coast of Vancouver Island, by Dr. C. F. Newcombe, June 18th, 1896.

45. **Kumlien's Gull.**

Larus kumlieni BREWST. 1883.

This species is quite common in the upper waters of Cumberland Gulf, where it breeds; arrived with the open water and soon began nesting; the nest was placed on the shelving rocks

on high cliffs ; two pairs nested very near our harbour, but were torn down by the ravens. (*Kumelin.*) A few specimens taken in the Bay of Fundy, N.B. (*Chamberlain.*) North Atlantic coast of North America. (*A. O. U. List.*)

MUSEUM SPECIMEN.

One specimen, procured at St. John, N. B., by Mr. Chamberlain.

48. **Nelson's Gull.**

Larus nelsoni HENSH. 1884.

Type specimen captured at St. Michael, June 20th, 1877. (*Nelson.*) Apparently not taken since ; the writer can find no further record.

47. **Great Black-backed Gull.**

Larus marinus LINN. 1758.

Breeds generally throughout Danish Greenland, but most commonly between lat. 63° and 68° N. (*Arct. Man.*) Reeks says that in Newfoundland it builds its nest of grass or rushes most commonly in freshwater ponds or lakes ; it is said to breed commonly in Labrador and Brewster saw young on Anticosti and believes it breeds there. Jones says it breeds on islands off the coast of Nova Scotia. It is common along the Atlantic coast, and Chamberlain says it resides in New Brunswick. Common in the Gulf of St. Lawrence and ascending the river to Lake Ontario where it is occasionally seen. One has been seen in the vicinity of Ottawa, Ont.

BREEDING NOTES.—This species breeds on Gannet Island, coast of Labrador, where Mr. Dicks collected for me a number of clutches on June 15th, 1895. The nests were built on the rocks and made of sea-weed and usually contained three eggs each. Sometimes only two eggs are found in a nest. (*Raine.*)

MUSEUM SPECIMENS.

One specimen procured at St. John, New Brunswick, by Mr. Chamberlain.

Seven eggs, one taken on Disco Island, Greenland, by Inspector Anderson in 1894 ; three on Isle de Haute, Nova Scotia, by the light-house keeper, June 10th, 1894 ; two from Grand Lake, Nova Scotia, taken May 24th, 1890, by Col. Egan ; one taken on

Hamilton River, Labrador, by Mr. A. P. Low, 1894; two sets of three each taken in Nova Scotia May 29, 1898, by H. F. Tufts.

48. **Slaty-backed Gull.**

Larus schistisagus STEJN. 1884.

In September, 1880, Capt. C. L. Hooper, of the *Corwin*, took the first example of this bird known, from the west coast of America, at the Diomed Islands, Behring Straits. (*Nelson.*) Abundant, feeding at the mouth of the river falling into the head of Chernoffsky Bay, Unalaska, October 1st, 1880. (*Dr. Bean.*) As Stejneger found it breeding on the Asiatic coast, it is doubtless commoner than its present limited known range indicates.

49. **Western Gull.**

Larus occidentalis AUD. 1839.

Found along the Vancouver Island coast and in the Gulf of Georgia. (*Lord.*) A resident of British Columbia; very abundant on the coast during the winter months; found breeding in the Similkameen Valley. (*Fannin.*) Common in Burrard Inlet in April 1889; large flocks were seen at Comox May 2nd, 1887, and a few between Comox and Nanaimo on May 6th. (*Macoun.*)

MUSEUM SPECIMENS.

Two eggs taken on the west coast of Vancouver Island, on 16th June, 1894, received from Mr. Raine,

50. **Siberian Gull.**

Larus affinis REINH. 1853.

Northern Asia. Accidental in Southern Greenland. (*Ridgway.*) Only North American as occurring in Alaska and accidentally in Greenland. (*Coues.*)

51. **European Herring Gull.**

Larus argentatus BRÜNN. 1764.

Exceedingly rare bird in Greenland and not known to have occurred further north than Gotthaab. (*Arct. Man.*)

51a. **American Herring Gull.**

Larus argentatus smithsonianus COUES. 1873.

This species is the most widely diffused of all our gulls and is as much at home breeding in the far inland lakes as along the coast of the Atlantic, around Hudson Bay, along the shores of the Arctic seas or on the Upper Yukon.

We have records of its breeding in Newfoundland, Labrador, Nova Scotia, New Brunswick, Quebec, Ontario, Manitoba, throughout the whole prairie region and north to Hudson Bay and the Arctic sea, and across the Rocky Mountains to the Upper Yukon, where Dall found it breeding in numbers. Fannin reports it breeding on the coast of British Columbia and also in the interior.

BREEDING NOTES.—Breeding in large numbers on an island in Crane Lake, Assa., between June 9th-18th, 1894. Nest, a shallow hole in the ground lined with dry grass and weeds. Eggs, three as a rule; never more. A number of the young were hatched by June 9th, but the greater number about the 18th, when many young were running about the island, and some took to the water and swam away. (*Macoun.*)

The men on Crane Lake Farm said that the old birds killed gophers (*Spermophilus Richardsoni*) and fed them to their young. (*Spreadborough.*) This species breeds in numbers at Buffalo Lake, Alberta. (*Dippie.*)

I found this species breeding abundantly at Shoal Lake, Manitoba, on June 18th, 1894. The nests were built on the ground on the islands, were composed of weeds, and contained three eggs each. (*Raine.*)

The American Herring Gull is a common species along the St. Lawrence. A few years ago it used to breed on Pigeon Island and the Lower Ducks, Lake Ontario, but owing to constant disturbance it no longer breeds in those places, and I doubt if any now nest around Lake Ontario. It is still plentiful in the neighbourhood of Parry Sound, Lake Huron, and on other lakes in Northern Ontario. (*Rev. C. J. Young.*)

This gull breeds on the small islands off the coast of Bruce Co., Ont., in the Georgian Bay and off Manitoulin Island. Nest in a dry situation. The fishermen take the eggs for food in considerable quantities. I have one egg taken by them which is of

a light blue colour, and unspotted. No eggs that I saw were other than this species, though it seems probable that the Ring-billed Gull, which is very common in Georgian Bay, may also breed in the same localities. (*W. Saunders.*)

In July, 1868, the writer found this species breeding on small islands in Gull Lake, Victoria Co., Ontario, and in 1870 on a small rocky island in Gull Lake, Barry Township, Addington Co., Ontario. All the "Gull" lakes in Ontario were no doubt named after this gull.

The writer made a trip on June 22nd to the island in Crane Lake, where Mr. Spreadborough obtained the eggs on the 9th of the same month. After a drive of five miles we reached the margin of the lake, and, as the island was a quarter of a mile from shore, we divested ourselves of part of our clothing and waded out—taking care not to stand long enough to sink in the white mud of the bottom. We had scarcely reached the shore before we were surrounded by multitudes of common Terns, Ring-billed and Herring Gulls, Cormorants and various waders.

The south end of the island was the lowest, and here the Terns had their little nests placed on the ground amongst the short grass. By far the greater number contained three eggs, but none had four. Passing more to the north, and on a higher level, we found the Ring-billed Gull breeding, also in multitudes, and as we approached their nests they rose screaming, and did not cease till we left the island. Ascending a little higher, but passing to the north, we came among the Herring Gulls but many of their nests were empty, and the downy young were either hidden in the grass or running to the water as fast as possible, while many were swimming about. On the highest point of the island we found 29 nests of the Double-crested Cormorant. The nests, fully a foot high, were built on regular bases of broken sticks. These nests formed a group by themselves, and evidently formed the line of separation between the Herring Gulls and the Ring-billed. The sticks had all been carried for a long distance, as no willows grew within a couple of miles of the lake.

MUSEUM SPECIMENS.

One taken at Toronto by S. Herring, 1884. Our collection of eggs of this species numbers eighteen. Six of these were taken on Sturgeon Island, Lake Winnipeg by Mr. J. B. Tyrrell on 1st

June, 1889 ; thirteen on an island in Crane Lake, June 9th, 1894, by Mr. W. Spreadborough.

52. **Vega Gull.**

Larus vegæ (PALMÉN) STEJN. 1888.

Behring Sea and adjacent waters, south in winter to California and Japan. (*A. O. U. List.*)

53. **California Gull.**

Larus californicus LAWR. 1854.

Great Slave Lake, abundant. (*Ross.*) Quite a number of specimens with eggs were received from Eskimos of the Lower Anderson, lat. 68° 30': (*Macfarlane.*) Found along the Vancouver Island coast and in the Gulf of Georgia. (*Lord.*) An abundant resident ; breeds in the interior of British Columbia ; a winter resident along the coast, during which time it appears in great numbers in our harbours. (*Fannin.*) Common in the Lower Fraser valley and on Lake Okanagan, B.C., in winter. (*Brooks.*)

54. **Ring-billed Gull.**

Larus delawarensis ORD. 1815.

Common throughout the summer at Newfoundland. (*Reeks.*) Apparently rare around the coasts of Nova Scotia and New Brunswick, and not very common in the River and Gulf of St. Lawrence. Very common on Lake Ontario at its western end during the winter. (*McIlwraith.*) Common at Lake Mistassini, Que., where it breeds. (*J. M. Macoun.*) Breeds in the vicinity of Hamilton Inlet, east coast of Labrador. (*A. P. Low.*) Breeds in the small lakes in northern Ontario ; found in the northern part of Addington Co. in 1870, and near Minden, in Victoria Co. in 1868. It bred on islands in the lakes just as it does now in the prairie region, where it is abundant in all large lakes and ponds from Manitoba to the Rocky Mountains and northward. One specimen was taken on Loon Lake, B.C., and it was common on Shuswap Lake, in June, 1889. (*Macoun.*) A winter resident on the coast of British Columbia ; breeds in the interior, especi-

ally to the northward. I found it on Dease Lake during the summer. (*Fannin.*) Common in the Lower Fraser valley, and on Lake Okanagan, B.C., in winter. (*Brooks.*)

BREEDING NOTES.—Very abundant and breeding in great numbers on an island in Crane Lake, Assa. Nests on the ground made of dry grass, smaller than those of the Herring Gull. Eggs, never more than three, while a few nests contained only two. A number of the young were hatched by June 9th, and the bulk of the nests had young by the 18th June, 1894. This species breeds later than the Herring Gull. A few were observed breeding at Deep Lake, near Indian Head, Assa., June 3rd, 1892. (*Spreadborough.*) This species breeds at Buffalo Lake, Alberta. (*Dippie.*) I have found this species breeding at Rush Lake, Assiniboia, and at Shoal Lake, Manitoba. It makes its nest on the ground and lays three eggs. (*Raine.*)

MUSEUM SPECIMENS.

One taken at Toronto, Ont., by S. Herring in 1882.

Sixteen eggs. Two of these were taken on an island in Lake Manitoba by Mr. Dippie in 1893, and fourteen from an island in Crane Lake by Mr. W. Spreadborough on 9th June, 1894. We have also three eggs from Labrador taken in 1896.

55. **Short-billed Gull.**

Larus brachyrhynchus RICH. 1831.

A specimen shot in the vicinity of Quebec is now in the museum of Laval University. (*Dionne.*) More numerous and widely diffused than the other gulls. Many nests were procured at Fort Anderson, lat. 68° 30'. (*Macfarlane.*) Type specimen killed on Bear Lake, May 26th, 1826. (*Richardson.*) This elegant species is abundant over a large part of the Alaskan mainland. Dall found it at Sitka and Kadiak, and from Fort Yukon to the sea along the Yukon River. It is found nesting from the peninsula of Alaska north to the head of Kotzebue Sound and from the sea coast region it breeds interiorly over Alaska into British Columbia. (*Nelson.*) Abundant on the Aleutian Islands. (*Turner.*) A winter resident on the coast of British Columbia; during the early part of May 1891 I saw quite a number on the lakes of the Cariboo district where it probably breeds. (*Fannin.*) Common in the Lower Fraser valley, B. C. (*Brooks.*)

BREEDING NOTES.—At the Yukon mouth and St. Michael May 14th is the earliest date they were noticed in spring. As a rule they are rare until the 20th or 25th May, about which time they find the ponds and sluggish streams open in the coast country. They undoubtedly reach interior localities earlier in the season, as spring is considerably earlier there.

They nest, like the Glaucous Gull, upon small islets in ponds and lakes. A bulky nest is prepared of grasses and mosses early in June, in which two or three eggs are laid. (*Nelson.*)

The nest of this species is usually a small cavity in the sand by the side of a stream or sheet of water. It also frequently builds on a stump or tree, and in such cases dry twigs, hay and mosses are used in its construction. A good many sets of eggs were taken at Fort Anderson, lat. 68° 30'. (*Macfarlane.*)

MUSEUM SPECIMENS.

A fine pair taken in Victoria harbour in January, 1896, by Mr. John Fannin.

56. **Mew Gull.**

Larus canus LINN. 1758.

Accidental in Labrador. (*A. O. U. List.*)

57. **Heermann's Gull. White-headed Gull.**

Larus heermanni CASS. 1852.

Found in the Gulf of Georgia and along the coasts of Vancouver Island. (*Lord.*) Not common in the Gulf of Georgia, though they appear to remain during the summer. Four specimens, the young of the year, were taken off the mouth of Esquimault Harbour in the latter part of July by Dr. Hazell, of Victoria. (*Fannin.*)

MUSEUM SPECIMENS.

One taken in 1885 on Malcolm Island, Gulf of Georgia, B.C. by Dr. G. M. Dawson; a fine pair taken at Esquimault in January, 1896, by Mr. John Fannin.

58. **Laughing Gull.**

Larus atricilla LINN. 1758.

On May 23rd, 1890, a gull was brought to my store. It had been shot on Toronto Island, and, being unlike any of our native

species, I had it thoroughly examined, and it proved to be a male Laughing Gull. This, I believe, is the first record of this bird in Ontario. (*William Cross.*) Coast of Nova Scotia. (*A.O.U.List.*)

MUSEUM SPECIMEN.

One bought with Holman collection in 1885.

59. **Franklin's Rosy Gull.**

Larus franklinii Sw. & RICH. 1831.

Accidental on Hamilton Bay, Ont., two specimens shot, one in 1865, the other later. (*McIlwraith.*) Although no specimens of this species were taken, I am inclined to believe that they breed in the Anderson River district. (*Macfarlane.*) This is a very common gull in the interior of the Northwest Territories, where it frequents the shores of the larger lakes. It is generally seen in flocks and is very noisy. It breeds in marshy places. (*Richardson.*) Shot by Spreadborough at Indian Head, Assa., on May 20th with stomachs full of grasshoppers, showing they had come from far to the south. They are very abundant throughout the marshy parts of Manitoba during summer, breeding in nearly all large marshes. In Assiniboia they are also abundant and breed in great numbers as far west as Cypress Lake, where there are marshes. Later in the season they gather in great numbers around the larger salt lakes, and mix with the Ring-bill and Herring Gulls.

After they arrive in Manitoba they follow the farmers in the fields and gather 'cut-worms' and other larvæ turned up by the plough. (*Percy Selwyn.*)

BREEDING NOTES.—This species, unlike the Herring Gull and the Ring-bill, breeds in communities in marshes. Hundreds of nests were found June 13th, 1894, in a marshy lake about three miles southeast of Crane Lake; incubation was far advanced. The nests were very bulky, made of reeds placed on the marsh, and floating in about two and a half feet of water. Eggs in each case, three. (*Spreadborough.*)

Breeds abundantly in the marshes at the south end of Lake Manitoba. (*Raine.*)

MUSEUM SPECIMENS.

Five specimens taken at Indian Head, Assa., in June, 1892, and at Crane Lake in June, 1894, by Spreadborough.

Twenty-two eggs of this species taken in a marshy lake near Crane Lake, Assa., on June 14th, 1894, by Spreadborough.

60. Bonaparte's Gull.

Larus philadelphia (ORD) GRAY. 1863.

Frequent on the Atlantic coast as far north as Newfoundland. Apparently quite common in the Gulf of St. Lawrence and not rare in Hudson Bay. A spring and fall migrant in Ontario.

This species is found from Manitoba to the Pacific and a few doubtless breed in the prairie region, but its range is generally north of that of *Larus franklinii*. No doubt the two are often confounded. Its breeding range is in the wooded country extending from Hudson Bay westward to the marshes of the Yukon where Dall found it breeding. It is rare on the coast of Alaska but common along the British Columbian coast and very common on all the lakes of the interior of that province.

BREEDING NOTES.—Thirty-seven nests were taken between June 10th and July 10th, in the wooded country, in the vicinity of Fort Anderson and on the Lower Anderson River. The nests were all built on trees, from four to twenty feet from the ground, and with one exception were made of small sticks and twigs lined with hay and mosses. (*Macfarlane.*)

Dippie reports this species breeding at Buffalo Lake, Alberta, July, 1895.

On June 11th, 1891, I found a few pairs of this little gull breeding in company with Herring Gulls, Avocets and Common Terns on an island in a small lake north of Rush Lake, Assiniboia. (See "Birdnesting in North West Canada," page 57.) One specimen of the bird was procured to prove identity. This bird usually makes its nests in bushes and willows near the water, but in localities where there are no bushes it makes its nest on the ground like the other gulls. The eggs are similar to those of Franklin's Gull, but are smaller in size. (*Raine.*)

I noticed one of these birds flying overhead among a number of common Terns on the 11th June, 1893. I was visiting some rocks on the St. Lawrence below Rockport, Ont., at the time, and from the way in which it hovered along with the Terns thought

it possible it might be breeding there, though I failed to find any sign of a nest. This is the only time I have observed the bird so late in the season. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

One specimen shot at False Bay, Lasqueti Island, Gulf of Georgia, B.C., by Dr. G. M. Dawson, 1885; two taken at Toronto and Ottawa, and three at Indian Head, Assa.

Of eggs of this species we have only one, taken at Black Lake, Assa., June 10th, 1891, by Mr. Raine.

60.1. **Little Gull.**

Larus minutus PALL. 1771.

A specimen obtained on Sir John Franklin's first expedition, was determined by Mr. Sabine to be a young bird of the first year of this species, exactly according with Mr. Temminck's description. (*Richardson.*)

XXIII. **RHODOSTETHIA** MACGILLIVRAY. 1842.61. **Ross's Gull, Cuneate-tailed Gull.**

Rhodostethia rosea (MACGIL.) BONAP. 1850.

This is both a rare and a far northern species. Four specimens have been received by the Museum at Copenhagen, from Greenland, three of which were shot in Disco Bay, and the fourth near the Sukkertop. (*Arct. Man.*) Two specimens of this gull were killed on the coast of Melville Peninsula, on Sir Edward Parry's second voyage. Commander Forster also found this species in Waygate Strait, which is probably one of its breeding places. (*Richardson.*) Found breeding at Ekomiut, in the district of Christianshaab, Greenland, August 15th, 1885. (*The Auk, April, 1885.*) A young bird of this species was taken near St. Michael, Norton Sound, on October 15th, 1879. (*Nelson.*) Abundant at Point Barrow, autumn visitors only. They appeared in large, loose flocks, coming in from the sea from the southwest and evidently going northeast. None seen to return in the spring. They likely breed north of Wrangel Island. (*Murdoch.*)

XXIV. **XEMA** LEACH. 181962. **Sabine's Gull. Fork-tailed Gull.**

Xema sabinii (SAB.) LEACH. 1819.

Said not to breed further south in Greenland than Lat. $75^{\circ} 30'$ N. ; also common at Sabine Island, Melville Bay, Lat. $75^{\circ} 30'$ N. (*Arct. Man.*) Occasional as far south along the Labrador coast as Cow Head, Newfoundland. (*Reeks.*)

Quite a large number of nests were found on the shores of Franklin Bay, and a few eggs were also received from the Eskimo of Liverpool Bay on the Arctic coast. (*Macfarlane.*) Breeding on low islands off the west coast of Greenland and westward to Melville Peninsula. (*Richardson.*) Found breeding abundantly in the low grounds between St. Michael and Bristol Bay, Alaska. (*Turner.*) This gull is especially numerous along the Alaskan coast from the Kuskoquim mouth to Kotzebue Sound, and occurs in small numbers at St. Lawrence Island. (*Nelson.*)

BREEDING NOTES.—On June 13th, 1880, about twenty miles from St. Michael while egging in company with some Eskimo, we found a pond some 200 yards across, in the middle of which were two small islands. A gun-shot caused at least one hundred of these gulls to rise like a white cloud over the islet and showed us that we had found a breeding place. On going to the largest island my Eskimo called out that the ground was covered with gull's eggs. The Eskimo found the water waist deep and under it a solid bed of ice of unknown depth. He carried me over on his back, as I desired to see the nests of these birds, never having seen them. The island was very low, and the driest spots were but a little above the water. Built on the driest places were twenty-seven nests, containing from one to three eggs each, and as many others ready for occupancy. Four or five nests were frequently placed within two or three feet of each other. In about one half the cases the eggs were laid upon the few grass-blades the spot afforded, with no alterations save a slight depression made by the bird's body. In the majority of the other nests a few grass-blades and stems had been arranged circularly about the eggs, and in the remainder only enough material had been added to afford the merest apology for a nest. (*Nelson.*)

XXV. **GELOCHELIDON** BREHM. 1830.63. **Gull-billed Tern. Marsh Tern.***Gelochelidon nilotica* (HASSELO.) STEJN. 1884.

Accidental on southern coast of New Brunswick. One shot at Grand Manan, New Brunswick, August 1879. (*Boardman.*)

XXVI. **STERNA** LINNÆUS. 1758.64. **Caspian Tern.***Sterna tschegrava* LEPECH. 1770.

A tolerably common summer migrant and breeds on many of the islands off the coast of Newfoundland. (*Reeks.*) Very rare in Nova Scotia. One specimen shot at Cole Harbour. (*Downs.*) One specimen procured at Moose Factory, Hudson Bay. (*Packard.*) Not uncommon in the spring and autumn around Hamilton Bay, Ont. (*McIlwraith.*) Rare on Great Slave Lake. (*Ross.*) This species occurs as an occasional visitant to the coast of Behring Sea, from the Yukon mouth to St. Michael at least, and is undoubtedly found still more frequently south to the known haunts of the species along the Pacific coast of Asia. (*Nelson.*)

BREEDING NOTES.—This bird is occasionally shot in Toronto marsh. It breeds abundantly on small islands in Lake Michigan. On June 10th, 1894, Mr. Van Winkle collected a number of clutches for me on Gravel Gull Islands, Lake Michigan. Nests singly in hollows in the sand, containing mostly three eggs each.

Mr. McIlwraith in "Birds of Ontario," says this species nests singly, but he is mistaken, as it breeds in large colonies like other Terns. (*Raine.*)

MUSEUM SPECIMENS.

One specimen, bought with the Holman collection. We have two eggs purchased from Mr. Raine, said to have been taken on Sewell Island, west of Manitoulin Island, Georgian Bay, Lake Huron, July 2nd, 1891.

65. **Royal Tern.***Sterna maxima* BODD. 1783.

Northward to Massachusetts and the Great Lakes. (*A.O.U.List.*)

MUSEUM SPECIMEN.

One purchased with the Holman collection, said to have been taken on Lake Erie ; also one egg from the Bahamas.

67. **Cabot's Tern.**

Sterna sandvicensis acuflavida (CABOT) RIDGW. 1884.

Accidental along the Great Lakes.

In the spring of 1882 Dr. Garnier noticed three individuals of this species coursing around a mill-pond not far from his residence at Lucknow, Ont. He shot one and the writer saw it after it was mounted. (*McIlwraith.*)

69. **Forster's Tern.**

Sterna forsteri NUTT. 1834.

Only a casual visitor on Lake Ontario in spring and fall. (*McIlwraith.*) Common ; breeds abundantly on St. Clair Flats. (*Saunders & Morden.*) Summer resident about the large lakes of Manitoba ; nesting among the reeds. (*Thompson.*) In the summer of 1881 the writer found them abundant on lakes Manitoba, Water-hen and Winnipegosis where they were breeding in numbers in the bordering marshes. West of Manitoba their place is chiefly taken by the Common Tern, as only one pair was seen by Spreadborough at Indian Head in a residence of three months in 1892. None have been noted further west. Richardson says they extend northerly to lat. 57°.

BREEDING NOTES.—On June 18th, 1894, I found an immense colony of these birds breeding on an island in Shoal Lake, Manitoba. The nest was made in a hollow in the sand, and contained three eggs, resting on a few straws. (*Dippie.*) It is not common at St. Clair Flats, Ont., but nests have been taken there by Mr. J. A. Morden, but only a few nests of this species to many of the next. (*W. Saunders.*)

MUSEUM SPECIMENS.

Two eggs taken by Mr. Dippie at Lake Manitoba, June 22nd, 1893.

70. **Common Tern.**

Sterna hirundo LINN. 1758.

This is truly the "Common Tern," as it breeds abundantly from the coasts of Labrador southward to the Grand Manan, N.B., on all islands and coasts of Labrador, Newfoundland, Nova Scotia and New Brunswick. It is also common in the Gulf of St. Lawrence, breeding on the Magdalens, Anticosti and Prince Edward Island. Ascending the St. Lawrence, it nests on the Thousand Islands, where its nest was found by Rev. C. J. Young, in June, 1895. Stragglers are found throughout Ontario, and Saunders and Morden report that this species breeds at St. Clair Flats.

A summer resident in Manitoba and breeding. It is common on all the large lakes of Assiniboia and breeds in suitable places. A few breed near Indian Head, but the greatest numbers were found at Crane Lake, about 100 miles east of Medicine Hat; it was also seen in 1895 at Cypress Lake and southwestward to Waterton Lake near Chief Mountain, and north to Lac Ste. Anne, Alberta.

One specimen taken at Cowichan Gap, September 15th, 1896, by R. D. McClure, Sidney, Vancouver Island. (*Fannin.*)

BREEDING NOTES.—Breeding extensively on the shores of the Arctic Sea as well as on islets in many of the inland lakes of the forest region and "Barrens." (*Macfarlane.*) Breeding in large numbers on a small island in Crane Lake, Assiniboia, June 9th-20th, 1894. Nest, a shallow hole in the ground lined with dry grass. Of the hundreds of nests that I saw each contained three eggs, except two, and they had four. A number of the young were hatched by June 20th. A few were found breeding by Deep Lake, Indian Head, Assa., June 3rd, 1892. Common from Moose Factory to Richmond Gulf, Hudson Bay; breeding in June, 1896. (*Spreadborough.*)

On June 18th, 1894, on an island in Shoal Lake Manitoba, I found thousands of this Tern breeding; their nests were hollows in the sand, lined with bits of drift-weed and contained three eggs each. I found it breeding under like conditions on many of the lakes of Assiniboia in June 1891 and 1893. (*Raine.*)

This species was formerly very plentiful in the River St. Lawrence from Kingston eastward. Numbers bred on Salmon

Island, a bank of shingle, etc., near the foot of Amherst Island, Bay of Quinte. I found one egg in June 1895, a solitary pair of birds being all that were left of the many that formerly bred there. I have not heard of any being met with since that date. Another locality a little below Kingston was the "Spectacles," three small islands in mid-channel. Many pairs also bred at the foot of Wolfe Island, but all these localities have been deserted for some years. Further down the river, below Rockport, a few pairs still breed. They frequent some rocky islets near Chimney Island. In 1893 there were about 30 pairs of birds, but since that date they have gradually diminished until in 1896 there were not more than 12 pairs, and in a few more years this locality also will be deserted by these birds.

Two or three eggs complete a set. I have seen numbers of Terns' nests and never saw more than three eggs in the same nest. When the eggs are laid on rocks, a few stalks of grass or bits of bark are collected and formed into a nest. Sometimes there is no attempt at nest-building at all, but the eggs are laid on the bare rock or ground, usually between the first and third weeks of June. On the Magdalen Islands great numbers of these birds breed on the sand-bars; in June 1897 I found them abundant on Grosse Isle, where on the 22nd June I saw about 60 eggs, most of them recently laid. The nests were made in the short grass and on the beaches near the sea. (*Rev. C. J. Young.*)

Besides breeding in numbers in the St. Clair marshes, this species breeds on islands in Lake Ontario. The nest is on gravelly or rocky ground, and built of slight material. Eggs, from two to four. (*W. Saunders.*)

During July and August of the present year (1899) the writer spent five weeks on Sable Island, which is situated nearly one hundred miles southeast of Nova Scotia. The breeding season was nearly over, but Common, Arctic and Roseate Terns were still incubating, though thousands of young birds were flying around, and still younger ones were hidden in depressions in the sand or behind any convenient cover, while the clamour of the parents overhead was deafening. The chief breeding-ground was on the south side of the island, and this was a wide sand-flat extending for ten miles or more in an east-and-west direction. Over this flat were scattered patches of *Arenaria peploides* and a few hummocks of sand-grass (*Ammophila*
4½

arundinacea), and occasionally remains of old wrecks. In these localities the nests were placed very thickly, and young birds were in multitudes. Most of the nests were just depressions in the sand, but others were lined with anything that came handy, as broken shells, grass, seaweed, egg-cases of squid, and other materials.

All the species bred together ; but the Common Tern was by far the most abundant, while the Arctic came next, and the Roseate in much smaller numbers. Owing to the presence of foxes on the island, the birds are much disturbed on their breeding-grounds, and this year many nests were placed on the sand-hills near the stations, where foxes dare not come. On the sand-hills where grass was plentiful the nests were still mere depressions in the sand, and hardly any had even a slight lining of grass.

MUSEUM SPECIMENS.

We have specimens taken at Indian Head and Crane Lake, Assa. Of eggs we have 27 specimens. Four of these are from an island in Lake Winnipeg, taken by Mr. J. B. Tyrrell ; and twenty-three taken June 20th, 1894, on an island in Crane Lake, Assa., by Mr. W. Spreadborough.

71. Arctic Tern.

Sterna paradisæa BRÜNN. 1764.

This Tern, although an arctic bird, seems to be little known in Greenland but breeds in Ungava Bay and southward to Nova Scotia. (*Downs.*) Brewster reports it breeding abundantly on the Magdalens, and in June 1897 the Rev. C. J. Young found it there, and it has been found breeding in other parts of the Gulf of St. Lawrence. Chamberlain says it is rare in New Brunswick and only as a straggler. McIlwraith says it is of rare occurrence in Ontario, and all our researches in the western territories never revealed this bird east of the Columbia River. Numbers were seen on Upper Arrow Lake, Columbia River, B.C., June 5th, 1890, but they went north a few days later.

Breeds as extensively as the Common Tern and extends as far north. (*Macfarlane.*) This species breeds very abundantly on the shores of Melville Peninsula and on the islands and beaches of the Arctic Sea. (*Richardson.*) On the sandy islands east of

Point Barrow. (*Murdoch.*) They breed in great numbers throughout all northern Alaska, both on the coast and in the interior, and on the islands in Behring Sea and on the Aleutian Islands. (*Nelson.*) Fannin has seen it off the Pacific coast of British Columbia, and reports it from Dease Lake in Cassiar and south to Okanagan.

BREEDING NOTES.—On July 15th, 1895, Mr. Dicks collected some clutches of this Tern for me on Green Island, Sandwich Bay, Labrador. Nests in a hollow in the rocks, containing two or three eggs each. This bird also breeds on the islands of Mackenzie Bay, Arctic Ocean, where eggs were collected for me on June 20th, 1894. Nests, holes in the sand. (*Raine.*)

The Arctic Tern is one of the earliest birds to arrive at St. Michael, Alaska. They become very abundant by the middle of May. They breed on the low grounds, preferably on a low, damp island, such as those at the northern end of the "canal." On this place hundreds of nests were discovered in 1876. The nest is merely a bare spot on the ground; sometimes on y a few blades of grass surround the margin of the nest; but these seem to be more the result of cleaning off a bare spot than an attempt to construct a nest. The eggs vary from one to two, never more. (*Turner.*)

On June 12th I found a nest upon a small wet islet near St. Michael. The island was covered with short grass. The nest was lined with a few dry grass-stems and contained two eggs, and the female bore another ready to deposit. Another nest similarly situated was lined with material procured within a few feet, and the ground was turned up in small spots all about where the birds had uprooted the grass, many small bunches being half uprooted and left, the task proving too heavy. (*Nelson.*)

MUSEUM SPECIMENS.

We have two specimens taken on Sable Island, N.S., August 16th, 1899.

Our egg collection contains one set of eggs from the coast of Labrador procured from Mr. Raine; one from Cape Prince of Wales and another egg from Repulse Bay, Hudson Strait, taken by Mr. Guy in 1896. In July 1894, Dr. Klotz, Astronomer of the Department of the Interior, took a nest containing two eggs on the border of the Baird Glacier, Thomas Bay, Alaska. There was no pretense of a nest, only a hollow in the ground.

72. **The Roseate Tern.***Sterna dougalli* MONTAG. 1813.

Rare on the coast of Nova Scotia. (*Downs.*) Recorded on the authority of Col. Thomas Egan, who assures me a specimen was lately obtained and is now in the possession of Mr. John Rowe, of Halifax, N.S. (*Jones.*) Not uncommon, and breeding on Sable Island, N.S., August, 1899.

MUSEUM SPECIMENS.

Two skins taken on Sable Island, N.S., August 12th, 1899, by the writer.

73. **Aleutian Tern.***Sterna aleutica* BAIRD. 1869.

The Aleutian Tern arrives at St. Michael, Norton Sound, by June 1st and remains until the latter part of August. It is very abundant in the vicinity, breeding plentifully on a small island just at the northern end of the "canal." (*Turner.*) These birds extend their range to the head of Norton Bay and reach the Siberian coast at Behring Strait. They undoubtedly winter in the vicinity of Kadiak Island and the coast of the Northern Pacific adjacent thereto. (*Nelson.*)

BREEDING NOTES.—The Arctic Tern is so intimately associated with the Aleutian Tern, both in nesting habits and procuring food, that the remarks for the one will apply to the other. Their nests are sometimes placed within two feet of each other, and apparently without causing animosity between the species. (*Turner.*) This species is strictly limited to the sea-coast, and breeds upon small dry islands along the coast. The birds reach St. Michael from May 20th to 30th and are found scattered along the coast in company with the Arctic Tern for a short time, but early in June they gather about the islands where they nest. One of these islands is about a mile from St. Michael, in the mouth of a tide-channel known as the "canal." This island is about half a mile across, rises about thirty feet from the beach in a sharp incline, and has a rather level top covered with a thick mat of grass, moss and other vegetation. The upland is dry, and here the birds breed, laying their eggs directly upon the moss, with

no attempt at lining, which would be entirely unnecessary there. About twenty pairs were found on this island and about forty pairs on another island about 18 miles to the eastward. (*Nelson.*)

74. Least Tern.

Sterna antillarum (LESS.) COUES. 1862.

Accidental on our Atlantic Coast and Great Lakes.

Apparently very rare around Newfoundland. (*Reeks.*) Very rare in Nova Scotia. One shot at Polly Bog. (*Downs.*) Audubon reported it abundant and breeding on the Coast of Labrador. (*Packard.*) Occasionally taken on Lake Erie and the southwestern corner of Lake Ontario. (*McIlwraith.*)

MUSEUM SPECIMENS.

One specimen bought with Holman collection, locality unknown. Three eggs procured from Mr. Raine.

XXVII. HYDROCHELIDON BOIE. 1822.

77. Black Tern.

Hydrochelidon nigra surinamensis (GMEL.) STEJN. 1882.

Accidental in New Brunswick ; three shot at Grand Manan August, 1879. (*Boardman.*) A few taken at Quebec. (*Dionne.*) It is a common spring and autumn migrant in Ontario, but more common west of Toronto. Saunders and Morden report it breeding abundantly in St. Clair Flats and marshes. Its chief breeding-grounds, however, are the marshy districts of Manitoba and eastern Assiniboia, where every marsh has many or few nests, and westerly along the boundary to Waterton Lake and Lake Okanagan. B.C. It extends northwesterly in diminishing numbers, and breeds in marshes. One nest was taken and reported by Dall at Fort Yukon, in Alaska. We have never noticed it in the mountains, but Fannin observed it on Burrard Inlet, Gulf of Georgia, in January, 1882, and also in the interior of mainland.

BREEDING NOTES.—Abundant at Raeburn, Manitoba and at Buffalo Lake, Alberta. Specimens and eggs taken at both localities. (*Dippie.*) Nests very small, floating upon the water among the grass in sloughs and marshes. Begins to breed about the middle of June in Assiniboia ; usual number of eggs, three. On

June 15th, 1894, saw a number of their nests in a marshy lake near Crane Lake, Assa. The nest was a few pieces of rushes with a little grass mixed in to keep it from floating apart and letting the eggs fall through. Some of the nests were so small and so much sunken that the eggs were about one quarter in the water. (*Spreadborough.*)

I found it breeding at Long Lake and Shoal Lake in Manitoba. It also breeds plentifully at Swan Lake in northern Alberta. It is a late breeder, seldom having eggs before the middle of June. The nests are usually built on dead, floating rushes in shallow water and contain three eggs each. (*Raine.*)

This Tern is a summer resident in the St. Lawrence valley. In the County of Leeds, Ont., I first noticed it near Gananoque Lake in 1893, about six miles north of the St. Lawrence, where on the 7th July, I found a nest among the flags, containing three eggs on the point of hatching. Each year since I have found two or three nests in the same locality. The birds choose very wet, miry places to lay in. Two nests were found on old musk-rat houses, another on a log of wood in a pool far out in the marsh, others in equally swampy places. Three completes the set of eggs, which are usually laid between the 7th and 14th June. In the spring of 1894 these birds were very plentiful; since that time not so much so. I noticed a number of them in the Bay of Quinte in July, 1896, and Dr. C. K. Clarke, of Kingston, tells me that a number of pairs nested in Cataraqui marsh in 1897. (*Rev. C. J. Young.*)

This species breeds in all the large marshes that I have visited in Western Ontario, and nests on the dilapidated musk-rat houses and other débris, laying from two to four eggs. (*W. Saunders.*)

MUSEUM SPECIMENS.

In our museum are three skins of this species. One of these was shot on the Ottawa in 1885, and another at Toronto the same year. The other specimen was taken at Indian Head, Assa., June 1892.

There are seven eggs in the collection. Three were taken by Mr. J. B. Tyrrell on Lake St. Martin, Man., and the others were taken in a marshy lake near Crane Lake, Assa., on June 15th, 1894, by Spreadborough.

78. **White-winged Black Tern.**

Hydrochelidon leucoptera (MEISSN. & SCHINZ.) BOIE. 1822.

Six specimens of this species, or rather what I believed to be this species, were seen for hours one morning about the last of August, 1881, flying over a lake on the western flank of Porcupine Mountains in northwestern Manitoba. One of the birds was shot, but owing to our difficulties at the time (we were hauling our boats over a height of land) it spoiled before it was skinned.

On June 9th, 1896, I again had the good fortune to see a pair of these birds, which were evidently mated, but after watching them for an hour I could find no nest. They were circling around a small marshy pool across the road opposite to the entrance to the Experimental Farm at Brandon, Manitoba. I had no gun, and when I returned six weeks afterwards I saw no signs of terns around the pool.

I take the following from my note-book, written at the time. "To-day was again surprised by seeing a pair of Black Terns with the bends of both wings evidently quite white. I watched them for a long time and found them to be identical with those I saw by the pool at Stony Mountain on the 4th inst. When the bird rested and its wings closed it seemed to have a white collar around the *black head*. There was a marked contrast between the plumbeous back, the white collar and the black head." On June 4th I saw a number of specimens circling over a pool by the roadside not far from the hotel at Stony Mountain, 14 miles from Winnipeg, Manitoba. The white was on the *bend of both wings* in all the birds seen. (*Macoun*.)

FAMILY VI. **RYNCHOPIDÆ.** SKIMMERS.XXVIII. **RYNCHOPS** LINNÆUS. 1758.80. **Black Skimmer.**

Rynchops nigra LINN. 1758.

Accidental on the South Atlantic coast. A large flock seen in the Bay of Fundy, 1879. (*Boardman*.)

ORDER TUBINARES. TUBE-NOSED SWIMMERS.

FAMILY VII. **DIOMEDEIDÆ.** ALBATROSSES.XXIX. **DIOMEDEA** LINNÆUS. 1758.81. **Black-footed Albatross.**

Diomedea nigripes AUDUBON. 1839.

Off the coast of British Columbia to Lat. 51° N. (*Nelson.*) Common as far north as Lat. 52° N. in the open sea. A few reported 300 miles south of Unalaska. (*Dr. Bean.*) West coast of Vancouver Island. (*Fannin.*)

BREEDING NOTES.—I have no doubt but that this bird breeds in some locality among the Aleutian Islands, for it is found there from the early part of May to late October. (*Turner.*)

MUSEUM SPECIMEN.

One taken about 100 miles northwest of the north end of Vancouver Island, B.C., July 1891, by Dr. G. M. Dawson.

82. **Short-tailed Albatross.**

Diomedea albatrus PALL. 1769.

From Lat. 50° N. in the North Pacific, this fine bird becomes more or less numerous and thence north replaces the preceding species; it is found throughout the Aleutian Islands and is numerous in Behring Sea and extends north to Behring Strait. (*Nelson.*) From Lat. 52° N., this species increases in numbers as we go north, but the mouth of Cook's Inlet and the Barren Islands seem to be its favorite resort. (*Dr. Bean.*) Tolerably common on both coasts of Vancouver Island, but more abundant on the west coast; have been taken in Victoria Harbour. (*Fannin.*)

Mr. W. Spreadborough found one dead on the beach at Esquimault, Vancouver Island, June 4th, 1893.

BREEDING NOTES.—Turner believed that this species breeds in the neighbourhood of Cape Newenham, near Bristol Bay, Alaska, as he saw numbers of them there in June, flying and sitting on rocks.

XXX. **THALASSOGERON** RIDGWAY. 1884.83. **Yellow-nosed Albatross.***Thalassogeron culminatus* (GOULD) RIDGW. 1884.

Accidental on the Gulf of St. Lawrence. One example taken at the River Moisie, Quebec, August 20th, 1885. This bird is now in the museum of Laval University in Quebec city. (*Dionne.*)

FAMILY VIII. **PROCELLARIIDÆ.** FULMARS & SHEARWATERS.XXXI. **FULMARS** STEPHENS. 1826.86. **Fulmar.***Fulmarus glacialis* (LINN.) STEPH. 1826.

Said to breed no further to the south in Greenland than lat. 69° N., occurs also in East Greenland. (*Arct. Man.*) Apparently common in its migrations along the coast of Newfoundland. (*Reeks.*) Rare on the coast of Nova Scotia. (*Downs.*) On the fishing-grounds off Grand Manan, N.B., in autumn. (*Herrick.*)

MUSEUM SPECIMENS.

Two taken on Resolution Island, Hudson Strait.

86a. **Lesser Fulmar.***Fulmarus glacialis minor* (KJÆR.) BONAP. 1856.

One shot at Beauport, Quebec, in 1890. (*Dionne.*)

86b. **Pacific Fulmar.***Fulmarus glacialis glupischa* STEJN. 1884.

A very common species in the North Pacific. This is the common Fulmar of the North Pacific, and numbers of specimens have been obtained at Unalaska. (*Nelson.*) Hundreds of thousands of these birds were seen off Unimak Pass and the eastern end of Unalaska Island, in fact, they covered acres of water; they are also numerous around many of the Aleutian Islands. (*Turner.*) One specimen taken at Chemainus, Vancouver Island, November, 1895. (*Fannin.*)

BREEDING NOTES.—This species breeds on the Commander Islands, on the west side of Behring Sea. It nests in the greatest

abundance on the high cliffs and promontories rising from the sea. The eggs are dull white. (*Nelson.*)

86c. **Rodger's Fulmar.**

Fulmarus glacialis rogersii (CASS.) COUES. 1872.

All of the Behring Sea islands situated off shore and north of the Aleutian Islands are frequented by this form during the breeding season; it was common to the north of the Aleutian Islands and about the Prybiloff Islands in the summer of 1877; in the summer of 1881 it was very numerous in Behring Strait, and it was also found at St. Lawrence Island. (*Nelson.*)

BREEDING NOTES.—This species repairs to the cliffs, especially on the south and east shores of St. George Island in Behring Sea. It comes early in the season and selects some rocky shelf, secure from all enemies, save man, where, making no nest whatever, but squatting on the bare rock itself, it lays a single large, white oblong oval egg and immediately commences the duty and the labour of incubation. It is of all the water-fowl the most devoted to its charge, for it will not be scared from the egg by any demonstrations that may be made in the way of throwing rocks or yelling, and it will even die as it sits rather than take to flight, as I have frequently witnessed. The fulmar lays from the 1st to the 5th of June. The egg is very palatable, fully equal to that of our domestic duck, indeed it is somewhat like it. (*Elliott.*)

XXXII. **PUFFINUS** BRISSON. 1760.

89. **Greater Shearwater.**

Puffinus gravis (O'RIELLY) SALVIN. 1896.

Marked by Holbøell and Reinhardt as breeding in the southern part of Greenland. (*Arct. Man.*) Abundant from Belle Isle to Resolution Island. (*Kumelin.*) Rather common on the west coast of Newfoundland. (*Reeks.*) Met with off the shores of Nova Scotia; not seen in the Gulf. (*Brewster.*) A winter visitor off New Brunswick. (*Dr. Adams.*) Specimen taken on the coast of Labrador, 1872. (*Dionne.*)

90. **Manx Shearwater.**

Puffinus puffinus (BRÜNN.) LICHT. 1854.

One skin received from Greenland. (*Arct. Man.*) Common from Belle Isle to Grinnell Bay. (*Kumelin.*) Tolerably common on

the west coast of Newfoundland. (*Reeks.*) Off the coast of New Brunswick. (*Dr. Adams.*) Bird of passage. (*Winge.*)

92.1. **Allied Shearwater.**

Puffinus assimilis GOULD. 1837.

Accidental on Sable Island off the coast of Nova Scotia. (*A. O. U. List. Ninth Supplement.*)

93. **Black-vented Shearwater.**

Puffinus opisthomdas COUES. 1864.

Several specimens have been taken off the Outer Wharf, Victoria, Vancouver Island. (*Fannin.*)

94. **Sooty Shearwater.**

Puffinus fuliginosus STRICKLAND. 1832.

Common on the banks of Newfoundland, but rather rare in the Strait of Belle Isle. (*Reeks.*) Rare on the coast of Nova Scotia. (*Downs.*) Occurs in winter on Grand Manan, New Brunswick. (*Herrick.*) Coues states he saw a few individuals of this species, on the coast of Labrador, August 19th, 1860. (*Packard.*)

95. **Dark-bodied Shearwater.**

Puffinus griseus (GMEL.) FINSCH. 1874.

During the fall of 1895, Dr. C. F. Newcombe, found this species in great numbers off the west coast of Queen Charlotte Islands. (*Fannin.*)

96. **Slender-billed Shearwater.**

Puffinus tenuirostris (TEMM.) TEMM. & SCHLEG. 1849.

One specimen was secured by Dall which was killed in Kotzebue Sound; single specimens have been taken at Unalaska, Sitka and Kadiak islands. (*Nelson.*) A dead bird believed to be this species was picked up on Amchitka Island, and this species is said by the natives of Attu to breed on the Semichi Islands. (*Turner.*) One specimen taken off Albert Head, near Victoria, Vancouver Island, Oct. 24th, 1891. (*Fannin.*) Shot off the coast of Queen Charlotte Islands by Dr. Newcombe in August 1894

XXXIII. **ÆSTRELATA** BONAPARTE. 1856.98. **Black-capped Petrel.**

Æstrelata hasitata (KUHI) COUES. 1866.

On the 30th October, 1893, the dead body of a Black-capped Petrel was picked up on the shore of the island at Toronto, Ont. (*McIlwraith*.) Only known record, for our limits.

100. **Fisher's Petrel.**

Æstrelata fisheri RIDGW. 1883.

Described from a specimen taken on Kadiak Island by Mr. Fisher, June 11th, 1882. (*Nelson*.) Mr. Nelson saw a petrel—which was possibly this bird—while passing the Aleutian Islands.

XXXIV. **BULWERIA** BONAPARTE. 1842.101. **Bulwer's Petrel.**

Bulweria bulweri (JARD. & SELBY) BOUCARD. 1876.

Only one specimen known from Greenland, which was received from the Moravian missionaries. (*Arct. Man*.)

XXXV. **PROCELLARIA** LINNÆUS. 1758.104. **Stormy Petrel. Mother Carey's Chicken.**

Procellaria pelagica LINN. 1758.

Two specimens taken in the Greenland seas. (*Arct. Man*.) A common summer migrant, breeding on the islands around the coast of Newfoundland, (*Reeks*.) Common all the year. Breeds on St. Paul Island, Gulf of St. Lawrence, and other favourable localities; nest in a bank. (*Downs*.) One specimen found at St. John, N.B. (*Chamberlain*.) Specimens were taken in Ungava Bay, 1882. (*Packard*.)

XXXVI. **OCEANODROMA** REICHENBACH. 1852.105. **Forked-tailed Petrel.**

Oceanodroma furcata (GMEL.) REICH. 1852.

The Aleutian Islands form the main home of this elegant bird. It is seen in the North Pacific for one or two hundred miles south

of the islands ; it is sometimes found on the Lower Yukon and has been seen in Behring Strait and about St. Lawrence Island ; two specimens have been taken in Kotzebue Sound, so its range reaches the arctic circle. (*Nelson.*) A winter resident along both coasts of Vancouver Island, but more abundant on the west coast ; has been taken in Victoria harbour. (*Fannin.*)

MUSEUM SPECIMEN.

One, taken in Gardiner Channel, Gulf of Georgia, in 1885, by Dr. G. M. Dawson.

106. **Leach's Petrel.**

Oceanodroma leucorhoa (VIEILL.) STEJN. 1885.

Constantly observed near the coast of Greenland to Lat. 64° or 65° N. ; most common about the entrance to Gotthaab Fjord. (*Arct. Man.*) Found southward along the whole Atlantic coast, and in all parts of the Gulf of St. Lawrence. Reeks says they probably breed around the coast of Newfoundland ; and Bishop reports that they breed in small numbers on Great Bird Rock, Bryon Island, and possibly others of the Magdalen Islands.

On the Pacific coast from California to some distance north of the Aleutian Islands. (*Nelson.*) According to Dall they breed in considerable numbers on the southern Aleutian Islands. Fannin took one specimen off Beacon Hill, Victoria, Vancouver Island. November, 1893,

BREEDING NOTES.—Breeds on the Magdalen Islands in the Gulf of St. Lawrence and on many of the islands off the Labrador coast. It also breeds on the Alaskan coast. I have a series of eggs taken on Sannak Island, Alaska, June 30th, 1894. (*Raine.*) I never saw this bird until the summer of 1897, when I found a few pairs breeding on Bryon Island, the northernmost of the Magdalen Islands. Here I found three nests ; no doubt there were many more, but as the bird is nocturnal in many of its habits the nest is not easy to find. On the 24th June, a beautiful day, hearing that this bird was to be met with on the island, I walked toward the east point, and after looking about for some time at length found a burrow under a stunted spruce bush about fifty feet from the edge of the cliff. I detected the birds by the musky odour in the neighbourhood of the bush. This burrow extended horizontally about two feet under the tree. After

digging down I came to the nest—a mass of withered grass and bits of bark and wood—in which was one egg, incubation just commencing. The bird was on the nest, and when handled ejected an oily fluid, very rank smelling. After measuring and identifying the bird I let it go. The other two nests I found were of the same character and under the same conditions, and some distance from the edge of the cliff. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Our egg collection consists of three specimens. Two of these were procured on the Magdalen Islands, on July 10th, 1897. The third specimen was taken at the end of a burrow in the ground on Green Island, Lunenburg Co., Nova Scotia, June 28th, 1894, by Mr. P. A. Thomas.

XXXVII. **OCEANITES** KEYSERLING & BLASIUS. 1840.109. **Wilson's Petrel.**

Oceanites oceanicus (KUHI) LICHT. 1854.

Traced as far north as Resolution Island on our outward voyage; on the homeward, first seen about one hundred miles south of Cape Farewell. (*Kumelin.*) Common, and said to breed, on several of the islands along the coast of Newfoundland, especially at Port au Port. (*Reeks.*) Observed everywhere between Annisquam and the Gut of Canso and they were common and generally distributed in the Gulf of St. Lawrence. (*Brewster.*)

ORDER STEGANOPODES. TOTIPALMATE SWIMMERS.

FAMILY IX. **PHAËTHONTIDÆ**. TROPIC BIRDS.XXXVIII. **PHAËTHON** LINNÆUS. 1758.112. **Yellow-billed Tropic Bird.**

Phaëthon americanus GRANT. 1897.

Accidental in Nova Scotia. One individual of this species was taken after a storm at Shubenacadie. (*Downs.*)

113. **Red-billed Tropic Bird.**

Phaëthon æthereus LINN. 1758.

One specimen taken on the Newfoundland Banks. (*Chamberlain.*)

FAMILY X. **SULIDÆ.** GANNETS.XXXIX. **SULA** BRISSON. 1760.117. **Gannet. Solan Goose.***Sula bassana* (LINN.) BOIE. 1822.

Accidental and rare in Greenland. (*Arct. Man.*) From Greenland south to New Brunswick and throughout the Gulf of St. Lawrence this species is common, breeding abundantly on the southern coast of Labrador and on the Nova Scotia coast and on Bird Rocks in the Gulf. Accidental in Ontario. McIlwraith mentions the occurrence of two individuals.

BREEDING NOTES.—Breeds at Bird Rocks, Gulf of St. Lawrence. (*Raine.*) I saw numbers of these birds on the rocky ledges of Bonaventure Island off the Gaspé coast in June, 1897. They had apparently just commenced to lay. Great numbers are also to be met with around the Magdalen Islands, their principal breeding resort there, as is well known, being the Great Bird Rocks, where still a considerable number hatch their young every year. I was unsuccessful in reaching their breeding-ground on June 25th, owing to a dense fog, and had much difficulty in finding the land after a hard day's work. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

One specimen taken in the Gulf of St. Lawrence, bought with the Holman collection; also one egg taken on Bird Rocks, Gulf of St. Lawrence, July, 1886. Received from Mr. Raine.

FAMILY XI. **PHALACROCORACIDÆ.** CORMORANTS.XL. **PHALACROCORAX** BRISSON. 1760.119. **Single-crested Cormorant.***Phalacrocorax carbo* (LINN.) LEACH. 1816.

Said by Holbøll to breed from the Godthaab Fjord northward; observed also on the east coast of Greenland. (*Arct. Man.*) Plentiful and breeding along the whole coast of Labrador and Newfoundland. It also breeds on the coast of Nova Scotia, (*Downs*) and on islands in Mace's Bay, New Brunswick. (*Chamberlain.*) Common in the Gulf of St. Lawrence (*Dionne*) and

ascends the St. Lawrence and Ottawa rivers, stragglers being taken at Ottawa, Kingston and, according to McIlwraith, as far west as London, Ont.

120. **Double-crested Cormorant.**

Phalacrocorax dilophus (SWAIN.) NUTT. 1834.

Equally abundant with *P. carbo* and breeds in colonies along Newfoundland. (*Reeks.*) Breeds in numbers along the Atlantic coast and is of frequent occurrence in the Gulf and up the St. Lawrence and throughout Ontario, though we have no account of its breeding in that province.

Abundant and breeding from Lake Winnipeg, in the eastern part of Manitoba, westward to Old Wives Lake and Crane Lake in Assiniboia. It extends northward to Great Slave Lake, but is rare. (*Ross.*)

BREEDING NOTES.—On an island in Crane Lake, Assiniboia, June 9th, 1894, I observed twenty-seven nests. The nests, built with sticks and weeds, were from six inches to a foot in height. Only nine of the nests contained eggs, and these had but one each. A few days later (June 20th) all the nests had from one to four eggs in them, and two additional nests had been built. (*Spreadborough.*) Manitoba and Shoal lakes, Manitoba; and in Buffalo Lake, Alberta. (*Dippie.*)

On June 8th, 1894, I found this bird nesting on islands in Shoal Lake, Manitoba. Nest of sticks and weeds containing from four to five eggs. (*Raine.*)

MUSEUM SPECIMENS.

One specimen shot at Indian Head, Assa., in May 1892 by Mr. W. Spreadborough. The egg collection consists of twelve specimens taken on June 20th, 1894, from an island in Crane Lake by Spreadborough.

120b. **White-crested Cormorant.**

Phalacrocorax dilophus cincinatus (BRANDT) RIDGW. 1880.

This bird is a visitor at St. Michael Alaska, by June 10th. It does not occur in great numbers; only a few breed there. At Besborough Island, some 40 miles north of St. Michael, this bird breeds in abundance on the walls of that inaccessible island.

(Turner.) From Race Rocks to Alaska, including Howe Sound and Burrard Inlet and both coasts of Vancouver Island ; it occasionally enters the mouth of the Fraser River, and is tolerably common. (Fannin.) Common on both coasts of Vancouver Island. (Spreadborough.)

122. **Brandt's Comorant.**

Phalacrocorax penicillatus (BRANDT) HEERM. 1854.

Two specimens of this species were killed off Beacon Hill, Victoria, Vancouver Island, April 19th, 1897, by Mr. D. E. Campbell and presented to the museum. (Fannin.)

123. **Pelagic Cormorant.**

Phalacrocorax pelagicus PALL. 1826.

This comorant was found abundantly on the Aleutian Islands in May, 1877, and in the autumn of 1881. (Nelson.) In some localities of the Aleutian Islands this form is extremely numerous ; it breeds on all the principal islands. Along these islands the bird is a constant resident, apparently more numerous in winter than in summer. (Turner.)

BREEDING NOTES.—The nest is usually placed on a ledge of some bold-faced rock ; in some instances about forty feet above the sea. It is large, built of sea-weed, a few grass stalks, and an abundance of its own excrement. The eggs number three or four, blue of pale shade to white in colour. (Turner.)

123a. **Violet-green Cormorant.**

Phalacrocorax pelagicus robustus RIDGW. 1884.

This is the most abundant cormorant in Alaska. It occurs everywhere on the coast from Norton Sound to Sitka, and breeds on almost every rocky promontory. (Nelson.) This species is very common near the entrance to St. Michael. (Turner.) An abundant resident on the coast of British Columbia, taken as far north as Port Simpson ; it breeds on the islands close to Sidney Island, about fifteen miles from Victoria. (Fannin.)

MUSEUM SPECIMEN.

A fine specimen of this species, taken near Port Simpson, on the Pacific coast of British Columbia.

124. **Red-faced Cormorant.***Phalacrocorax urile* (GMEL.) RIDGW. 1884

This is a resident species on the Prybiloff Islands. It is a more or less common summer resident on St. Matthew and St. Lawrence islands as well as upon all the cliffs on both shores of Behring Strait and the islands in the strait. (*Nelson.*) A single specimen of this bird was obtained at St. Michael. I did not see it elsewhere. (*Turner.*)

BREEDING NOTES.—This species is the earliest of the birds in Behring Sea to lay its eggs. Two eggs from a bed on "the reef," St. Paul Island, June 1st, 1872, nearly hatched, which is nearly three weeks in advance of the other waterfowl, almost without exception. The nest is large, carefully rounded up, and built on some jutting point or narrow shelf along the face of a cliff or bluff; in its construction sea-ferns (*Sertulariæ*), grass, etc., are used, together with a cement made largely of excrement. The eggs are usually three in number, sometimes four, and, compared with the size of the bird, are exceedingly small. They are oval, of a dirty whitish-gray, green and blue colour, but soon become soiled, for although this bird's plumage is sleek and bright, yet it is very slovenly and filthy about its nest. (*Elliott.*)

FAMILY XII. **PELECANIDÆ.** PELICANS.XLI. **PELECANUS** LINNÆUS. 1758.125. **American White Pelican.***Pelecanus erythrorhynchos* GMEL. 1788.

Accidental in New Brunswick; one shot at Point du Chêne and another at Cape Spenser. (*Chamberlain.*) Stragglers are occasionally taken on Lake Ontario and others on Lake Erie, but there are no accounts of its breeding in any part of Ontario.

Found on all the large lakes throughout northern Manitoba and Assiniboia and Saskatchewan. According to Thompson they formerly bred on Shoal Lake in Manitoba, but the settling of the country has caused them to move farther north. The writer has found them on Lake Winnipegosis, Long Lake, Old Wives Lake, the Great Quill Lakes and Crane Lake, where they were breeding

in numbers. Farther north they breed in still greater numbers. First seen at Indian Head, Assa., April 18th, 1892; in May they came in large flocks and went north to breed. As soon as the breeding season is over they come back and feed in the larger lakes in the district; the greater number of those that return are males. They were breeding in numbers at Long Lake, to the northwest of Indian Head, in 1879, and a few on Lake Ste. Anne, Alberta, 1898. (*Spreadborough.*) North to Big Island on the Mackenzie River. (*Ross.*) Not common in British Columbia. One specimen taken at Shuswap Lake, October, 1890, by Col. Forester. Said to breed in the Chilcotin country. (*Fannin.*) Mr. James McEvoy, of the Geological Survey, saw one on Kamloops Lake in October, 1894, and Dr. Dawson saw numbers in lakes in the Chilcotin country in June, 1878. These are the only records we have of its occurrence in British Columbia.

BREEDING NOTES.—Breeding on Lake Manitoba and Shoal Lake, Manitoba, and on Buffalo Lake, Alberta. (*Dippie.*) On June 18th, 1894, I found a colony of these birds nesting on a sandy island in Shoal Lake, Manitoba. Nest, a hollow in the gravel, containing two eggs each. Dr. Shufeldt in his monograph on the Pelican, states the bird lays but one egg, but this is an error as far as my observation goes. (*Raine.*) Richardson says they deposit their eggs on small rocky islands, and this accords with our own knowledge as in the cases mentioned above they were breeding on islands. Their nests are merely depressions in the gravel or sand, generally lined with an algoid matting that is often found blown up on the shore. Eggs, one to three, very much like that of the Canada Goose, but the surface of the shell is rougher.

MUSEUM SPECIMENS.

One specimen taken on Lake Winnipeg, July, 1884, by Mr. Thomas Weston. Four eggs of this species taken on a small island at the western end of Lake Winnipegosis, Manitoba, by Mr. J. B. Tyrrell, in June, 1889.

126. **Brown Pelican.**

Pelecanus fuscus LINN. 1766.

On the 31st May, 1885, a Brown Pelican was seen to alight on a salt-water marsh at River John, Pictou Co., Nova Scotia, where

it was approached without much difficulty and killed. Upon examination the body was found to be emaciated and the pouch entirely empty. This specimen is now in the Museum of Pictou Academy. On the first of June, 1893, an adult male of the same species was shot on Pictou Island by Mr. J. W. Hogg. A third specimen was shot by the same gentleman on May 15th, 1895, at the east end of Pictou Island.

MUSEUM SPECIMEN.

The third specimen mentioned above is now in the museum of the Geological Survey.

127. **California Brown Pelican.**

Pelecanus californicus RIDGW. 1884.

I was informed by a close observer that a Brown Pelican frequented Sumas Lake, Fraser Valley, B.C., for some time. (*Brooks.*) Not common; one taken at the mouth of Fraser River by Mr. J. C. Hughes in November, 1880. Since then one was killed near Race Rocks, and in September of the following year, I shot and wounded one on the flats above Seymour Creek, Burrard Inlet, B.C., but failed to secure it. (*Fannin.*)

FAMILY XIII. **FREGATIDÆ.** MAN-O'-WAR BIRDS.XLII. **FREGATA** BRISSON. 1760.128. **Man O'War Bird.**

Fregata aquila (LINN.) REICH. 1852.

Accidental on the coast of Nova Scotia and in the Gulf of St. Lawrence. One shot at Cole's Harbour, Nova Scotia, after a southerly gale. (*Downs.*) One shot at Godbout on the St. Lawrence by M. Comeau in 1884. (*Dionne.*)

MUSEUM SPECIMEN.

One egg of this species taken in Yucatan, Central America, April 10th, 1890.

ORDER ANSERES. LAMELLIROSTRAL SWIMMERS.

FAMILY XIV. ANATIDÆ. DUCKS, GEESE AND SWANS.

XLIII. MERGANSER BRISSON. 1760.

129. American Merganser. Goosander.

Merganser americanus (CASS.) STEJN. 1885.

This species breeds in New Brunswick (*Chamberlain*), in Newfoundland (*Reeks*), in Labrador (*Low*), Prince Edward Island and Sable Island (*Macoun*), and is a common summer resident in Quebec and Ontario.

Breeds in the northern part of Manitoba and northwesterly to the Barren Grounds. (*Macfarlane*.) Nelson and Turner report it as only a visitor in Alaska, but both Brooks and Fannin report it breeding in British Columbia and wintering abundantly on Okanagan Lake. Found breeding at Canmore and Banff, Rocky Mountains, May, 1891, and at Jasper Lake, Alberta, in 1898.

BREEDING NOTES.—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.

Fairly common in Alberta, downy young killed June 24th, 1896, at the forks of Blindman River and the Red Deer. (*Dippie*.)

This is a summer resident at Norway Lake, Renfrew Co., Ont.; although I never obtained the nest. I have seen the bird, however, fly into a cavity in a pine tree about forty feet from the ground. I have learned that a pair bred every year in the bole of a decayed pine tree on an island in Bolis Lake, Frontenac Co., Ont. I have reason to believe that this species prefers in Ontario inland lakes bordered by woods and not large expanses of open water. (*Rev. C. J. Young*.)

MUSEUM SPECIMENS.

One taken by Mr. S. Herring in Toronto marsh and another in the harbour of Victoria, B. C., by Mr. W. Spreadborough.

Mr. A. P. Low took a nest of this species from under low-spreading spruce trees on the Upper Hamilton River, Labrador, in June, 1894. The eggs are in the Museum.

130. **Red-breasted Merganser.**

Merganser serrator (LINN.) SCHÄFF. 1789.

This species breeds in Greenland and across the whole of the wooded region from Newfoundland to the Aleutian Islands. It does not breed in the prairie region, but prefers the clear lakes and streams of the north. Not very common in British Columbia, but breeds in suitable places; breeding at Deer Park and Pass Creek, Columbia River, B.C., June, 1890. (*Macoun.*) Winters on Okanagan Lake, B.C. (*Brooks.*)

BREEDING NOTES.—Nests on rivers and lakes. Breeding at Buffalo Lake, Alberta, also at Lake Manitoba, 1896. (*Dippie.*) Breeds at Shoal Lake and Lake Manitoba. (*Raine.*) On an island in the Yukon Delta, Dall found six nests of this bird. They were all carefully concealed under dead leaves, and were generally sheltered by a log of driftwood, in a small hollow, lined with down from the parent's breast. They contained from six to ten rich cream-coloured eggs.

On the Alaskan coast they breed everywhere in suitable places from Sitka north to Icy Cape, and perhaps to Point Barrow. The first eggs are laid early in June, and the site for the nest, on the marshes, is ordinarily the same as that chosen by other species of ducks with the usual foresight as to concealment and proximity to a pond. (*Nelson.*)

This species used to breed frequently among the Thousand Islands, River St. Lawrence. Only a few pairs now remain to do so, the majority going east and north. In June, 1893, I saw a flock of upwards of twenty about fourteen miles above Brockville; of course, all adults. In the following year, in the last week in June, I saw a flock of about the same number at the "The Ducks," Lake Ontario. I have met with the nest twice at the east end of Lake Ontario, on islands, on the 27th June, 1896, and on the 30th June the same year. On the first occasion I had landed on a rocky island, and while passing some cedars a Merganser flew from underneath. I concluded there was a nest and by searching soon found it, containing six eggs. This nest was well hidden away among thick branches of cedar, and was found in a depression of the rock, it was made of dried grass and well lined with down of the bird. Incubation had commenced seven or eight days. The other nest was in a somewhat similar posi-

tion, well concealed in a dry place among the rocks, perhaps ten feet above the water; this one contained ten eggs, and was precisely as the first. This species is very common on the Magdalen Islands in summer. I saw numbers of them in June, 1897, and obtained fresh eggs on the 22nd of that month. They select there an island or dry spot around the brackish pools at the north-east point of the island, and the eggs were deposited in precisely the same way as those found on Lake Ontario. (*Rev. C. J. Young.*)

This bird builds a nest of dry grass, warmly lined with down and feathers. The eggs, nine or more in number, are of a creamy buff colour. From a nest situated at the Lake of the Woods, ten young were successfully hatched on the 20th June, 1897, the young birds were as large as a quail. (*G. R. White.*)

Several nests of this, not particularly numerous Merganser, were obtained in the vicinity of Fort Anderson, and also in the wooded parts on both sides of the river, north and south of the post. One was found on the borders of the "Barrens," to the east, under a fallen tree, close to a small lake. It was a scooped-out hole, lined with feathers and down and contained six eggs. Ten was the maximum number taken in a nest. (*Macfarlane.*)

MUSEUM SPECIMENS.

One taken in Toronto marsh by Mr. S. Herring and two others by Mr. W. Spreadborough in the harbour at Victoria, B.C., January 25th, 1890. Mr. A. P. Low took several nests of this species on the borders of small lakes in Labrador in June, 1894. The eggs are in the Museum.

XLIV. **LOPHODYTES** REICHENBACH. 1852.181. **Hooded Merganser.**

Lophodytes cucullatus (LINN.) REICH. 1852.

This species is reported as a spring and autumn migrant along the Atlantic coast from New Brunswick to Labrador as well as in Quebec and Ontario. We have no records of its breeding in any of these provinces, except that an Ottawa writer says it is "known to breed;" and Mr. Elliott, of Plover Mills, Middlesex Co., Ont., reports that a male flew out of the woods on the 28th June, 1889, and alighted on Plover Pond, and from this fact believes it breeds in southwestern Ontario.

Its centre of abundance seems to be northern Manitoba and the districts towards the mouth of the Saskatchewan; here it finds dead trees and flooded ground, which seem to be its chief requisites when breeding. After pairing, the males come south and congregate on the lakes and ponds while the females are hatching. Many broods have been seen, but very few accompanied by more than one parent. It seems to be a common summer resident in the Rocky Mountains, as an old bird with her young brood was seen at Waterton Lake, Lat. 49°, in July, 1895, and in July, 1897, in Crow Nest Pass, thirty miles farther to the north. Breeding at Banff, Rocky Mountains, May, 1891, and at the mouth of the Illecillewaet, B.C., May 20th, 1890; also found breeding in small ponds at Tête Jaune Cache, B.C., by Spreadborough, in July, 1898.

This species is common throughout British Columbia; and Fannin and Brooks say it is common on the Pacific coast and in Fraser River valley and winters on Okanagan Lake. Only occasional in Alaska, where Dr. Bannister reported a flock at St. Michael in October, 1885, and shot one.

BREEDING NOTES.—A pair has built in an elm stub for years, at about thirty feet from the ground, at the mouth of Sharp's Creek, Bracebridge, Ont. The stub is on the bank of the stream. The old bird carries her young from the tree to the water in her bill. At first the young are rather helpless and are very easy to catch, but in a few days they are well able to take care of themselves. A pair of these birds was seen on Moose River, between the Canadian Pacific Railway and James Bay, June 5th, 1896; another pair was seen in the interior of Labrador on July 16th the same year. (*Spreadborough.*) Seen, and believed to be breeding, at Reaburn, Manitoba, June 8th, 1893. (*Dippie.*)

MUSEUM SPECIMENS.

Seven specimens. Taken at Toronto, Ont., by Mr. S. Herring; at Ottawa, by Charles Saunders; and at Indian Head, Assa., Banff, Alberta, and at Kamloops, B.C., by Mr. W. Spreadborough.

XLV. CASARCA BONAPARTE. 1838.

141.1. Ruddy Sheldrake.

Casarca casarca (LINN.) ALLEN. 1896.

In 1892 the Geographical Society of Berlin sent an expedition to West Greenland, which was accompanied by Dr. Vanhöffen as

naturalist. He reports seeing a skin of this species in a small collection of birds skins made at Augpalartok, in the District of Uppernavik, which was collected in that vicinity in 1892. (*J. A. Allen in The Auk, Vol. XIII, p. 244, 1896.*)

XLVI. **ANAS** LINNÆUS. 1758.

132. **Mallard.**

Anas boschas LINN. 1758.

Breeds in both Inspectorates of Greenland and is not rare. (*Arct. Man.*) A rather common bird; most common in the winter months, a few breed at Ivigtut, Greenland. (*Hagerup.*) It is very rare in Newfoundland and Nova Scotia, and only occasional in New Brunswick. It becomes more common in Quebec, especially in the Montreal district, and in western Ontario, as a migrant, it assembles in great flocks and feeds in the marshes along Lake Erie and Lake St. Clair, where a few pairs remain to breed.

This is the most abundant duck in the Northwest Territories and British Columbia, breeding near ponds and lakes from Lat. 49° to the borders of the Barren Lands. It is not a bird of the sea-coast, but prefers the ponds and lakes of the interior. It was breeding in Vermillion Lake at Banff, 1891, and in Eagle Pass in the Gold Range, B.C., in May, 1890. It is quite common in Alaska and breeds as far north as Kotzebue Sound, according to Nelson. On the Alaskan shores it is not common, but the Aleutian Islands and Unalaska are the feeding grounds of great numbers in winter. One or two pairs breed on St. Paul Island, Behring Sea, each year. A few winter at Vernon, B.C. (*Brooks.*)

BREEDING NOTES.—On May 9th, 1892, at Deep Lake, near Indian Head, Assa., found a nest containing eight eggs about fifty yards from the lake, in a bunch of weeds, it was made of dry grass, lined with down from the bird's breast. I have found many nests of this duck in various parts of the country. Sometimes they are quite near the water, and at other times several hundred yards away. The nest is in a hole in the ground, rather bulky, made of grass and weeds, lined with down. Some of them breed very early in the spring, so early in fact, that I have found eggs cracked with the frost.

On May 4th, 1894, at Medicine Hat, Assa., discovered a nest of this species on the bank of a creek. Nest, a hole in the sand, lined with dry grass, amongst rose-bushes. There were only two eggs; on June 18th another nest was taken under the same conditions at Crane Lake; this nest contained ten eggs. June 7th, 1897, at Edmonton, Alberta, found a nest in a small clump of willows, about three hundred yards from water, the young had not left the nest and the old bird almost let me put my hand upon her before she left; also found breeding at Sooke Lake, Vancouver Island, in 1893. (*Spreadborough.*) A few pairs breed in the large marshes in western Ontario, especially at St. Clair Flats. (*W. Saunders.*) This is the earliest duck to breed. Breeding everywhere I have been in the Northwest Territories. (*Dippie.*) Breeds throughout Manitoba, Assiniboia and Alberta. (*Raine.*)

Dall, at Nulato, Alaska, found a set of eight eggs of the Mallard laid on the rotten wood in the hollow top of a stump about six inches from the ground. They were concealed under a layer of leaves and feathers. (*Nelson.*)

MUSEUM SPECIMENS.

Five specimens taken at Toronto, Ont., Indian Head, Assa., Edmonton, Alberta; Revelstoke and Agassiz, British Columbia.

We have eggs of this species taken in Manitoba, at Indian Head, Assa., at Edmonton, Alberta; and on Vancouver Island.

133. **Black Duck.**

Anas obscura GMEL. 1788.

This is the common wild duck of Newfoundland and the Maritime Provinces. Found breeding in a marsh near Brackley Point, Prince Edward Island, in June, 1888, by the writer, and in the marshes bordering fresh-water ponds on the Magdalen Islands by Bishop. Although not a common bird in Labrador, Spreadborough found it breeding there July 7th, 1896. In Quebec and Ontario it still breeds in diminished numbers, but evidently its chief breeding-grounds are towards the Atlantic coast and Hudson Bay. A few stragglers reach Manitoba, but the writer never observed any west of the Red River valley. Macfarlane obtained the birds at the Anderson River, Mackenzie valley, but no eggs.

BREEDING NOTES.—Breeds at Rice Lake, south of Peterboro', Ontario. (*Raine.*) A few birds of this species were seen in the northern part of Labrador, July 7th, 1896. On this date a nest was taken, containing four eggs, nearly hatched. (*Spreadborough.*) The Black Duck builds generally on the ground at the foot of a tree or low bush. The nest is composed of weeds and grass, nicely lined with feathers, apparently from the breast of the mother bird. The eggs are usually eight or nine in number, and are of a pale, dirty-yellowish drab. A nest found near Ottawa, Ont., on the 24th May, 1897, had eleven eggs in it. It was built at the foot of a little pine tree about 20 yards from the water. (*G. R. White.*)

A very common species in the St. Lawrence valley, where it breeds abundantly. I have seen young broods in the counties of Leeds and Lanark in the month of June. This bird breeds early, commencing to lay sometimes in April. I found a nest containing twelve eggs on the 24th May, 1897, under singular circumstances. Anxious to know whether the loon had again returned to its breeding-ground in a small lake about fifteen miles from Brockville, Ont., I went to the place and procured a boat. There, sure enough, was the nest on the edge of a floating bog and clump of flags, and whilst I was examining that nest and the two eggs in it, out flew a Black Duck from amongst the last year's flags, not an oar's length from the loon's nest. Feeling sure the eggs were there, I managed to reach the spot, though the bog was very shaky, and saw the nest with the number of eggs mentioned. The place where the nest was made was not exactly wet, as there was a matted foundation of dry weeds among which it was well concealed, composed of dry grass and well lined with the down of the bird. Incubation had commenced about a week, which would make the time of commencing to lay about the first week in May in this case. (*Rev. C. J. Young.*) A few pairs breed in the large marshes in Western Ontario. (*W. Saunders.*) At Wolfville, Nova Scotia, a nest of this species was found, in a slight hollow in the ground, lined with dry rushes, and sheltered by a clump of briar bushes. The nest contained two eggs which were only slightly incubated on May 27th, 1897. These eggs were taken by Mr. H. F. Tufts and are now in the Museum at Ottawa. A nest of this species was found at Brackley Point, Prince Edward Island, on June 21st, 1885, with nine young just hatched. The nest was on a hummock in a small marsh near the sandhills.

MUSEUM SPECIMENS.

One specimen of this species is in the collection, taken at Ottawa, by Mr. Whitcher, in 1884. One set of the eggs taken on the Upper Hamilton River, Labrador, by Mr. A. P. Low, May 25th, 1894. Another set of seven from Wolfville, N.S., taken May 27th, 1898, by Harold F. Tufts.

XLVII. **CHAULELASMUS** BONAPARTE. 1838.135. **Gadwell. Grey Duck.**

Chaulelasmus strepera (LINN.) BONAP. 1838.

This species is rarely seen during the migration along the Atlantic Coast; it is also rare in Quebec and Ontario, and McIlwraith says that the pair in his collection are the only ones he has heard of being taken in the latter province, though the bird has been shot at Ottawa by Mr. W. F. Whitcher.

McIlwraith in his "Birds of Ontario," page 70, seems to doubt my statement that they are "abundant throughout the interior." He says they are nowhere abundant and no person has made that statement but myself. Dr. Elliott Coues, in writing of the birds observed by him on the International Boundary says: "Abundant throughout the region, where it breeds, like nearly all the *Anatine*. Young still unfledged were observed late in August." I found them abundant on the prairie in 1880, but in the wooded country in 1881 shot only one specimen. This is the species that breeds almost exclusively in the prairie region, and more than half the nests seen in 1895 in making a traverse from the boundary of Manitoba to the Rocky Mountains were of this species. This and the Lesser Scaup were the common ducks of the southern prairie. Richardson says it breeds in numbers to Lat. 68°, and Macfarlane says he believes it breeds as far north as Anderson River.

It is generally a rare bird in Alaska and British Columbia, but Turner reports it common in summer in the Yukon Delta.

BREEDING NOTES.—A pair of this species reached Deep Lake, Indian Head, Assa., on April 18th, 1892, and by May 6th they were common; on June 24th found a nest on a small island in the lake, containing eight eggs. It was made of dry grass lined with down from the female's own breast. In 1895, nests of this species

were taken at Twelve-mile Lake, near Wood Mountain, on June 4th, and on June 29th on an island in Cypress Lake, 150 miles further west. The latter nests were in clumps of *Elymus condensatus*. Number of eggs in a set ranged from 7 to 11; breeds in large numbers at Edmonton, Alberta. On June 9th, 1894, at Crane Lake, Assa., took a nest of this species containing thirteen eggs, seven of which were of the Lesser Scaup. (*Spreadborough*.) Fairly common on Lake Manitoba, where both eggs and specimens were taken; also common on Buffalo Lake, Alberta, July, 1895. (*Dippie*.)

I have found this species breeding at Long Lake, Shoal Lake, and Lake Manitoba, in Manitoba; also at Rush Lake and Crane Lake, Assiniboia. In fact it breeds throughout the country stretching from Winnipeg to the Rocky Mountain foot-hills. It is a late breeder and lays from ten to twelve pale, buff-coloured eggs. It makes its nest on the ground and prefers islands in the small lakes. (*Raine*.)

On a small knoll in a marsh at Crane Lake the writer found a nest of this species in a tuft of grass on June 11th, 1894. The nest contained five fresh eggs, while at the same time young of the Mallard, of a good size, were swimming around.

MUSEUM SPECIMENS.

Two pairs. One specimen was taken in Toronto marsh and the three other at Indian Head, Assa. Several sets of eggs, part taken at Crane Lake, June, 1894, and part at Cypress Lake, Assa., June 29th, 1895.

XLVIII. **MARECA** STEPHENS. 1824.136. **European Widgeon.**

Mareca penelope (LINN.) SELBY. 1833.

A young drake sent by Holboell to Denmark in 1851; Reinhardt has seen two others that were killed in South Greenland. (*Arct. Man.*) Accidental in Greenland. (*Winge*.) Accidental in Nova Scotia. (*Downs*.)

In Alaska they seem to be more common. A few individuals were obtained by Mr. Elliott on the Prybiloff Islands during two years' residence. It was never in pairs and seemed to be a winter

visitor only. As it has never been seen to the north I am inclined to believe that it breeds on some secluded island of the Aleutian Islands. (*Nelson.*)

137. **American Widgeon. Baldpate.**

Mareca americana (GMEL.) STEPHENS. 1824.

Reported as a common migrant in Newfoundland (*Reeks*) and southern Labrador. (*Packard.*) Rare migrant in Nova Scotia, New Brunswick and Quebec; extending its range to Moose River, where one was observed by Spreadborough in June, 1896, and the south shore of Hudson Bay at Fort Churchill. It is rather more common in Ontario, but only as a migrant.

This is a late duck to arrive in the prairie region, and yet, according to Richardson, it breeds abundantly as far north as Lat. 68°. It breeds abundantly in the marshes of the southern part of the prairie region, and is still more abundant to the north. It is a common species in Manitoba, and northwesterly. One pair was found breeding at Banff, Rocky Mountains, in May, 1894.

Fannin and Brooks report it common in the Fraser valley and interior of British Columbia, while Nelson and Turner say that it is a comparatively rare-breeding duck in Alaska, though it breeds as far north as Kotzebue Sound, according to Nelson.

From the species coming late to Manitoba and yet breeding as far north as Lat. 68°, I am led to believe that the race which breeds in Manitoba is different from that which is found in northern Alaska and the Barren Grounds, and that the latter race has its winter home on the Pacific side of the continent.

BREEDING NOTES.—Breeding in the vicinity of Lake Manitoba, 1896. (*Dippie.*) This species also breeds throughout Manitoba and Assiniboia. The eggs are similar to the Gadwell, but average smaller in size. I have a clutch of ten eggs in my collection which I took at Shoal Lake, Manitoba, June 18th, 1894. (*Raine.*) A few reached Edmonton, Alberta, by April 17th, 1897, but not until May 5th were they common. On June 1st found a nest containing eleven eggs in a clump of willows about a quarter of a mile from water. The nest was of the usual character, and, like all other ducks' nests, was lined with down. (*Spreadborough.*)

MUSEUM SPECIMENS.

One pair, taken at Indian Head, Assa., in May, 1892, by Mr. W. Spreadborough. One set of eleven eggs of this species, taken at Edmonton, Alberta, June 1st, 1897, by Mr. W. Spreadborough. Also other eggs taken by Mr. Raine at Rush Lake, Assa.

XLIX. **NETTION** KAUP. 1829.138. **European Teal.**

Nettion crecca LINN.) KAUP. 1829.

Accidental on the eastern coast of the Dominion. A few examples have been killed in Danish Greenland. (*Arct. Man.*) Coues obtained a female in Labrador, July 23rd, 1860. (*Packard.*) Very rare in Nova Scotia. Only one specimen taken as far as I am aware. (*Downs.*) A male of this species was procured by me at Atka Island, June 28th, 1879. It was the only specimen I ever observed. (*Turner.*)

139. **Green-winged Teal.**

Nettion carolinensis (GMEL.) BAIRD. 1858.

Four specimens are known to have been taken in South Greenland prior to 1860. (*Arct. Man.*) Since 1860 one male and two females have been taken in Greenland. (*Winge.*) It is a summer resident on the coast of Labrador, in Newfoundland and New Brunswick, but seems to be rare inland, although it has been taken at York Factory and Churchill. It may breed in Quebec, but though moderately common in Ontario is not known to breed there.

From Manitoba to the Pacific Coast this bird is common and breeds in greater or lesser abundance from Lat. 49° to the Arctic Sea and throughout British Columbia and Alaska. It is rare in the Rocky Mountains, but was breeding on Vermilion Lakes at Banff, in May, 1891; and at Tête Jaune Cache, B. C., in June, 1898. It seems to prefer the valley of the Mackenzie for its northern range, as it is known to be rare to the eastward of that valley, and Macfarlane says that it is the rarest of the breeding ducks at Fort Anderson. Its centre of abundance is from Lat. 50° to 56° in the territories.

BREEDING NOTES.—Breeding in suitable places throughout the northwest. (*Dippie.*) Breeds throughout Manitoba and Assiniboia. I found a nest containing eggs at Crane Lake, Assiniboia, June 5th, 1893. It is not so plentiful as the Blue-winged Teal. (*Raine.*)

Dall notes this species as one of the first arrivals on the Yukon in spring, and one of the first to lay its eggs. One set of eggs was taken from a nest of dry grass in a sedge tussock, on May 20th, at Nulato. (*Nelson.*)

This species was breeding in great numbers in willow thickets and sparsely wooded ground around Edmonton, Alberta, in the spring of 1897. The nests were hard to find as they were far away from water. The first arrivals were about April 17th and by the 24th these birds were common. On May 25th found a nest in a clump of willows about a quarter of a mile from water. Nest made of grass lined with down. It contained nine eggs, quite fresh. Another nest of the same character was found under a log, on June 1st, about 150 yards from water. This nest contained seven fresh eggs. (*Spreadborough.*)

MUSEUM SPECIMENS.

Three specimens, one taken at Toronto, by Mr. S. Herring, in 1886; and a pair taken by Spreadborough at Indian Head, Assa., in 1892.

Of eggs, we have two sets of seven and nine respectively, taken at Edmonton, Alberta, in the spring of 1897, by Spreadborough.

L. QUERQUEDULA. STEPHENS. 1824.

140. Blue-winged Teal.

Querquedula discors (LINN.) STEPHENS. 1824.

This is a rare bird in Newfoundland and in Nova Scotia, except in the autumn migrations. Chamberlain says it is a common summer resident near St. John, New Brunswick. It seems to be moderately common in Quebec and Ontario during the migrations, and a few pairs are reported still to breed on the St. Clair Flats. Wintle says a few may probably breed near Montreal.

Thompson says it is very abundant in Manitoba, and our own observations show that it is so westward as well, but it becomes

specially so in the mixed prairie and copse country north of Lat. 50°-52°. Richardson found it plentiful on the Saskatchewan, but not extending north of Lat. 58°. Ross found it on the south side of Great Slave Lake. Nelson and Turner found it very rare in Alaska, and Fannin says it is a very rare bird in British Columbia. Brooks claims, however, that it is a common summer resident in the Lower Fraser valley.

Only one pair was observed in Labrador, at Clearwater Lake, July 11th, 1896. They were evidently breeding. This species was common at Edmonton, Alberta, in the spring of 1897. It was first observed on April 28th, and was common by May 2nd. On May 19th found a nest far from water, built exactly like that of the Green-winged Teal. It contained two fresh eggs. Bird shot as she rose from the nest. (*Spreadborough.*) A pair occasionally remains to breed in the St. Lawrence valley, but the greater number pass to the north. The nest has been found at Gananoque Lake, and one is recorded from a marsh at the west end of Amherst Island, Lake Ontario. (*Rev. C. J. Young.*) A nest of this species was taken June 14th, 1896, at Burnt (Swan) Lake, Alberta. It was in a hollow in a tuft of grass, lined with fine grass and down, about twenty yards from edge of water. Nest contained twelve eggs, now in the Museum at Ottawa. (*Dippie.*) A few pairs of this species breed in the marshes at Lake St. Clair; nests have also been taken at Rondeau, Lake Erie. (*W. Saunders.*)

MUSEUM SPECIMENS.

Our collection includes five specimens, taken at Toronto, Ont., Indian Head, Assa., and Kamloops, B.C.

One set of twelve eggs, obtained from Mr. Dippie.

141. Cinnamon Teal.

Querquedula cyanoptera (VIEILL.) CASSIN. 1855.

A very rare straggler in Manitoba, only a few specimens having been taken in fifteen years residence. (*R. H. Hunter.*)

Fannin, Lord and Brooks say it is a regular summer visitor in British Columbia.

Only two specimens came under our notice on the prairies. These were in southwestern Alberta, near the mountains.

MUSEUM SPECIMEN.

One male taken at Kamloops, British Columbia, in June, 1889, by Mr. W. Spreadborough.

LI. SPATULA BOIE. 1822.

142. Shoveller. Spoon-bill.

Spatula clypeata (LINN.) BOIE. 1822.

This species is a summer migrant in Newfoundland, Nova Scotia, New Brunswick, Quebec and Ontario, but we have no record of its breeding, except that McIlwraith says that Dr. Macallum observed one leading its young within half a mile of Dunnville, at the mouth of the Grand River, Lake Erie, and Saunders and Morden say it may breed on the St. Clair Flats.

This is one of the commonest ducks in the prairie region, from Manitoba to the mountains and from Lat. 49° to the Barren Grounds, where it becomes rare, as Macfarlane says only a couple of specimens were collected at Fort Anderson in six years. Between Lat. 51° and Lat. 54° it is specially abundant, and is found in the autumn in immense numbers in every pond and lakelet. A few pairs were breeding on Vermilion Lakes, at Banff, in May, 1891; and at Lake Ste. Anne, Alberta, June, 1898.

It is a rare species in Alaska, though Nelson reports it breeding as far north as Kotzebue Sound. Fannin says it is an abundant summer resident on the mainland of British Columbia, east of the Coast Range, and Brookssays it is a common resident in the Lower Fraser valley about Sumas Lake.

BREEDING NOTES.—Common near Reaburn, Manitoba, and also at Buffalo Lake, Alberta, where both eggs and birds were taken. (*Dippie*.) One of the commonest ducks of northwest Canada. Breeding abundantly throughout Manitoba and Assiniboia, but rarer in Alberta. It lays from ten to twelve eggs, making a nest in the grass not far from water. (*Raine*.)

This species breeds with other water-fowl on all the marshes from Kotzebue Sound to the mouth of the Kuskokwim. The eggs are deposited the last of May and first of June in a dry spot near some pond or stream, and the nest is usually lined with grass and feathers, the latter from the parent's breast. (*Nelson*.)

This species was found breeding plentifully near small streams descending from the Cypress Hills and by small marshy lakes at Crane Lake, Assiniboia, June 9th, 1894. While beating rose-thickets for nests the writer flushed a female off a nest containing ten eggs, too much incubated to be taken; shortly after I flushed another nesting in the same manner, but there were only eight eggs in the set, quite fresh. Both nests were under rose-bushes on dry ground and lined with grass and down. On the 11th June, in some patches of rose-bushes, I found two more nests, one having eleven and the other nine eggs.

MUSEUM SPECIMENS.

Eight specimens taken at Toronto, Ont., Indian Head, Assa., Edmonton, Alberta, and Kamloops, British Columbia.

Several sets of eggs taken at Indian Head, Assa., in 1892, and at Crane Lake in June 1894.

LII. **DAFILA** STEPHENS. 1824.143. **Pintail. Springtail.**

Dafila acuta (LINN.) BONAP. 1838.

Very rare in Newfoundland; more common in Nova Scotia, and Chamberlain reports a few breeding in New Brunswick. It has been taken in Davis Strait and in Hudson Bay at York Factory. Spreadborough saw a number on a small island in James Bay, June 16th, 1896. It is not a rare migrant in Quebec and Ontario, and according to Saunders a few breed on St. Clair Flats.

This species breeds in numbers throughout the Northwest Territories, and extends its breeding range from Lat. 49° to the Arctic coast. Richardson and Macfarlane both speak of its abundance in the Barren Grounds. Nelson and Turner say that this is the commonest duck in Alaska, and Murdoch reports it breeding quite close to Point Barrow on the Arctic Sea. This species is a resident in British Columbia and breeds on the mainland. Fannin says they congregate in great flocks in some localities on the coast in winter, but more especially on the Lower Fraser.

BREEDING NOTES.—Breeding commonly in Manitoba and Assiniboia. It seldom lays more than nine eggs and nests in similar situations to the Shoveller. Its eggs can be distinguished from those of the Shoveller by their larger size. Two clutches of nine eggs each are in my collection taken at Rush Lake, Assiniboia,

May 25th and 28th, 1893. Both nests were in hollows in the grass, were lined with down, and found near water. (*Raine.*)

This is about the first water-fowl to commence nesting. The date when the first eggs are laid varies from May 18th to 25th, according to the season. The eggs are placed in a depression on some tussock or among the grass and other vegetation beside a pool, usually where it is pretty well concealed. The eggs number from six to twelve in a set. They are rather small, and usually pale olive-green when fresh. The nest is lined with grass-stems and feathers. When the young are hatched the parent leads them to the adjacent pool, and they keep in the most secluded parts of the marsh until able to take wing. (*Nelson.*)

Breeding in some numbers at Edmonton, Alberta, although no nests were taken; two nests of this species were taken at Twelve-mile Lake, near Wood Mountain, Assa., on June 5th, 1895; the nest in one case was made of the dried stems of *Eleocharis palustris* and lined with down. It contained ten eggs almost fresh. Another was taken amongst some sage-brush a little distance from the water. This nest held seven fresh eggs. A few nests of this species were taken on an island in Cypress Lake, south of the Cypress Hills, June 29th, 1895; the nests were in clumps of rye-grass (*Elymus condensatus*), and one female was shot as she rose from the nest. (*Spreadborough.*) This species breeds at St. Clair Flats and in fewer numbers at Rondeau, Lake Erie. (*W. Saunders.*) Quite abundant in the "Barrens." The nest was usually a small cavity or depression in the ground, lined with down, withered leaves, and a few feathers. It lays from six to eight eggs. It deserts the nest immediately the eggs are hatched and young and old take to the water. (*Macfarlane.*)

MUSEUM SPECIMENS.

Four specimens taken in Toronto marsh by Mr. S. Herring, and at Kamloops, British Columbia, by Spreadborough.

One fine set of eleven eggs taken at Twelve-mile Lake, Assa., and others taken at Rush Lake, Assa., by Mr. Raine.

LIII. AIX BOIE. 1828.

144. Wood Duck.

Aix sponsa (LINN.) BONAP. 1838.

Rare. A few breed in Nova Scotia. (*Downs.*) A rare summer resident. Breeds in New Brunswick. (*Chamberlain.*) Stearns reports

it as common in the interior of Labrador, but none of our explorers have ever seen a specimen there. Wintle says not many breed around Montreal, but they are plentiful in the autumn and mostly young birds. Summer resident around Ottawa, and breeds in Dow's Swamp, close to the city. Breeds in suitable places throughout southern Ontario. That it occurs, perhaps in abundance, in northwestern Ontario is indicated by its occurrence in numbers in eastern Manitoba and along the shores of Lake Winnipeg. Thompson shows that it occurs as far west as Carberry, over one hundred miles west of Winnipeg, and it has been seen on Lake Winnipegosis, and shot at Cumberland House, in Lat. 54°.

We have never observed this species on the prairie or in the Rocky Mountains, but after crossing the Coast Range and descending to the Lower Fraser, at Agassiz, we found it breeding. Fannin reports it abundant and breeding along the Lower Fraser at Sumas, Chilliwack, and Burnaby Lake; and Brooks says that an odd bird or two often remains all winter.

This is another species that has an eastern and a western race that are not known to interbreed.

BREEDING NOTES.—For several years a pair used to breed in a soft-maple stub, about twenty feet from the ground, on the bank of a creek near Bracebridge, Ont. I never saw the nest, so cannot describe it, but have seen the old bird carry her young to the water in her bill. (*Spreadborough.*) This species builds in holes in trees and places where large branches have broken away. The nest is composed of dry grass and feathers. The eggs—six to twelve or more—are something between a buff and a pale green in colour. When the nest is built on a broken branch it is composed of dry sticks, grass and feathers. About the first of May is the time when they begin to lay at Ottawa, Ont. (*G. R. White.*) A few years ago this handsome duck was quite common in the latter part of summer in many creeks that run into the St. Lawrence. In these same localities now (1898) I scarcely see any birds. A few pairs breed every year at Escott Pond and elsewhere in the County of Leeds, and I have seen young birds in June, though I have never seen the nest. (*Rev. C. J. Young.*) Regularly distributed throughout western Ontario. Breeds along marshes and rivers. (*W. Saunders.*)

MUSEUM SPECIMENS.

Three specimens; one taken at Ottawa, another at Toronto, and the third—a fine male—at Agassiz, B.C., May 15th, 1889, by Spreadborough.

LIV. **AYTHYA** BOIE. 1822.146. **Red-head. Pochard.**

Aythya americana (EYT.) BAIRD. 1858.

Rare migrant in Nova Scotia and New Brunswick, and also rare on the coast of Labrador, none seen in the interior. Rather common in the Gulf and River St. Lawrence, and, according to McIlwraith, often abundant in Ontario during the migrations. Saunders reports them breeding in the large marshes at Lake St. Clair.

This species is very common in Manitoba and in the marshes to the north and west. It is found in more or less abundance all through the prairie region but is more common as we approach the large weedy marshes north of Lat. 51°. This and the next species are so much alike that they are easily mistaken for one another. Our experience, however, is that this duck is more southerly and easterly in its distribution than the Canvas-back. It is a winter resident on the coast of British Columbia, and both Streater and Fannin report it breeding in small numbers around small lakes in the interior. It has not been reported from Alaska.

BREEDING NOTES.—Breeding everywhere I have been throughout the northwest. (*Dippie.*) The writer has never found the nest of this species anywhere but among the reeds on the margins of sloughs. The nests are bulky, being made of reeds and grass lined with down.

Breeds throughout Manitoba, Assiniboia and Alberta, and makes its nest in shallow water. It is a remarkable fact that the Red-head and Canvas-back often lay their eggs *in one nest*. I have never seen this statement recorded in any ornithological work. This was first brought to my notice on June 18th, 1891, when I found a nest at Long Lake containing eight eggs of the Canvas-back and four of the Red-head. There was considerable difference in the eggs of the two birds. The eggs of the Canvas-back were larger than those of the Red-head and of a

different tint, being of the usual ashy green, while the four eggs of the Red-head were smaller than those of the other and were of a buff-drab tint and very glossy. There was not the slightest doubt about the eggs being laid by both species. Since then my collectors have frequently found nests containing eggs of the Canvas-back and Red-head in the same nest. On May 20th, 1897, Mr. Baines found a nest at Crescent Lake, Manitoba, containing nine eggs of the Canvas-back and seven of the Red-head. The nest was built in rushes in shallow water. (*Raine.*) A very common migrant in western Ontario. Some breed in the large marshes, especially at St. Clair Flats. (*W. Saunders.*)

MUSEUM SPECIMENS.

Four; one taken in Toronto marsh, two at Indian Head, Assa., and the other at Edmonton, Alberta. Several sets of eggs are in the collection, taken at Indian Head and Crane Lake, Assa.

147. Canvas-back Duck.

Aythya vallisneria (WILS.) BOIE. 1826.

Rare migrant in Nova Scotia and New Brunswick; more plentiful in Quebec, and increasingly so in Ontario.

Although this species breeds in the same ponds with the Red-head in Manitoba and Assiniboia, it is rare in eastern Manitoba, but becomes more common as one passes to the west; west of the 110th Meridian it almost supersedes the Red-head. At Edmonton, on the Saskatchewan, in 1897, Spreadborough found this species very common, and the Red-head rare and late in arriving; in 1898, he found it breeding in small lakes between Edmonton and Lake Ste. Anne, Alta.

Macfarlane and Ross record it on Great Slave Lake, and the former says a few sets of eggs were taken near Fort Anderson in the Barren Grounds. Dall found it breeding at Fort Yukon, in Alaska, in great abundance, though Nelson says he never saw any evidence of it on the west coast. Spreadborough, Brooks and Fannin all mention that it is plentiful in winter around Victoria and at the mouth of the Fraser, and Fannin says it breeds in the interior of British Columbia; Brooks says it winters on Lake Okanagan.

As the writer has seen it in immense numbers on Lesser Slave Lake and in the Peace River country, he is satisfied that it breeds

from Indian Head northwesterly to Fort Yukon in Alaska. The country northwest of Edmonton suits it well, as there are many marshes full of *Scirpus lacustris* and tall grasses, among which it likes to breed.

BREEDING NOTES.—Fairly common at Reaburn, in Manitoba, and at Buffalo Lake, Alberta. In both places eggs and birds were procured. (*Dippie*.) Nests are always in the reeds growing in the water; they are very bulky, and made of grass and reeds lined with down. A nest of this species was found on a muskrat house in a marsh at Crane Lake, June 15th, 1894. It contained seven eggs. (*Spreadborough*.) I have found this species breeding at Long Lake and Shoal Lake in Manitoba, and at Crane Lake in Assiniboia. It breeds also throughout Alberta. The only other species of ducks' eggs they can be compared with are the American and Barrow's Golden-eye, which they greatly resemble, both in regard to size and tint. The Canvas-back is a late breeder, nesting toward the latter part of June. I found a nest containing seven eggs at Long Lake, Manitoba, June 29th, 1893. The nest was built, as usual, in the centre of a tuft of rushes in shallow water, as this duck seldom nests in the grass like the Pintail, Shoveller, and Teal. (*Raine*.)

Scaups, Canvas-backs and Red-heads undoubtedly breed in the same marshes, and with them the Ruddy Duck. In the marshes at Crane Lake, between June 12th and 20th, the writer found nests of all four species, with eggs of one or two other species in them. The bulky nest mentioned under the Greater Scaup was likely built by a Canvas-back, but the larger number of the eggs were those of a Scaup.

MUSEUM SPECIMENS.

Three specimens. One female and two males. One was shot in Toronto marsh; one at Edmonton, Alberta, and the other in Victoria Harbour, Vancouver Island, the last two by Spreadborough.

Three sets of eggs, taken at Edmonton, Alberta, in the spring of 1897.

148. American Scaup Duck. Big Black-head.

Aythya marila (LINN.) BOIE. 1822.

A very rare straggler in Newfoundland; rare migrant in Nova Scotia, and occasionally taken in New Brunswick. Spreadborough

observed a few on James Bay and in the interior of Labrador in 1896. Quite common in Quebec, and abundant in southwestern Ontario during the spring and fall migrations. A few are said by Saunders to breed on the St. Clair Flats; not rare in the St. Lawrence valley in the spring and autumn.

A few breed at Lake Winnipeg (*Gunn*), and the writer found them breeding on Lake Winnipegosis, but evidently the greater number go north, and doubtless breed around the large lakes north of Lake Winnipeg. It is a common duck in Alaska and along the whole Aleutian chain, and, according to Turner, remains the entire year.

An abundant resident in British Columbia; breeds chiefly east of the Coast Range; winters on the coast. (*Fannin*.) Tolerably common in the Lower Fraser valley, and wintering on Lake Okanagan, B.C. (*Brooks*.) Breeding in small lakes between Edmonton and Lake Ste. Anne, June, 1898. (*Spreadborough*.)

BREEDING NOTES.—Eggs taken at Buffalo Lake, Alberta, June 14th, 1896. Seems to breed in most localities. (*Dippie*.) Nest always near water; it is a shallow hole in the ground, lined with grass and down. (*Spreadborough*.)

Breeds throughout northwestern Canada, but is rarer than most other ducks; breeding more commonly further north. On June 10th, 1891, at Rush Lake, Assiniboia, I found a nest containing nine eggs, built on the ground amongst grass, near water. The eggs are distinguished by their large size and drab tint. (*Raine*.)

At St. Michael and the Yukon Delta this species arrives about the 8th or 10th May. The nesting sites chosen are such as the Pintail and most other ducks choose—a dry, grassy tussock or knoll close to some pond; the only difference being that this species appears to desire a position nearer to the water, and the nest is frequently at the point of some small jutting cape, and so near the water that the parent can swim to and from the nest. The eggs are large for the size of the bird, and rarely exceed eight in number. The nest is composed of dry grass-stems, gathered close at hand, and a large fluffy bed of down plucked from the parent's breast. The first week in June is the time usually chosen for depositing the first eggs, but some are not laid until nearly a month later. (*Nelson*.)

On the Magdalen Islands in June, 1897, I met with this species at East Cape, Grosse Isle, breeding, and secured its eggs. A few pairs breed on the small, boggy islands in the large ponds, not far from the sand-banks that separate these ponds from the sea. The eggs are about the size of those of the Merganser, but are more of a buff colour, and their peculiar shape, which is almost invariable, best distinguishes them. They are not laid until late in June. A correspondent wrote me about two nests he found in July, after I left the islands, as follows:—"I found a Blue-bill's nest in a strange place, after you left me. It was in a bunch of rushes at the head of the bay, growing in water that took me up to my middle to reach them. There were two nests, one with two and the other with five eggs. The two were fresh and the others badly incubated." (*Rev. C. J. Young.*) A very common migrant. A few pairs breed at St. Clair Flats. (*W. Saunders.*) Both the Greater and Lesser Scaups breed at Crane Lake and in and near the adjoining marshes. On June 15th, 1894, the writer found a nest of this species, containing ten eggs, it was in a hole in the ground and lined with feathers and grass. Three days later another nest of eleven eggs was taken under the same conditions. In a marsh on the 14th a large nest containing eleven eggs was found among rushes (*Scirpus lacustris*); nine of these belonged to the Scaup, and two larger and quite blue eggs were referred to the Canvas-back. Passing out of the rushes I flushed another Scaup out of the grass and found a nest made of dried grass and lined on the sides with down. This nest contained twelve eggs, and still another had twenty-one fresh eggs, evidently of three species—Lesser Scaup, Red-head and Ruddy Duck.

MUSEUM SPECIMENS.

One male, taken in Toronto marsh by Mr. S. Herring.

One set of six eggs, taken on James Bay, near Whale River, June 16th, 1896, by Mr. W. Spreadborough.

149. Lesser Scaup Duck. Blue-bill.

Aythya affinis (EYT.) STEJN. 1885.

A pair was shot in June on Inosusulik, an islet about ten miles from Egedesminde; it may breed in Greenland. (*Arct. Man.*) A male and a female taken in Greenland in 1872 and a female in

1891. (*Winge.*) Breeds in large numbers on Nottingham Island in Hudson Strait; and at Churchill and York Factory, Hudson Bay. (*Dr. R. Bell.*) A rare summer migrant in Nova Scotia. Once captured a brood of young ones on Grand Lake. (*Downs.*) In New Brunswick, Quebec and Ontario, this is only a migrant, and I strongly suspect that some of the breeding stations mentioned above are those of the Greater Scaup, which is certainly a more eastern bird than this species. It is one of the commonest ducks in the prairie region and northward to the very edge of the Barren Grounds. It breeds in all the ponds and by the little lakes from Lat. 49° to the Arctic Circle and beyond. Nelson says this is a very rare straggler in Alaska. Fannin and Brooks report it tolerably common in British Columbia. The latter says it winters on Lake Okanagan, B.C.

BREEDING NOTES.—This species was first seen at Deep Lake, Indian Head, Assa., on April 16th, 1892, at which time eight individuals were observed; they very shortly after came in great numbers, and a pair shot had their stomachs full of water-insects, which are very abundant in the lake. On June 23rd found a nest containing nine eggs. The nest was in the middle of a "slough" in a mass of last year's rushes (*Scirpus lacustris*), lined with down from the bird's own breast. (*Spreadborough.*) Three sets of eggs taken at Burnt Lake, Alberta, June 14th and 15th, 1896; breeds also in Manitoba, but nowhere common. (*Dippie.*)

More numerous than the preceding species, breeding throughout northwestern Canada. In Assiniboia it usually nests on the small islands in the lakes. On June 15th, 1893, I found three nests on a small island where a colony of Avocets was nesting. The nests were built on the grass in hollows, lined with down. The eggs, like the preceding species, are dark drab, but of course much smaller in size. (*Raine.*)

Over a dozen nests of this species were secured. They were usually found in the midst of a swamp, a mere hole or depression in the centre of a tuft of turf or tussock of grass, lined with more or less down, feathers and hay. Nine was the general number of eggs in a nest, though a few contained not more than six or seven. (*Macfarlane.*)

On the 29th June, 1895, this species was found breeding in company with the Pintail and Gadwell on an island in Cypress Lake,

on the south side of Cypress Hills, Assa. Of three sets taken, two contained eight and one nine eggs.

MUSEUM SPECIMENS.

We have ten fine specimens of this species taken in various places. One was shot in Toronto marsh; five were taken at Indian Head, Assa.; one at Edmonton, Alberta; two at Kicking Horse Lake, Rocky Mountains, and one at Kamloops, British Columbia.

A number of sets of eggs of this species are in the collection taken at Crane Lake, in June, 1894, and at Cypress Lake, Assa., on June 29th, 1895.

150. **Ring-necked Duck.**

Aythya collaris (DONOV.) RIDGW. 1885.

Reported to be rare in Newfoundland, Nova Scotia and New Brunswick. It becomes more common in Quebec and still more so in southwestern Ontario. It seems to be only a migrant in all the eastern provinces. Manitoba and the ponds, lakes and marshes to the north of it seem to be its summer home. We have never observed it in the prairie regions and only know of one breeding haunt—the marshes around Waterhen Lake, Manitoba. Owing to its eastern migration I believe it to breed in great numbers both north and east of Lake Winnipeg. Ross has noticed it occasionally as far north on the Mackenzie as Lat. 62° 30'. Turner says this bird is not common in the vicinity of St. Michael. In this locality he never found nest or eggs, but it undoubtedly breeds there. It is rarely seen about the Aleutian Islands.

Common in the valley of the Lower Fraser. None of the Red-heads, Canvas-backs or Scaup Ducks were ever found breeding by me in the Fraser valley. This species winters on Lake Okanagan, B.C. (*Brooks.*)

BREEDING NOTES.—Rarer than either of the preceding species. On June 19th, 1891, I found a nest containing nine eggs at Long Lake, Manitoba. The nest was made of sedges and lined with grasses, feathers and down, a basket-shaped structure, built in the centre of a tussock of rushes. The eggs are olive-gray with a buffy tinge and are very similar to eggs of the Scaup Duck in size and colour. (*Raine.*)

MUSEUM SPECIMEN.

One specimen bought with the Holman collection.

LV. **CLANGULA** LEACH. 1819.151. **American Golden-eye. Whistler.**

Clangula clangula americana FAXON. 1896.

An abundant winter resident on the Atlantic coast. Often breeding in trees in Newfoundland. (*Reeks.*) Seen on the Moose River and James Bay in June, 1897; none seen in the interior of Labrador. (*Spreadborough.*) Specimens taken in Ungava Bay and at Fort Churchill, Hudson Bay; seen passing north of Lake Mistassini by Mr. J. M. Macoun on May 3rd, 1885. In Ontario and Quebec it is a common migrant, but we have no records of it breeding in these provinces.

This species is tolerably common in Manitoba and in the wooded part of eastern Assiniboia, where it breeds, and northerly to Norway House, north of Lake Winnipeg, where it was found by Dr. R. Bell. Without any doubt its chief breeding-ground is toward the mouth of the Saskatchewan, and down the Nelson and Churchill rivers. As it breeds chiefly in poplar trees, it will be found generally breeding where these trees are in profusion. The writer has found this bird breeding on Buffalo Lake, near Methye Portage, in Lat. 56° N. Ross says it extends to the Arctic coast in the Mackenzie River valley, and is not rare.

This is an extremely rare bird on the western and northern coasts of Alaska. In four years I saw only four birds. It is a common duck in the interior, and reaches the mouth of the Yukon in the breeding season. (*Nelson.*) It winters on the west coast from Unalaska (*Turner*) to the Fraser River and Lake Okanagan, where it is abundant. (*Brooks.*)

BREEDING NOTES.—Fairly common in Manitoba and Alberta. Downy young shot at Reaburn, Manitoba, July 4th, 1893. (*Dippie.*) In June, 1892, at Deep Lake, Indian Head, Assa., various nests of this species were taken in hollow trees. One was found in a hollow cottonwood, about fifteen feet from the ground, and another in a hollow elm tree, about twenty-five feet from the ground. This nest was made of rotten wood lined with down.

Another was in an elm stub, and the hole by which the bird entered was about five feet from the ground. The nest itself was on a level with the ground, and made of rotten wood without any down. I think they do not use down until after they begin to sit, and that it is added to keep the eggs warm when away feeding. I also found a nest in a hollow cottonwood log on the ground. None of the nests were more than seventy-five yards from the water, and some only a few feet from it. (*Spreadborough.*)

Breeds throughout Manitoba, northern Assiniboia and Alberta, laying its eggs in holes in trees. (*Raine.*)

A small flock of these birds was observed about the Bay of Quinté, Lake Ontario, in August, 1897, and two or three were shot a little later; it is very probable a pair or two nested not far off. (*Rev. C. J. Young.*)

This bird prefers to nest in a tree some fifteen or twenty-five feet from the ground. The nest is composed of grass, leaves and moss, lined with feathers. The eggs, eight or more in number, are of an ashy-green colour. It lays about the middle of May, or later. In 1894 a pair of these birds built near a large pond within a short distance of Templeton, Que., a few miles from Ottawa, and raised a small brood of five. On the 23rd of June these youngsters were quite able to dive and follow the old bird twenty yards under water. (*G. R. White.*)

MUSEUM SPECIMENS.

One specimen; taken at Toronto in 1865.

Two sets of eggs, taken at Indian Head, Assa., in June, 1892.

152. **Barrow's Golden-eye.**

Clangula islandica (GMEL.) BONAP. 1842.

Breeds in South Greenland only, apparently not further north than Godthaab. (*Arct. Man.*) Stragglers have been taken all along the Atlantic coast from Hudson Strait south to the Bay of Fundy. They are more abundant to the north and become rare in the Gulf, though they are taken in the St. Lawrence and on Lake Ontario and Lake Huron.

Dr. Elliott Coues records in his "Birds of Montana and Dakota," the occurrence of a brood of this species on Chief Mountain Lake, Waterton Lake, Rocky Mountains, on the United States side of the International Boundary. In 1895 the writer saw a few speci

mens at the north end of the same lake, and in July, 1885, a female and young were obtained in Kicking Horse Lake, Rocky Mountains. Dr. Richardson named the species from a specimen taken in the Athabasca Pass, and Macfarlane took two specimens as far north as Fort Anderson. It is of rare occurrence in Alaska, but young were taken at Chilcat as early as April 24th by Nelson.

Regular visitor in British Columbia. (*Lord.*) During the breeding season of 1891 I found this duck very abundant on nearly every lake along the Cariboo road; it has also been taken by Mr. W. B. Anderson at Port Simpson, on the coast of British Columbia. (*Fannin.*) Rare inland except in summer, but common on the coast of British Columbia. (*Brooks.*)

BREEDING NOTES.—I have had eggs sent me which were taken out of a hollow tree at Devil's Lake, near Banff, Rocky Mountains. (*Raine.*)

MUSEUM SPECIMEN.

One fine male taken on the coast of British Columbia by Mr. John Fannin.

LVI. **CHARITONETTA** STEJNEGER. 1885.153. **Buffle-head. Spirit Duck.**

Charitonetta albeola (LINN.) STEJN. 1885.

One taken in 1827 at Godthavn and another at Frederikshaab in 1891. (*Winge.*) Rare migrant in Newfoundland and Nova Scotia. Chamberlain says it is a common resident in New Brunswick, and supposes it breeds there. Rather common migrant in Quebec and Ontario, and reported by Saunders to breed at St. Clair Flats. This species, like the Golden-eye, prefers the vicinity of lakes and deep ponds and river valleys where there is timber. It is a summer resident in all the forest country from Manitoba northwesterly to the Rocky Mountains, and according to Ross descends the Mackenzie River to the Arctic Sea. Nelson and Turner report it as a rare bird in Alaska, but more common on the Upper Yukon. Streator, Fannin and Brooks report it common and breeding in British Columbia, and wintering on the coast, and the latter says it winters on Lake Okanagan, B.C.

BREEDING NOTES.—Rare in Alberta but breeds there. Three downy young were shot June 20th, and five more June 22nd, 1896,

at a small lake about eight miles northwest of Red Deer, Alberta. (*Dippie*.) Breeds throughout northwestern Canada. One of the rarer ducks. I have both eggs and young taken in the downy stage at Long Lake, Manitoba. A set of seven eggs in my collection was taken out of a tree at Long Lake. It appears that when trees are scarce, as in Assiniboia, along the Missouri Côteau, this bird will lay its eggs in a hole in a bank as the Belted Kingfisher does. There are no trees in that part of Assiniboia, which accounts for this little duck laying its twelve eggs at the end of a Gopher burrow, in a bank along the side of a small lake one mile north of Rush Lake. Another clutch of ten eggs was taken out of a hole in a tree at Oak Lake, Manitoba, May 25th, 1890. The eggs are more rounded than those of any other duck. The eggs of the Buffle-head are larger than those of the Teal and of a darker and warmer tint. (*Raine*.) A common migrant. It breeds at St. Clair Flats, Ont. (*W. Saunders*.)

MUSEUM SPECIMENS.

Eight specimens. Two taken in Toronto marsh, two at Indian Head, Assa., two at Edmonton, Alberta, and two at Agassiz, British Columbia.

LVII. **HARELDA** STEPHENS. 1824.154. **Old-squaw. Long-tailed Duck.**

Harelda hyemalis (LINN.) C. L. BREHM. 1855.

Common on the whole coast of Greenland, breeds also on the Parry Islands, and on the land westward of Davis Strait. (*Arct. Man.*) Very common along the whole Atlantic coast south of Greenland. Breeds in Ungava Bay (*Turner*), and doubtless north of Hudson Bay. Spreadborough noticed a pair off Cape Jones, in June, 1896. Payne found them very common in Prince of Wales Sound, Hudson Strait, reaching there about June 1st, 1885. Common in the Gulf and River St. Lawrence and westward to Lake Ontario, and occasionally as far west as London, Ont. Raine reports that in the winter of 1898 thousands of these ducks might have been seen any day in Toronto harbour.

Richardson, Ross and Macfarlane report it breeding along the Arctic coast, and Macfarlane says it breeds in large numbers on

the Anderson River. Turner, Nelson and Murdoch say that this is a common duck from the mouth of the Mackenzie westward all around the whole coast of Alaska. It winters along the entire Aleutian chain and down the Pacific coast of British Columbia, where Fannin says it is frequent in winter.

BREEDING NOTES.—This bird is a sea-duck, breeding northerly. A clutch of seven eggs in my collection was taken at the mouth of Mackenzie River June 20th, 1894. The nest was built on the ground under a small willow. (*Raine.*)

From the Yukon Delta along the coast, in each direction, their nests are almost invariably placed in close proximity to a pond or tide-creek—the sloping grassy bank of the ponds being a favorite situation. The earliest set of eggs secured by me numbered five and was taken on May 18th at St. Michael. From that date until the end of June fresh eggs may be taken, but the majority of the young are out by the last of that month. The parents always keep in the immediate neighbourhood of the nest and swim about in the nearest pond when the nest is approached. An unusual amount of dry grass-stems, and down plucked from the parent's breast, compose the nest, and if the eggs are left they are carefully hidden in the loose material. (*Nelson.*) During the breeding season, at Point Barrow, each pair seems to adopt a pool of its own, and drives out all intruders. They breed in considerable numbers all over the tundra, but the nests are scattered and not easy to find. The nest is always lined with down and generally near a pool. (*Murdoch.*) This species breeds in great numbers in the neighbourhood of Fort Anderson, along the Anderson River, on the Barren Grounds and the shores of the Arctic Sea. Considerably over one hundred nests were taken, and the eggs varied from five to seven, the latter being the maximum number recorded in any one instance. In its make the nest is very similar to that of *Dafila acuta*. From personal observation, also, I have come to the conclusion that the usual quantity of down taken from the duck's breast depends on the number of eggs in the set. (*Macfarlane.*) Several pairs breed each year on St. Paul Island, Behring Sea. One nest was found in 1897 beside a path leading to a well which was visited many times during the day. The female seldom left the nest when people passed along the path; indeed, no one else knew of the nest when I took five eggs from it. Unless the bird were looked

at she did not move. I several times passed within a foot of the nest without looking toward it, then walking back would look at the bird, when she rose immediately. (*J. M. Macoun.*) Before or about the time that the young are hatched and brought to the ponds by their mothers, the males have forsaken their usual haunts on these and have left for the open sea. This occurs early in August. The nests are placed almost anywhere on the flat ground near the ponds, usually on a little rise. On June 12th I found a nest and nine fresh eggs about forty feet from the village pond on St. Paul. Island. It was placed on a little hillock on the killing-ground. When flushed, about ten feet off, the bird flew directly to its mate. Leaving the eggs, I returned soon to find that she had been back, had covered them completely with down and dry short grass, and returned to the pond. June 17th, before 8 A.M., I found a nest—merely a few pieces of short grass-stems—containing one egg. Each morning thereafter at the same time I found another egg and more nest-material, including, from the second morning, an addition of black down, which was always placed on and around the eggs, not beneath, and which was evidently from the bird's own breast. (*William Palmer.*)

MUSEUM SPECIMENS.

Three specimens. One taken at Toronto by Mr. S. Herring, another in Hudson Bay by Dr. R. Bell, and the third at St. John, New Brunswick, by Mr. Chamberlain.

Our eggs of this species were taken at Whale River, Ungava Bay, Labrador, June 16th, 1896, by Mr. G. Boucher.

LVIII. **HISTRIONICUS** LESSON. 1828.155. **Harlequin Duck.**

Histrionicus histrionicus (LINN.) BOUCARD. 1876.

Observed on the east coast of Greenland; most common between Lat. 62° to 65° N. ; rarer to the northward. (*Arct. Man.*) Breeds at Godhavn, Vestbjord and other places in Greenland. (*Winge.*) A common summer migrant in Newfoundland, breeding on the borders of lakes and rivers. (*Reeks.*) A rare winter migrant around Nova Scotia. (*Downs.*) A rare spring and autumn visitant in New Brunswick. (*Chamberlain.*)

Abundant in Hudson Strait—breeds in Ungava Bay ; plentiful on the eastern coast of Labrador. (*Turner.*) This bird was most numerous during the month of June at Cape Prince of Wales, Hudson Strait. Apparently it does not breed, as it disappeared after that date. (*Payne.*) Occasional in Quebec and Ontario.

Richardson and Ross both speak of this being a rare bird toward the north and along the Arctic coast. Richardson says it frequents eddies under cascades and in rapid streams in the north. Dr. Coues found it breeding in turbulent streams entering Chief Mountain Lake (Waterton Lake), near the 49th parallel ; and the writer, in July, 1885, found a mother and a young brood in a very rapid stream entering Kicking Horse Lake at Hector, Rocky Mountains, on the Canadian Pacific Railway, at an altitude of 5,000 feet. Spreadborough found this species breeding at Canmore, near Banff, Rocky Mountains, in June, 1891. A pair was shot, and others seen. During the summer of 1898, this species was seen in many of the mountain tributaries of the Athabasca by the same observer. Both Nelson and Turner mention this bird as very common in the bays and along the coasts of Alaska, but it does not breed on the coast. Nelson says it breeds on the clear streams of the interior, which agrees with our knowledge further to the south. Fannin says : "An abundant resident ; breeds along the creeks close to the salt water at Burrard Inlet and Howe Sound, and also in the interior of British Columbia." Brooks says a few breed in the valley of the Lower Fraser.

BREEDING NOTES.—This species breeds at the mouth of the Mackenzie River, for one of my collectors sent me eight eggs with the skin of the parent bird. The nest was found on June 19th, 1894. It was built on a high bank, near some ice-floes, under sticks piled up by overflow water in the spring. One of the eggs in the nest is a runt, one-third the usual size. The eggs of this bird have seldom been obtained in North America. It breeds in Iceland, and lays from six to eight eggs, seldom more. They are similar to those of the Gadwell and Baldpate, but average larger, and are of a deeper buff tint. (*Raine.*)

The nest and eggs of this species were not procured by me, and the only nest I ever saw was near Iliuliuk village, on Unalaska

Island. Two immense blocks of rocks had become detached from the cliff above, and when they fell their edges formed a hollow place beneath. Under these rocks I discovered a deserted nest, which the native who was with me asserted was that of a bird of this species. The form was similar to that of the nest of *H. hyemalis*, and in fact so closely resembled it that I persisted in it being of this bird until the native asked me if I did not know that the "Old Squaw" did not build in such places. (*Turner.*)

MUSEUM SPECIMENS.

Two specimens. One procured in Hudson Bay by Dr. R. Bell; the other shot at Banff, Rocky Mountains, by Mr. W. Spreadborough.

LIV. **CAMPTOLAIMUS** GRAY. 1841.156. **Labrador Duck. Pied Duck.**

Camptolaimus labradorius (GMEL.) GRAY. 1841.

Now extinct. Formerly abundant on the Labrador coast. Mr. William Dutcher, in an able paper published in *The Auk*, for January, 1894, shows, although 1852 has been given as the date when the last specimen of this species was killed, that, from that date to 1875, occasional specimens were taken and vouched for as being seen in the flesh. He can find no trace of the bird being seen since 1875 so that he reluctantly concludes it is extinct.

LV. **ENICONETTA** GRAY. 1840.157. **Steller's Duck.**

Eniconetta stelleri (PALL.) GRAY. 1840.

The coasts and islands of Behring Sea may be given as the eastern range of this duck. Westward from there it breeds in tens of thousands on the coast of Siberia. Throughout the Aleutian chain it is a common resident, very abundant in winter, but less common in summer. It also breeds upon St. Lawrence Island and a nest has been taken on Unalaska. (*Nelson.*) This duck is rare at St. Michael; on the southern and eastern shores of Bristol Bay and the northern shores of Alaska it is plentiful. Among the Aleutian Islands it is rarely seen in summer, in winter

it abounds at Unalaska. (*Turner.*) This beautiful little duck is far from a rare bird during the late spring and summer at Point Barrow and vicinity. Their breeding-ground appears to be some distance off, as they leave to breed about the end of June. (*Murdoch.*)

BREEDING NOTES.—Dall says the pairing season of this species, in Alaska, commences about May 1st, and thence through the breeding season they are found in pairs. He also states that if a nest is visited it is abandoned at once. He found a nest on May 18th, 1872, on a flat part of a small island near Unalaska. It was built between two tussocks of dry grass, and the depression was carefully lined with the same material. The nest was entirely concealed by overhanging grasses, and was revealed only by the bird flying out at his feet. The nest contained a single egg. (*Nelson.*)

MUSEUM SPECIMENS.

One specimen shot on Kadiak Island, on the Alaskan coast, September, 1894.

LX: **ARCTONETTA** GRAY. 1855.

158. **Spectacled Eider.**

Arctonetta fischeri (BRANDT) BLAKISTON. 1863.

The Spectacled Eider has until very recently been credited with a very restricted range on the Behring Sea coast of Alaska. My own observations show this species to be strictly limited to the salt-marshes bordering the east coast of Behring Sea, thus favoring the shallow, muddy, coast waters, which appear to be distasteful to Steller's Duck. (*Nelson.*) This bird is common in the vicinity of St Michael, where it arrives early in May. Along the coast of Bristol Bay it is very abundant; it occurs among all the Aleutian Islands, where it breeds and is a constant resident, but extremely shy. (*Turner.*) This bird was found to be a regular, though rather rare, summer visitor at Point Barrow. It evidently breeds not far from the station, as a female was taken in June, 1883, with an egg in the oviduct just ready for laying. (*Murdoch.*)

BREEDING NOTES.—In the vicinity of St. Michael this species rarely arrives before the 15th of May. Very soon after reaching

their destination the flocks disband and the birds quietly pair, but the first eggs are rarely laid earlier than the first of June. Most of my eggs were taken fresh between the 10th and 20th of this month, and I obtained the young just out of the egg on July 23rd. When first paired the birds choose a pond in a marsh, and are henceforth found in its vicinity until the young are hatched. When the grass commences to show green and the snow and ice are nearly gone, these ducks choose some dry, grassy spot close to a pond, and making a slight hollow with a warm lining of grass, they commence the duties of the season, although the other denizens of the marsh are already well on with their house-keeping. One nest found on June 15th was on a bed of dry grass on the border of the pond, within a foot of the water, and when the female flew off, the single egg could be seen 20 yards away. Tussocks of dry grass, small islands in ponds, and knolls close to the water's edge are all chosen as nesting places, and as a rule the nest is well concealed by the dry grass standing about. The eggs usually number from five to eight or nine in a set and are small for the size of the bird. In colour they are of a light olive-drab. (*Nelson.*)

LXI. **SOMATERIA** LEACH. 1819.

159. **Greenland Eider. Northern Eider.**

Somateria mollissima borealis C. L. BREHM. 1830.

Common along all the coasts of Greenland; northern limit unknown. (*Arct. Man.*) A resident at Ivigtut and very abundant. (*Hagerup.*) Abundant in Hudson Strait; breeds in Ungava Bay. (*Packard.*)

160. **American Eider.**

Somateria dresseri SHARPE. 1871.

The most abundant species of duck in Newfoundland, but rapidly growing scarce owing to the destruction of eggs. (*Reeks.*) Common. Breeds on Isle Haut, Bay of Fundy. (*Downs.*) Common in winter on the south coast of Labrador, in the Gulf of St. Lawrence, and up the St. Lawrence to Quebec. (*Dionne.*) Eider Ducks in immature plumage, which I take to be this species, have been occasionally shot at Montreal in the fall. (*Wintle.*) Common in Hudson Strait, and seen at York Factory and Churchill

and on the East Main coast of Hudson Bay. (*Dr. R. Bell.*) Common from a short distance north of Moose Factory to Richmond Gulf, June, 1896. (*Spreadborough.*) Casual on the Ottawa River. Mr. G. R. White, on November 7th, 1889, after a strong easterly gale, shot a young male of this species on the Ottawa River, near the city. Mr. J. H. Fleming, of Toronto, doubts the occurrence of this bird at Toronto. All specimens seen by him are King Eiders.

BREEDING NOTES.—Mr. Fraser found the Eider Duck breeding on the small islands along the coast of Labrador. The nest was built in a hollow among soft, short grass, or at the foot of a rock where it was sheltered from the wind. It was composed of grass, and lined with slate-coloured down from the breast of the bird. (*McIlwraith.*) Breeding on rocky islands in Richmond Gulf, Hudson Bay. Nest composed of weeds and grass, lined with down from the bird's breast. (*Spreadborough.*) Breeds abundantly along the Labrador coast. Sets of eggs in my collection were taken July 9th, 1896, in Ungava Bay. (*Raine.*) Breeds in great numbers on sandy islands off the mouth of George River, James Bay. (*J. M. Macoun.*)

MUSEUM SPECIMENS.

Two specimens, both procured by Dr. R. Bell, at Fort Churchill, Hudson Bay.

There are 25 eggs of this species in our collection. Two sets were taken in James Bay, June 16th, 1896, by Mr. W. Spreadborough; four other sets were taken at the mouth of Whale River, Ungava Bay, on the same date, by Mr. G. Boucher.

161 **Pacific Eider.**

Somateria v-nigra GRAY. 1855.

Along the coast of the North Pacific, both shores of the Aleutian Islands, and all the islands of Behring Sea and the coast of the adjoining Arctic Ocean to the northern limit of the mainland, is the broad area over which the breeding range of this bird extends. (*Nelson.*) This bird is to be found in all parts of Alaska that have come under my observation. (*Turner.*)

A male specimen of this species was shot by the writer at Fort Resolution on Great Slave Lake in 1858, and a female was obtained by Mr. Alexander Mackenzie in 1861 at the same place. (*Ross.*) This interesting bird breeds in immense numbers on the

shores of Franklin Bay; it is also very abundant on the coast and islands of Liverpool Bay. (*Macfarlane*.) This species is quite common at Point Barrow during the migrations, but does not breed there, going farther to the eastward. (*Murdoch*.)

BREEDING NOTES.—At St. Michael this species breeds in considerable numbers, and there prefers the open tundra for a nesting place. A nest was found with eleven eggs on the hillside about half a mile back of "the redoubt." The nest which was made in a mossy situation, consisted of a few blades of grass and was well lined with sooty-coloured down from the abdomen of the bird itself. Along the Aleutian Islands this bird prefers the steep slopes heavily clothed with rank grasses, such as wild rye (*Elymus*), which grows in huge tussocks, among which the nest is hidden. A slight depression is scratched out; the eggs are placed on the bare ground, the down being used as a cover for the eggs when the parent is absent from the nest, it is plucked from the breast for that purpose only, and increases in amount as the increased complement of eggs demands a greater amount of covering. The eggs are never placed on the down. The nest, when first scratched, is usually left to dry-out several days before it is used, as the bare spots were seen sometimes a week before an egg was deposited. With the first egg, only a little down is found in the nest, and it will be replaced two or three times if removed. When the nest is full of eggs, and they, with all the down, are removed, the bird seeks some other locality for again laying fewer eggs, generally not more than five for the second nest. (*Turner*.)

This bird breeds in immense numbers on the coast and islands of Liverpool Bay. The nest is usually a shallow cavity in the ground, more or less plentifully lined with down. The eggs are generally five, and but rarely six or seven, in number, of a pale sea-green colour with a tinge of olive. We found some nests on a sloping bank at a distance of three or four hundred feet from the sea. Others were found on the mainland, but the bulk of those secured by us were obtained from sandy islets in the bays. (*Macfarlane*.)

162. **King Eider.**

Somateria spectabilis (LINN.) LEACH. 1819.

Said not to breed further south than Lat. 67°, but in some numbers at Lat. 73°; also on the east coast of Greenland and on

the western shores of Davis Strait ; breeds abundantly on the Parry Islands. (*Arct. Man.*) Abundant on the Atlantic coast of Labrador, where it is reported to breed ; nest and eggs found near Mingan. (*Packard.*) Common along the coast of Newfoundland and a rare winter visitant along the coasts of Nova Scotia and New Brunswick. One specimen taken on Lake Mistassini in May 1885, by Mr. J. M. Macoun. Arrives in Prince of Wales Sound, Hudson Strait, about May 5th and begins to breed as soon as the ice is off the small islands. (*Payne.*) A single specimen taken in James Bay, June, 1896, by Mr. A. P. Low.

Occasional specimens, of young birds chiefly, are taken on Lake Ontario and Lake Erie. (*McIlwraith.*) An adult male of this species was taken near Toronto, Ont., in November, 1895, by Mr. C. W. Nash.

Occasionally noted in the interior of Alaska, where Dall found a dead specimen. During the months of July and August it was found in large numbers near the ice-fringed coast of Alaska from Icy Cape to Point Barrow and thence eastward. It is also common in Behring Strait and on St. Lawrence Island and to the northwest of the strait. (*Nelson.*) This is by all means the most abundant bird at Point Barrow. They appear early in spring at a distance from shore and pass steadily and swiftly past Cape Smythe to the northeast, following the coast. It is probable that they turn east after passing the point, as they return from the east in the autumn. (*Murdoch.*) An immature male was shot at Calgary, Alberta, on November 4th, 1894 ; it was in company with another described as very white. (*Dippie.*)

BREEDING NOTES.—This species breeds sparingly at St. Michael. I never obtained its nest, but saw the birds under circumstances that cause me to assert that it breeds there. (*Turner.*)

At Point Barrow the majority of this species are paired by the middle of May, and the flocks are made up of pairs flying alternately. Early in June straggling pairs and small parties settle about the tundra pools and breed sparingly in the neighborhood of the station. (*Murdoch.*)

This species is tolerably common in Franklin Bay, where fully 200 eggs were procured between 1862-1865. The nest is similar to that of the Pacific Eider and when not disturbed the female lays from four to six eggs. In colour they are generally of a light shade of olive-gray, and some are of a grayish-green. (*Macfarlane.*)

MUSEUM SPECIMENS.

One specimen procured at York Factory, Hudson Bay, by Dr. R. Bell. Of this species we have seven eggs. Three of these were taken at Cape Prince of Wales, Hudson Strait, in 1885, by Mr. F. F. Payne, one on Cary Island, Baffin Bay, and a set of three, one large and two small, taken at Nachvak, Labrador, by Mr. G. Forde, in 1897.

LXII. **OIDEMIA** FLEMING. 1822.163. **American Scoter.***Oidemia americana* SWAINS. 1831.

Obtained at the mouth of the Koaksoak River. Abundant in Hudson Strait and on the eastern shore of Labrador, where it is reported to breed sparingly. (*Turner.*) Common throughout the year around Newfoundland. (*Reeks.*) A common migrant in Nova Scotia. (*Downs.*) An uncommon spring and autumn migrant at St. John, New Brunswick. (*Chamberlain.*) Passed north of Lake Mistassini, Northern Quebec, May 15th, 1885. (*J. M. Macoun.*) Common in June, 1896, from Cape Jones to Richmond Gulf, Hudson Bay. (*Spreadborough.*) Fort Churchill, Hudson Bay. (*Wright.*) Not uncommon on the Gulf of St. Lawrence and up the St. Lawrence and Ottawa rivers.

Casual on Lake Ontario and lakes Huron and Erie. It is not rare in Manitoba, but never breeds, passing to the north for that purpose. We have no detailed account of its breeding-grounds in the east but believe they are around Hudson Bay. Richardson says this species frequents Hudson Bay, breeding between the 50th and 60th parallels. Macfarlane says it undoubtedly breeds in the Anderson River country, although he never received any well authenticated eggs.

Along the Alaskan shores of Behring Sea and Kotzebue Sound these Scoters are abundant summer residents. They breed abundantly about the mouth of the Yukon and other suitable localities around the various islands. (*Nelson.*) This species breeds at St. Michael, but more abundantly further up the coast ; among the Aleutian Islands it is to be found throughout the year. (*Turner.*) It is not a common visitor in British Columbia, but it

has been found on the coast and in the interior by Fannin, who saw a small flock on May 10th, 1891, at 108-mile House on the Cariboo Road.

BREEDING NOTES.—At the mouth of the Yukon, Dall found a nest of this species in a bunch of willows on a small island, on June 17th. It contained two white and rather large eggs, and was well lined with dry grass, leaves, moss and feathers. At St. Michael these ducks are never seen until the ice begins to break up off shore. May 16th is about the earliest date of arrival I have recorded. The mating is quickly accomplished, and a nesting-site chosen on the border of some pond. The spot is artfully hidden in the standing grass, and the eggs, if left by the parent, are carefully covered with grass and moss. As the set of eggs is completed, the male gradually loses interest in the female, and deserts her to join great flocks of his kind along the sea-shore, usually keeping in the vicinity of a bay, an inlet, or the mouth of some large stream. (*Nelson.*)

MUSEUM SPECIMENS.

Two specimens, both taken near Ottawa, Ont., in September, 1897.

164. **Velvet Scoter.**

Oidemia fusca (LINN.) STEPH. 1824.

Accidental (?) in Greenland. (*A. O. U. List.*) Collected in South Greenland and now in Copenhagen Museum. (*Winge.*)

165. **White-winged Scoter.**

Oidemia deglandi BONAP. 1850.

Common around Newfoundland and may breed; a winter migrant around Nova Scotia and a migrant in spring and autumn in the Bay of Fundy. Flocks were seen in July 1888 off the gulf coast of Prince Edward Island, and Bishop speaks of a flock remaining for weeks off Grindstone Island, Magdalen Islands, in 1887. Reported by Audubon to breed on the east coast of Labrador.

Abundant from Moose Factory to Richmond Gulf, Hudson Bay, June 1896. (*Spreadborough.*) It is common on the St. Lawrence and frequent on the Ottawa River, and not a rare migrant on Lake Ontario and Lake Erie.

A common migrant in Manitoba and stays so late that undoubtedly some breed near the larger lakes. First seen at Deep Lake, Indian Head, Assa., May 13th, 1892; common by June 5th; shot a female June 22nd that had an egg in her oviduct nearly ready to be laid; must breed there as I saw them on Deep Lake every day up to July 1st, when I left. Common on Lake Ste. Anne, north of Edmonton, Alta., June 9, 1898. (*Spreadborough.*) There can be no doubt that it breeds all the way north to Hudson Bay, as it has been seen on all the large lakes in summer.

Breeds throughout the districts around Fort Anderson (*Macfarlane*) and on the Arctic coast towards the mouth of the Mackenzie. (*Richardson.*)

This species is less common than the American Scoter or the Surf Scoter. It breeds in very small numbers about the mouth of the Yukon, and in other localities; at St. Michael it is not rare and becomes more common in the autumn. (*Nelson.*) I found this Scoter to be rare in all localities visited by me. (*Turner.*)

Abundant resident in British Columbia; winters on the coast, and found during the summer both on the coast and in the interior of the mainland. I have no record of its breeding place. (*Fannin.*) Remains all winter on Lake Okanagan, B.C. (*Brooks.*)

A small flock of this species was seen by the writer on Upper Arrow Lake, Columbia River, June 16th, 1890, and a few pairs were probably breeding in the vicinity; others were seen at Banff, Alberta, on May 8th, 1891.

BBEEDING NOTES.—Audubon found this species breeding in Labrador. The nests were built by the sides of small lakes, two or three miles distant from the sea, and usually placed under low bushes. They were formed of twigs, mosses and various plants matted together, and were large and almost flat, several inches thick, and lined with feathers. (*McIlwraith.*) This species breeds in both Manitoba and Alberta. On June 16th, 1896, I shot a female at Burnt Lake, Alberta, which contained a fully developed egg. (*Dippie.*)

On June 26th, 1893, Mr. G. F. Dippie and myself found a nest containing nine eggs on an island at the south end of Lake Manitoba. The nest was built between loose boulders and consisted

of a hollow in the sand lined abundantly with dark down. The eggs were very large and of a deep, rich, buff colour. The bird sat very close upon the nest and did not fly up until I almost trod upon her. It appears to be a late breeder, nesting late in June on the islands of lakes Manitoba and Winnipeg. Mr. Neuman sent me an egg of this bird which he took from a female he had shot at Swan Lake, Northern Alberta, on June 25th, 1897. (*Raine.*)

It breeds in large numbers throughout the region under review, as several nests were found in the "Barrens," some near the fort, and a few on the Lower Anderson and in other parts of the wooded sections; these were always depressions in the ground, lined with down, feathers and dry grasses, and placed contiguous to ponds or sheets of fresh water, frequently amid clumps of small spruce or dwarf willow and fairly well concealed from view. The number of eggs found in a nest varied between five and eight. (*Macfarlane.*)

MUSEUM SPECIMENS.

Two specimens, one taken in Toronto marsh and the other shot near Indian Head, Assa., May 1892, by Mr. W. Spreadborough.

166. Surf Scoter. Sea Coot.

Oidemia prespicillata (LINN.) STEPH. 1824.

A few specimens obtained from the Danish settlements in Greenland. (*Arct. Man.*) Breeding sparingly along the coasts of Labrador. (*Turner.*) Common along the coast of Newfoundland, especially during the breeding season. (*Reeks.*) Migrant along the coasts of Nova Scotia and New Brunswick; also in the Gulf and River St. Lawrence. It is a rare migrant near Ottawa, Ont., but more common on Lake Ontario.

Rare in Hudson Strait, but quite common from Cape Jones to Richmond Gulf in Hudson Bay, June, 1896. (*Spreadborough.*) This is a common species on the arctic coast, and breeds abundantly both there and on the "Barrens" along the Anderson River, near Fort Anderson. (*Macfarlane.*)

Abundant everywhere on the coast waters of British Columbia. (*Fannin.*) Remains on Lake Okanagan throughout the winter. (*Brooks.*) Common about Burrard Inlet during the latter part of April, 1889. (*Streator.*)

Nelson and Turner both report this as a very common duck in Alaska, but seem to know little of its breeding habits. Its great breeding-grounds are very likely the "tundra" bordering the arctic coast southwest of Point Barrow.

BREEDING NOTES.—This species breeds commonly on the marshes along the Yukon, even above Fort Yukon. The main breeding-ground of this species remains unknown to me, for although females and young were not rare in summer, yet they were not numerous enough to account for the vast number of males to be found. From the fact that immense flocks of the males are constantly seen off the coast in summer it is evident that the females assume the duty of incubating the eggs and rearing the young. (*Nelson.*) The remarks made under *O. deglandi* happen to be, in almost every respect, equally applicable to the present species—the only difference noted being that generally less hay and feathers was observed in the composition of its' nest. (*Macfarlane.*) Audubon observed this species breeding in Labrador. He found a nest in a freshwater marsh, among the tall grass and weeds. It was composed entirely of withered weeds, lined with the down of the birds, and contained five eggs of a pale-yellowish or cream colour. (*McIlwraith.*)

MUSEUM SPECIMENS.

There are two in the collection, one taken in Hudson Bay, the other at Comox, Vancouver Island, June 10th, 1893, by Mr. W. Spreadborough.

LXIII. **ERISMATURA** BONAPARTE. 1832.

167. **Ruddy Duck.**

Erismatura jamaicensis (GMEL. SALVAD. 1896.

A rare and uncertain visitor on the Atlantic coast, though reported from Newfoundland, Nova Scotia and New Brunswick. More common in Quebec, and according to McIlwraith, generally distributed in Ontario. Abundant migrant near London. A few pairs breed in the marshes at St. Clair Flats. (*Saunders & Morden.*)

This is a common summer resident in Manitoba and Assiniboia, breeding in all the deep and reedy ponds. Stragglers have been taken on Hudson Bay, and Richardson says it breeds as far north as Lat. 58°; Ross says that it goes north to Great Slave Lake, but

is rare. It is a regular summer resident in the interior of British Columbia, having been found breeding in the lakes along the Cariboo road by Fannin in 1891. Brooks says it is a rare autumn visitor in the Lower Fraser valley.

BREEDING NOTES.—Breeds on Lake Manitoba, and on Buffalo Lake, Burnt Lake and many others in Alberta. On June 14th, 1896, took a nest with two eggs and one egg of the Canvas-back. (*Dippie*.) I have never found the nests of this species except in reeds and tall grass growing in water on the margin of lakes and sloughs. Nest rather bulky, made of grass. Saw a female with four young, about a week old, on June 21st, 1896, in Northern Labrador. This species was found breeding sparingly from Richmond Gulf to Ungava (*Spreadborough*.) I found this species breeding on Shoal Lake, Manitoba, June 8th, 1894. (*Raine*.)

This species lays a beautiful, and for the size of the duck, a large egg, and lays a great number, unless two or more lay in the same nest, which is probably the case. It was common in 1894 at Crane Lake. The nest was usually amongst "cat-tails" (*Typha latifolia*), while the Scaups and Red-heads preferred to breed among rushes (*Scirpus lacustris*.) One nest was taken containing seventeen fresh eggs, fourteen of which belonged to the Ruddy Duck, two to the Canvas-back and one to the Red-head. Bluish-green and creamy white eggs in the same nest made quite a contrast.

MUSEUM SPECIMENS.

Two taken on the Toronto marsh by Mr. S. Herring. Eight eggs taken at Crane Lake, Assa., June 15th, 1894.

LXIV. CHEN BOIE. 1822.

169. Lesser Snow Goose.

Chen hyperborea (PALL.) BOIE. 1822.

This handsome goose is uncommon on the coast of Norton Sound and about the Yukon mouth. It arrives in spring, between the 5th and 15th of May, according to the season, and after remaining a short time passes north. (*Nelson*.) This species occurs only sparingly in the vicinity of St. Michael, and remains but a few days till it goes farther north. I am not aware that it breeds south of the arctic circle. (*Turner*.) All the Snow Geese

taken at Point Barrow were of this species. They are not at all common, but are occasionally met with during the spring migrations. (*Murdoch.*) A winter resident on the coast of British Columbia. Tolerably abundant. During some winters large numbers congregate off the mouth of Fraser River. (*Fannin.*) The rarest of the geese in the Fraser valley. (*Brooks.*) Have a specimen shot at Calgary, Alberta, in the spring of 1893. (*Dippie.*)

BREEDING NOTES.—These birds seek a nesting-ground along the course of the Lower Anderson River and the neighbouring region along the arctic coast. (*Nelson.*) The Eskimos assured us that large numbers of "White Waveys" annually breed on the shores and islands of Esquimaux Lake and Liverpool Bay, but strange to say we never observed any on the Barren Grounds proper or on the shores of Franklin Bay. The Eskimos brought in to Fort Anderson about one hundred eggs, which they claimed to have discovered among the marshy flats and sandy islets on the coasts of Esquimaux Lake. (*Macfarlane.*)

MUSEUM SPECIMEN.

One fine specimen, shot at Portage la Prairie, Manitoba, April 28th, 1897.

169a. **Greater Snow Goose.**

Chen hyperborea nivalis (FORST.) RIDGW. 1884.

A few young birds are taken occasionally in Greenland, in Newfoundland and Nova Scotia; accidental in New Brunswick. The same may be said of its occurrence in Quebec and Ontario. A very abundant migrant in Manitoba and eastern Assiniboia in the spring. In the autumn it migrates farther west and goes south, chiefly through Alberta and western Assiniboia.

BREEDING NOTES.—The remarks made by me under *Chen hyperborea* belong in part to this species, as at the time the eggs were collected the forms were not separated. (*Macfarlane.*) Breeding in immense numbers in the Barren Grounds along the arctic coast. (*Richardson.*)

MUSEUM SPECIMENS.

One specimen, shot on Black Island, Lake Winnipeg, by Mr. J. B. Tyrrell. A set of three eggs taken on one of the Twin Islands, James Bay in 1898, received from Mr. A. P. Low.

169.1. **Blue Goose.***Chen caerulescens* (LINN.) GUNDL. 1865-66.

Two females and a male of this species were shot 11th October, 1886, within a few miles of Ottawa, Ont., by Mr. G. R. White. The bills and feet were black instead of being lake-red as in Dr. Coues description, but the birds correspond with it in every other particular. (*Ott. Nat.*) A typical specimen was shot by Mr. A. Ralph on the River Thames, 16th November, 1888. As one foot was missing and the tissues completely healed over, the bird was probably an adult and certainly agrees in every particular with the description given in Ridgway's Manual. The bird has been preserved and is in London, Ont. (*R. Elliott.*) A transient visitor in Manitoba. (*Seton-Thompson.*)

MUSEUM SPECIMEN.

One specimen bought with the Holman collection in 1885.

170. **Ross's Snowy Goose.***Chen rossii* (CASSIN) RIDGW. 1880.

According to Cassin this is the "Horned Wavey," described by Hearne, in 1795. After the description, Hearne says:—

"This species is very scarce at Churchill River, and I believe is never found at any of the southern settlements, but about two or three hundred miles to the northwest of Churchill I have seen them in as large flocks as the Common Wavey or Snow Goose."

Nothing more was heard of this species until Mr. Robert Kennicott and Mr. Bernard R. Ross of the Hudson Bay Company sent specimens taken on Great Slave Lake to the Smithsonian Institution and Mr. Cassin recognized it as a new species and named it after Mr. Ross.

This goose has been taken at the mouth of the Fraser River, and also on Shuswap Lake, and on Kuper Island, B.C., but I am inclined to think that its occurrence here is rare. (*Fannin.*)

MUSEUM SPECIMENS.

One procured at Fort Churchill, Hudson Bay, by Dr. R. Bell.

LXV. **ANSER** BRISSON. 1760.171. **White-fronted Goose.***Anser albifrons* (GMEL.) BECHST. 1809.Casual in Eastern Greenland? (*A. O. U. List.*)171a. **American White-fronted Goose. Laughing Goose.***Anser albifrons gambeli* (HARTL.) COUES. 1872.

Not rare in fresh water between Lat. 66° and 68° 30' N. in West Greenland. (*Arct. Man.*) Very rare around Newfoundland. (*Reeks.*) This species has been noted at Montreal and one was shot at Lac Jacques Cartier, north of Quebec, in the autumn of 1870. (*Dionne.*) A friend and myself came across three individuals of this species on the Isle de la Paix, Lake St. Louis, near Montreal, but failed to secure specimens. (*Wintle.*) Only a casual visitor in Ontario.

From the middle of April, or a week later, to the middle of May this species is quite common in western Manitoba and Eastern Assiniboia. It is then passing to its breeding-places which Richardson says are in the wooded districts, skirting the Mackenzie River to the north of the 67th parallel, and the islands in the Arctic Sea. Macfarlane found it breeding on Franklin Bay, Murdoch at Point Barrow, Dall all along the Yukon, and Turner in its delta, Nelson along the Arctic coast and Fannin says it breeds on the mainland of British Columbia and that young fledglings have been taken on Cowichan Lake, Vancouver Island. The breeding range of this bird is therefore the whole northwestern part of the continent and its peculiar spring migration accounted for.

BREEDING NOTES.—A clutch of four eggs in my collection was taken on an island in Mackenzie Bay, west of the mouth of Mackenzie River, June 5th, 1895. The nest consisted of a hollow in the sand lined with down. (*Raine.*) When the White-fronted Goose first arrives in the north, the lakes are but just beginning to open and the ground is still largely covered with snow. The last year's heath-berries afford them sustenance, in common with most of the other wild-fowl, at this season. The mating season is quickly ended, however, and on May 27th, 1879, I found their eggs at the Yukon mouth. From this date on, until

the middle of June, fresh eggs may be found, but very soon after the latter date downy young begin to appear. These geese choose for a nesting place the grassy border of a small lakelet, a knoll grown over with moss and grass, or even a flat sparingly covered with grass. Along the Yukon, Dall found them breeding gregariously, depositing their eggs in a hollow scooped out of the sand. At the Yukon mouth and St. Michael they were found breeding in scattered pairs over the flat country. Every one of the nests examined by me, in these places, had a slight lining of grass or moss, gathered by the parent, and upon this the first egg was laid; as the complement is approached, the female always plucks down and feathers from her breast until, when incubation commences, the eggs rest in a soft warm bed. The eggs vary considerably in size and shape. Some are decidedly elongated, others are decidedly oval. In colour they are dull-white, but ordinarily present a dirty-brown appearance from being stained in the nest. (*Nelson.*)

This species arrives at Point Barrow, Alaska, about the middle of May, and for a couple of weeks is generally found in small parties along the lagoons and the small pools which have opened along the crown of the beach. As the snow cleared off—early in June—they scattered in pairs over the tundra, occasionally feeding together in small parties of half a dozen or more. The eggs are always laid in the black muddy tundra, often on top of a small knoll. The nest is lined with tundra moss and down. The number of eggs appears to be subject to considerable variation, as we found sets of four, six and seven, all well advanced in incubation. The last egg is laid generally in the middle of the nest, and may be recognized by its white shell unless incubation is far advanced, the eggs being soiled by the birds coming on and off the nest. (*Murdoch.*)

A considerable number of the nests of this "Gray Wavey" were discovered in the vicinity of fresh-water lakes in timber tracts as well as along the Lower Anderson River to the sea. Some were taken on the Arctic coast, and several, also, on islands and islets in Franklin Bay. In all, about one hundred nests were secured. The nest, which was always a mere shallow cavity in the ground, in every observed and reported instance had more or less of a lining of hay, feathers and down, while the maximum number of eggs in no case exceeded seven. (*Macfarlane.*)

MUSEUM SPECIMEN.

Our representative of this species was shot at the Red Deer River, Alberta, September 12th, 1896, by Mr. Dippie.

171b. **Bean Goose.**

Anser fabalis (LATH.) SALVAD. 1895.

Accidental in Greenland. (*Winge.*)

LXVI. **BRANTA** SCOPOLI. 1769.172. **Canada Goose.**

Branta canadensis (LINN.) BANNISTER. 1870.

A common migrant in Nova Scotia and New Brunswick. It breeds in Newfoundland, in Labrador, in northern Quebec, and on the island of Anticosti, where the writer saw flocks of old and young feeding in bogs on the berries of *Empetrum nigrum* in August, 1883.

This species is a migrant as far as known in Ontario, but westward it breeds from Manitoba and the prairie region to the Pacific coast. A few pairs breed in almost all the prairie lakes having islands in them and where the water on the outer fringe of a marsh is over 30 inches deep. It was found breeding, by Spreadborough, at Henry House, Athabasca Pass, 1898. Found breeding in the marshes along the Bow River at Banff in 1891, in the marshes of the Columbia below Golden in 1885 and near Revelstoke, B.C., in 1890. Farther to the north it becomes more abundant and breeds in greater numbers throughout the whole wooded country. It is not common in Alaska but breeds in the interior and throughout British Columbia. Brooks reports that a flock of Canada Geese winters every year on Shuswap Lake, B.C.

This species breeds throughout the entire wooded region of the Mackenzie River basin. Nests were discovered in the vicinity of Fort Anderson and to the borders of the forest on the east and west sides of the river of that name. None were met with on the "Barrens" nor on the Arctic coast. Several deserted hawk's nests were found occupied by incubating females. (*Macfarlane.*)

BREEDING NOTES.—Have seen several nests, some on the ground and others upon old musk-rat houses. Nests made of grass lined with down. Breeds early; have seen the young the first week in June, but also found eggs perfectly fresh June 9th, 1894. (*Spreadborough.*) A nest with six eggs, incubated about one week, was found near the Red Deer River, Alberta, May 11th, 1888. Between Athabasca Landing and Fort McMurray, two females with young about a week old were seen June 11th. (*J. M. Macoun.*)

Breeds in Assiniboia and Alberta and is one of the earliest breeders. Its eggs are often taken and put under fowls to hatch. I have seen broods of young Canada geese that were hatched and reared by turkeys at Rush Lake. When the first clutch is taken the bird lays another, sometimes on the same island. On May 25th, 1893, I found seven eggs in a nest built on an island in a small lake north of Rush Lake. A Canada Goose had nested on this island for several years. It is a remarkable fact that in Alberta this goose often lays its eggs in the nests of Buzzards. Mr. Neuman sent me a set of five eggs he took from a Buzzard's nest on April 25th, 1896. The nest was built in a dead cottonwood tree 45 feet from the ground and the bird was flushed off the nest and shot. I have a photograph of the nest. (*Raine.*)

This species is one of the earliest to arrive in the Northwest. It was first seen in 1894 at Medicine Hat on April 7th, by Spreadborough, and was common by the 16th. It seems to have no fixed place to breed as it has been found nesting on old musk-rat houses in marshes, on masses of dead reeds, in Buzzards' nests on low trees along streams, and in two instances it nested in trees at least forty feet from the ground. In one case the nest was in that of a Fish Hawk, in the other in an old nest of the Bald eagle. Also breeding on rocks along Milk River, Alberta.

MUSEUM SPECIMENS.

One fine specimen taken at Indian Head, Assa., in May 1894, and another purchased with the Holman collection.

Four eggs taken at Crane Lake, June 9th, 1894. Two taken on Whale River, Ungava Bay, Labrador, June 11th, 1896, by Mr. G. Boucher.

172a. **Hutchin's Goose.**

Branta canadensis hutchinsii (RICH.) COUES. 1872.

This species, in company with the Brant and Snowy Goose, arrived in great numbers on Prince of Wales Sound, Hudson Strait, September 6th, 1885, but was gone in a few days. (*Payne.*)

Common in spring and fall in Manitoba. (*Seton-Thompson.*) First seen in small flocks at Deep Lake, Indian Head, Assa., April 29th; it never became common and all were gone by May 15th. (*Spreadborough.*) This species is very common in Alaska, breeding abundantly in the Yukon Delta and northward. Fannin and Brooks report it as an abundant spring and fall migrant, wintering on the coast of British Columbia. The former claims it as a resident, and if so it breeds.

This species is very common around the shores and on the islands of the Arctic Sea, and does not frequent the fresh-water lakes of the interior in summer. (*Richardson.*)

BREEDING NOTES.—Over fifty nests of this species were found on the Lower Anderson River as well as on the shores and islands of the Arctic Sea; almost all were placed on the earth and composed of dry hay, feathers and down. The usual number of eggs was six. (*Macfarlane.*)

Dall says they choose, in Alaska, the hill-tops for their breeding places. He secured eggs on June 15th and the unfledged young July 10th. The nesting-habits, notes, and general mode of life of Hutchin's Goose are identical with those of *B. minima*, so they need not be specially referred to here. (*Nelson.*)

MUSEUM SPECIMENS.

Two, procured by Dr. R. Bell at Fort Churchill, Hudson Bay. One egg obtained in Repulse Bay, Hudson Bay.

172b. **White-cheeked Goose.**

Branta canadensis occidentalis (BAIRD) RIDGW. 1885.

During my residence on the coast of Behring Sea this bird was not seen and as hundreds of the two other related species were examined both at St. Michael and the Yukon mouth, it appears evident that it is found in Alaska as a straggler or not at all.

Dall records specimens taken at Sitka. (*Nelson.*) Much rarer than the Canada Goose in the Lower Fraser valley. (*Brooks.*) Pacific coast region, from Sitka south, in winter, to California. (*A. O. U. List.*)

172c. **Cackling Goose.**

Branta canadensis minima RIDGW. 1885.

Nelson and Turner report this as being the most generally distributed goose in Alaska. Brooks and Fannin speak of it as a winter resident on the coast of British Columbia.

BREEDING NOTES.—The Upper Yukon District, the Yukon Delta, and south to the Bristol Bay District abound with these birds in the breeding season. They remain in these places until about the first of October, while in the Aleutian Islands they remain until the middle of November. This bird does not winter in any part of Alaska. The eggs vary from seven to thirteen; they are laid in a carelessly-arranged nest composed of dead grasses and a few feathers. The young remain with the parents until the latter moult by the 20th August, by which time the young are able to fly. The chief food of the birds is the berries of the *Vaccinium*. (*Turner.*)

The last week of May finds many of these birds depositing their eggs. Upon the grassy borders of ponds, in the midst of a bunch of grass, or on a small knoll these birds find a spot where they make a slight depression and perhaps line it with a scanty layer of grasses, after which the eggs are laid, numbering from five to eight. The eggs, like the birds, average smaller than those of other geese. As the eggs are deposited the female gradually lines the nest with feathers plucked from her breast until they rest in a bed of down. When first laid the eggs are white but by the time incubation begins all are soiled and dingy. The female usually crouches low on her nest until an intruder comes within one hundred yards or so, when she skulks off through the grass or flies silently away, close to the ground, and only raises a note of alarm when well away from the nest. The young are hatched from the middle of June until the middle of July. (*Nelson.*)

173. **Brant.**

Branta bernicla (LINN.) SCOPOLI. 1769.

Said not to breed in Greenland lower than Lat. 70° but does so in great numbers in the Polar Sea. (*Arct. Man.*) This species breeds in numbers on the coasts and islands of Hudson Bay and the Arctic Sea, and is rarely seen in the interior. (*Richardson.*)

This species is a very abundant migrant on the whole Atlantic coast, filling at times the heads of all the bays and feeding on seaweed, chiefly of the genus *Ulva*. It is quite frequent in the St. Lawrence and is known to ascend the Ottawa to thirty miles below the city. It is casual in Lake Ontario and said to be a rare migrant in western Ontario. Occasionally seen in Manitoba; not seen to the west of that province.

MUSEUM SPECIMEN.

One specimen shot at St. John, New Brunswick, by Mr. Chamberlain.

174. **Black Brant.**

Branta nigricans (LAWR.) BANNISTER. 1870.

About the middle of May this goose makes its appearance about the mouth of the Yukon, and after a week or ten days passes northward to breed. Its breeding-ground lies considerably to the north, for during the cruise of the *Corwin*, in the summer of 1881, we first met it in the vicinity of Point Barrow, where the Eskimos brought many of them on board. (*Nelson.*) About the middle of May a great stream of these birds pours northward between St. Michael Island and Stewart Island. Few are seen in the fall as they then pass through the interior going south. (*Turner.*) This bird appears at the end of the main spring migration of the water-fowl, but not in considerable numbers. A few remain to breed and are seen flying about the tundra during June. After the middle of August they begin to fly across the isthmus of Pergmiak coming west along the shore of Elson Bay, crossing to the ocean and turning southward along the coast. (*Murdoch.*) An abundant winter resident along the coasts of Vancouver Island and British Columbia. (*Fannin.*)

BREEDING NOTES.—The nest of this bird is placed in rather marshy ground and is a simple depression, lined with down with which the eggs are completely covered when the bird leavesthe nest. They sometimes begin to sit on four eggs and sometimes lay as many as six. (*Murdoch.*)

MUSEUM SPECIMENS.

One pair shot at Kadiak Island, Alaska.

175. **Barnacle Goose.**

Branta leucopsis (BECHST.) BANNISTER. 1870.

A regular autumnal visitor at Julienshaab, and may perhaps breed in Greenland ; recorded also from the east coast. (*Arct. Man.*)

LXVII. **PHILACTE** BANNISTER. 1870.

176. **Emperor Goose.**

Philacte canagica (SEVAST.) BANNISTER. 1870.

Among the various species of birds, more or less peculiar to Alaska, this goose is perhaps the most noteworthy. The limited area covered by its migrations, its narrow range, reaching only across the area bounded by the Aleutian Islands to the south, and the vicinity of Behring Strait on the north, and the little known of its life-history caused me to give it much attention at St. Michael. (*Nelson.*) The habitat of this goose is strictly littoral-maritime, frequenting only the reefs, rocks and shoals of the salt-water and brackish lagoons of the mainland coast. It is never found in fresh-water localities excepting those contiguous to the sea, such as the lower Yukon Delta, mouth of the Kuskoquim River, and the bars lying off the mouth of the Nuskagak River. (*Turner.*) Occurs regularly on the Pribyloff Islands in summer, but does not breed. (*Townsend.*) One specimen killed at Che-mainus, Vancouver Island, December, 1894. (*Fannin.*)

BREEDING NOTES.—On May 22nd my Eskimo hunter brought in the first one, a magnificent male in fine plumage. From that time on they became more common daily until the first of June, when they arrived in full force. Soon after their arrival they began to pair, and were seen flying in couples, keeping close to the ground, rarely flying twenty or thirty yards high, and often barely keeping clear of the surface. Early in June they begin depositing their eggs on the flat, marshy islands bordering

the sea. They nested most abundantly on the salt-marshes adjacent to their feeding-grounds and their eggs were often placed among fragments of drift-wood below the mark of the highest tides. Stray pairs were found nesting further inland in the marshy meadows also frequented by other species of geese, but on the salt-flats, near tide-water, the Emperor Goose held undisputed possession. The majority of the nests found contained from three to five eggs, the full complement ranging from five to eight. As the complement of eggs approached completion the parent made a soft bed of fine grass, leaves, and feathers plucked from her own breast. As a rule, when driven from her eggs, the female flew straight away and alighted at some distance, sometimes half a mile from the nest, showing very little concern. (*Nelson.*)

MUSEUM SPECIMEN.

One, shot twenty miles south of Kadiak Island, Alaska.

LXVIII. OLOR WAGLER. 1832.

79. Whooping Swan.

Olor cygnus (LINN.) BONAPARTE. 1856.

Occasional in Southern Greenland. (*A. O. U. List.*)

80. Whistling Swan.

Olor columbianus (ORD) STEJN. 1882.

This species is a rare and accidental visitor along the Atlantic coast from Newfoundland southward. It is not uncommon in the Gulf and River St. Lawrence and is a regular visitor on Lake Erie and the Great Lakes generally. Migrants in all parts of Manitoba and westward over the prairie, apparently not breeding south of the Arctic circle.

This species breeds on the coast of the Arctic Sea within the Arctic circle and is seen in the interior only as a migrant. (*Richardson.*) Both Nelson and Turner speak of this bird being a common species in Alaska. Mr. Turner says it migrates about the middle of October and at this time the migration is always to the northward from St. Michael and directed towards the head of Norton Sound. From there it evidently crosses to the Yukon and passes up it to the Rocky Mountains. A common migrant in British Columbia, and according to Fannin very

abundant during the summer in some portions of the mainland interior. The young have been taken on Vancouver Island. Brooks says that a swan, (apparently this species) winters in suitable localities in the Okanagan district, B.C.

BREEDING NOTES.—This species builds on the ground and the nest usually contains five eggs; several were also found on the coast and islands of Liverpool and Franklin bays in the Arctic Ocean. (*Macfarlane.*) The birds arrive on the coast singly or in small parties, and directly after scatter to their summer haunts. At Nulato, Dall found them laying their eggs by May 21st, but on the sea-coast, May 30th is the earliest date I have of their eggs being taken. Dall states that they lay two eggs, but this must refer to a single nest, for the ordinary number is from three to six. The nest is usually upon a small island in some secluded lakelet, or on a rounded bank close to the border of a pond. The eggs are deposited in a depression made in a heap of rubbish gathered by the birds from the immediate vicinity of the nest, and is composed of grass, moss, and dead leaves, forming a bulky affair in many cases. On June 14th, 1880, a swan was seen flying from the side of a small pond on the marsh near St. Michael, and a close search finally revealed the nest. The eggs were completely hidden in loose moss, which covered the ground about the spot, and in which the bird had made a depression by plucking the moss and arranging it for that purpose. The site was so artfully chosen and prepared that I passed the spot in my search, and one of my native hunters coming close behind, called me back, and thrusting his stick into the moss exposed the eggs. (*Nelson.*)

MUSEUM SPECIMENS.

One fine specimen taken on Lake Winnipeg by Mr. J. B. Tyrrell. An egg, which is supposed to be that of this species, from Mackenzie River.

181. **Trumpeter Swan.**

Olor buccinator (RICH.) WAGLER. 1832.

Stragglers are occasionally seen on the north side of Lake Erie and doubtless on Lake Ontario, but by many observers this species is referred to the more common Whistling Swan.

Occasionally seen passing over Manitoba, flying high in the spring. More plentiful in the autumn. Only a few specimens noted by Spreadborough at Indian Head, Assa., in the middle of

April, 1892. Seen passing over Revelstoke, B.C., from 18th to 20th April, 1890. This is the most common swan in the interior of the North West Territories. It breeds as far south as Lat. 61°, but principally within the Arctic circle and in its migrations generally precedes the geese by a few days. (*Richardson.*) North to the Arctic circle, on the Mackenzie River, breeds along the river. (*Ross.*) Very rare in Alaska, but is not uncommon in northern British Columbia, according to Fannin.

BREEDING NOTES.—Several nests of this species were met with in the Barren Grounds, on islands in Franklin Bay, and on the beach one was taken which contained six eggs. It was composed of a quantity of hay, down and feathers intermixed, and this was the general mode of structure of the nests of both swans. (*Macfarlane.*) A pair remained at Sumas Lake, B.C. throughout the summer of 1891 and swans (apparently this species) winter on Lake Okanagan, B. C. (*Brooks.*) It occasionally breeds in Assiniboia, although its natural breeding-grounds are much further north. A pair was found breeding at Buffalo Lake, Alberta, on April 7th, 1891. The nest contained five eggs. Mr. Spaulding described the nest as being a large structure, three feet in diameter, composed of sods, grass and rushes and lined with feathers and down. Mr. Sanderson who has lived all his life in Assiniboia and Saskatchewan informs me that wild swans used to breed on some of the lakes in Northern Assiniboia and Saskatchewan before the Canadian Pacific Railway was built. The last nest he found was during the spring of 1885, during the Northwest rebellion. It was at Sounding Lake in Assiniboia, and contained four fresh eggs (*Raine.*)

MUSEUM SPECIMEN.

One fine specimen shot on the St. Clair Flats, Ont., in November, 1884, by Mr. G. Warin.

ORDER HERODIONES. HERONS. STORKS. IBISES, &C.

FAMILY XV. IBIDIDÆ. IBISES.

LXIX. PLEGADIS KAUP. 1829.

186. Glossy Ibis.

Plegadis autumnalis (HASSELQ.) STEJN. 1885.

A flock ran the gauntlet and came along the coast as far north as Country Harbour, Nova Scotia. (*Downs.*)

Mr. John Bates shot a pair at the end of May, 1857, on a creek near Hamilton water-works. These are the only birds of this species ever seen in Ontario. (*McIlwraith.*)

187. **White-faced Glossy Ibis.**

Plegadis guarauna (LINN.) RIDGW. 1878.

Found as a rare straggler in British Columbia. Only two specimens known to have been taken in that province; one on Salt Spring Island in the Gulf of Georgia, and the other at the mouth of the Fraser River. (*Fannin.*)

FAMILY XVI. **ARDEIDÆ.** HERONS, BITTERNs, &c.

LXX. **BOTAURUS** HERMANN. 1783.

190. **American Bittern.**

Botaurus lentiginosus (MONTAG.) STEPH. 1819.

This species is only a straggler in Greenland but is a summer migrant in Newfoundland. It breeds in Prince Edward Island, Nova Scotia, New Brunswick, Quebec and Ontario and northward to Hudson Bay, in all suitable localities.

Westward it becomes more abundant and is found commonly from Manitoba to the Pacific, never being seen in flocks but turning up in all marshes and in weedy brooks. Richardson says it is common in the interior up to the fifty-eight parallel, and Bernard Ross says it descends the Mackenzie to the Arctic Sea. Although it is abundant in British Columbia we have no record of its occurrence in Alaska.

BREEDING NOTES.—Nests in the reeds and grass in nearly all marshes. On June 29th, 1892, found a nest at Indian Head, Assa., containing five eggs. The nest was built on a mass of last year's rushes about eighteen inches above the water and consisted of the same materials. The bird feeds upon mice, snakes, frogs and almost anything that has life and that it is able to swallow. (*Spreadborough.*)

A pair breeds every year in Ashbridge's Bay, Toronto, Ont. This species lays five eggs, occasionally six. (*Raine.*)

I have found the nest of this species four times in the County of Leeds, Ont. The bird lays its eggs very regularly about the

24th of May apparently being little influenced by the season, just as in the case of the Loon. It also has a preference for the same locality year after year, even though the eggs are taken. The first three nests I found were in small ponds in a meadow nearly surrounded by woods, and were built three successive years in one or other of the two ponds among the flags of last year's growth, in one case floating in two feet of water. The complement of five eggs, once of six, was laid by the 26th of May, and in one case incubation had commenced some days previously. The fourth nest I found was in an open, but wet meadow, and the nest was formed of grass in a springy place, very unlike the others. On the 3rd of June the five eggs were much incubated. (*Rev. C. J. Young.*)

This species is rather common in the large marshes in western Ontario. It makes a bulky nest in a dry portion of the marsh and lays four or five eggs. (*W. Saunders.*) Breeding in large numbers at Crane Lake, Assa., in the marshes. The nest is generally on old dead grass in one or two feet of water, but one containing two eggs partly incubated was found on dry ground on June 9th. On the 20th I found many nests but in nearly all the eggs were so much incubated that they were unfit to take. Most of the nests contained four or five eggs. One nest was taken which had five eggs in it, one of which was that of the Lesser Scaup.

MUSEUM SPECIMENS.

Two mounted specimens taken in Toronto marsh by Mr. S Herring. Three unmounted, one of which was taken at Ottawa by Mr. G. R. White, another at the same place by Dr. Charles Saunders, and another at Banff, Alberta, by Mr. Spreadborough. Several sets of eggs taken in the marshes around Crane Lake, between June 9th and 16th, 1894.

LXXI. **ARDETTA** GRAY. 1842.191. **Least Bittern.**

Ardetta exilis (GMEL.) GUNDL. 1856.

A rare summer resident along the Bay of Fundy between Black River and Mispic, New Brunswick. (*Chamberlain.*) Accidental at Quebec. (*Dionne.*) Rare in the district of Montreal but perhaps more plentiful than we think, as it is retiring in its habits.

(*Wintle.*) A summer resident near Ottawa. Known to build.
 (*Ott. Nat.*) A regular summer resident in Southern Ontario.
 (*McIlwraith.*) Accidental in Manitoba. (*Thompson.*) One specimen taken at Crane Lake, Assa., in June, 1894, by Mr. W. Spreadborough.

BREEDING NOTES.—At Hamilton Bay, Ontario, it is a regular summer resident, raising its young in the most retired parts of the marsh. The nest is large for the size of the bird, a platform being made for its support by bending down the flags till they cross each other a foot or more above the water-level. The whole affair is very loose and readily falls asunder at the close of the season. (*McIlwraith.*) The Little Bittern breeds in Ashbridge Bay, Toronto, and lays five eggs. (*Raine.*)

A bird that is met with sparingly in suitable places near the St. Lawrence; for example, at Escott Pond, Leeds Co., Ont.; the neighbourhood of Gananoque Lake, and around Kingston, Ont. It is not a regular visitant; some years scarcely one is noticed, for this bird makes its presence evident by its peculiar call. The nest is hard to find. I found one at the first-mentioned place, the 9th June, 1892. It was built amongst a very thick growth of last year's flags, about eighteen inches above the water, supported by the matted vegetation and formed of the dead flag leaves, but quite dry. It contained at that date six bluish-white eggs, quite fresh. (*Rev. C. J. Young.*) Not uncommon in all the large marshes in western Ontario. (*W. Saunders.*)

MUSEUM SPECIMENS.

Two taken in Toronto marsh by Mr. S. Herring in 1867; also one set of eggs taken on St. Clair Flats, near Chatham, Ont., June 1st, 1896. Presented by Mr. W. Saunders.

191.1. **Cory's Least Bittern.**

Ardetta neoxena CORY. 1886.

Mr. Cory published the description of this bird in 1886 and on May 18th, 1891, Mr. Wm. Cross of Toronto procured a specimen which had been shot in Toronto marsh. A second specimen was taken in the same place on May 20th, 1893, by a fisherman named Ramsden, as recorded by Mr. McIlwraith, and Mr. Raine informed me, in the spring of 1898, that "upwards" of a dozen

specimens have been obtained in Ashbridge marsh at Toronto. I have no doubt that a few come there to breed and indeed may succeed in doing so. Other specimens were taken at Toronto, in October, 1899.

LXXII. **ARDEA** LINN. 1758.

194. **Great Blue Heron.**

Ardea herodias LINN. 1758.

Breeds in colonies in Nova Scotia, New Brunswick, Prince Edward Island, Quebec, Ontario, Manitoba, Assiniboia and British Columbia.

Richardson says that it is only accidental in the North West Territories and it seems to be rare in Alaska but likely breeds along the Yukon or its branches.

BREEDING NOTES.—Downs reports a large heronry on Mount Uniake, Nova Scotia, in the tops of birch trees. A few breed near Rustico in Prince Edward Island. There is a large heronry on the Quebec side of the Ottawa twenty-five miles below the city of Ottawa. Mr. Seton-Thompson in his *Birds of Manitoba*, mentions the discovery of a heronry on Riding Mountain in Manitoba, at the head of Bird Tail Creek, in the summer of 1880, and the writer, in June 1894, saw a small one on Skull Creek, a small brook that descends from the Cypress Hills in Assiniboia.

The following description of the heronry on the Ottawa is taken from *McIlwraith's Birds of Ontario*, page 110 :

“The heronry is located in the centre of a thick swamp which, on the occasion of our first visit, was so deeply submerged as to bar all ingress. On the 19th July, however, the water was but knee-deep. After proceeding about half a mile into the swamp, our attention was arrested by a peculiar sound which we at first thought proceeded from some distant saw-mill or steamer on the river. As we advanced, however, the sound resolved itself into the most extraordinary noises, some of which resembled the yelping of dogs or foxes. On penetrating still deeper into the swamp, we discovered that the noises proceeded from an immense number of herons, some perched on branches of trees, some sitting on nests, and others flying overhead. The uproar was

almost deafening and the odour arising from the filth with which the trees and ground were covered was extremely disagreeable. We tramped all through the heronry and calculated that it must extend about half a mile in each direction. The nests were all of the same pattern, great cumbersome piles of sticks, about a foot thick, with but a very shallow cavity and no lining."

The heronry on Riding Mountain, Man., is thus described by Mr. E. Seton-Thompson :—

" We had struck a heronry ; hundreds of these birds were passing to and fro, and, on going forward a hundred yards or so, we found the tops of the poplars covered with their nests, the young birds, full grown but not able to fly, perched on the highest trees. The nests were made of the small dead branches of the poplar and were placed as near the tops of the trees as possible.

" These mountains are full of small ponds and deep marshes which swarm with lizards and small fish, on which the herons feed. On getting to an open space near the heronry we could see the old birds coming and going in every direction. Those coming home were stuffed to the bill with food for their young, making them present a very ungainly figure, as they lazily flapped their way towards the woods."

A few years ago this species bred in the township of Escott, Ont., and some of the old nests were still left in 1895. In the next township—Yonge—a few birds still breed near MacIntosh Mills, and their nests may be noticed on some tall pine trees. A large heronry existed in a bush near the River Tay, Lanark Co., in 1885. The nests were built mostly on ash trees, three or four nests often in one tree. It still breeds in the township of Elizabethtown, where there is a large heronry near Graham Lake. Two sets of eggs, five of each, were taken from this heronry on May 6th, 1899. (*Rev. C. J. Young.*)

In Muskoka, Ont., they build in tall pine trees. One tree on an island in a lake about twelve miles from Bracebridge had between fifteen and twenty nests in it. They used to breed in Muskoka in great numbers, but have been driven farther back and are rather scarce now. I have known one to sit upon a heap of floating mud in a small lake, for thirty-six hours, catching fish. They feed upon frogs and fish. At Crane Lake, Assiniboia, I

counted thirteen nests in a clump of *Negundo aceroides* on June 16th, 1894. Breeds also on Vancouver Island. (*Spreadborough.*) Heronries are now generally deserted in the vicinity of London, Ont., and the birds are much less common than formerly. Single nests are now more and more the rule. Eggs, four and five, sometimes spotted with deep black. (*W. Saunders.*)

MUSEUM SPECIMENS.

One taken near Ottawa, by Mr. G. R. White; another in Toronto marsh by Mr. S. Herring. One set of eggs taken at Chatham, Ont., April 30th, 1880, and received from Mr. Raine.

195. **European Blue Heron.**

Ardea cinerea LINN. 1758.

Said by Crantz to have been seen in South Greenland, August 27th, 1765; a young bird found dead near Nenortalik in 1856 was sent to Copenhagen. (*Arct. Man.*) Several specimens taken since 1856. (*Winge.*)

196. **American Egret.**

Ardea egretta GMEL. 1788.

Casual in summer in Nova Scotia. (*Downs.*) One shot at Grand Manan, New Brunswick, in 1878. (*C. J. Maynard.*) This species was seen by Mr. Comeau at Godbout on the St. Lawrence in 1882. (*Dionne.*) A rare visitor in the Montreal district. A pair was observed at Beauharnois in the fall of 1889 and one shot; another example was taken in the summer of 1891 at Isle aux Noix, forty miles from Montreal. There is a record in *The Auk*, vol. II., page 110, of a pair seen at Rockliffe, on the Ottawa River, in the spring of 1883. The male was obtained and is now in the Museum at Ottawa. These were adults, but the specimen in my collection, which was obtained at Rondeau, near the west end of Lake Erie, and others which I have heard of along our southern border, were all young birds. (*McIlwraith.*) An adult specimen of this species was shot on Duck Bay, Lake Winnipegosis, in 1888, by Mr. David Armit. This I believe is the northernmost record for the species. (*Seton-Thompson* in *The Auk*, Vol., x, p. 49.)

MUSEUM SPECIMEN.

One taken on the Ottawa River.

197. **Snowy Heron.**

Ardea candidissima GMEL. 1788.

Casual visitor in Nova Scotia ; one specimen shot in a marsh near Halifax, another at Musquodoboit. (*Downs.*) Saw one shot at Combermere, Renfrew Co., Ont., in August, 1892. (*Rev. C J. Young.*) Accidental in British Columbia. Two specimens taken at Burrard Inlet, B.C., May, 1879. (*Fannin.*)

200. **Little Blue Heron.**

Ardea cærulea LINN. 1758.

Accidental and very rare in Nova Scotia. (*Downs.*) There was brought to me at Quebec a specimen of this bird, killed on the St. Lawrence by an amateur in October, 1881. (*Dionne.*)

201. **Green Heron.**

Ardea virescens LINN. 1758.

Occasional in Nova Scotia. (*Downs.*) A summer resident, but rare, at St. John, New Brunswick ; commoner in the northern counties. (*Chamberlain.*) A scarce summer resident at Montreal. May breed, as young birds were seen at Caughnawaga, on September 1, 1887. (*Wintle.*) This handsome little Heron finds its northern limit along the southern border of Ontario. According to Dr. Macallum, it breeds regularly on the banks of the Grand River, near Dunnville, and has also been observed, occasionally, near Hamilton and at St. Clair Flats. (*McIlwraith.*) Often shot in Ashbridge Bay, Toronto. (*Raine.*)

The writer, thought he saw a number of specimens of this species on the Assiniboine River, near the mouth of Shell River, Manitoba, on the 26th September, 1881, but never having seen any since believes now they were the next species. Seton-Thompson records this species in his *Birds of Manitoba*, on my authority and that of Mr. Hunter, but as neither of us mentions the next species, I believe we mistook our bird and the Night Heron was the bird we saw.

BREEDING NOTES.—A rare visitant in eastern Ontario. I have met with the bird twice; the second time near MacIntosh Mills, Ont., in May, in a locality where there was a possibility it might be paired and was breeding. The bird was very tame, and alighted on the dead limbs of trees. Their principal place of resort on the St. Lawrence is Charleston Lake, where I found a small colony breeding. On May 29th, 1899, I found two nests, one with three eggs, the other close by, with one. On June 14th I saw a nest with five eggs and another one in which the eggs had been destroyed. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

One mounted specimen, obtained near London, Ont., in 1864, and bought with the Holman collection; also a pair shot at Ottawa by Dr. Charles Saunders.

LXXIII. **NYCTICORAX** STEPHENS. 1819.

202. **Black-crowned Night Heron.**

Nycticorax nycticorax nœvius (BODD.) ZELEDON. 1885.

A rare visitor in Nova Scotia. (*Downs.*) A summer resident in New Brunswick; reported abundant at Bathurst and River Charlo. (*Chamberlain.*) Abundant in September, 1882, at Port Daniel, Bay of Chaleur, Quebec. (*Macoun.*) A single specimen taken at Lake Mistassini on 6th August, 1885. (*J. M. Macoun.*) Not uncommon at Beauport and River St. Lawrence, Que. (*Dionne.*) Shot in the fall at Ashbridge Bay, Toronto, Ont. (*Raine.*) Common in western Quebec and eastern Ontario, where it is known to breed. The young of this species have been taken at Ottawa in July by Mr. G.R. White.

Not uncommon in Manitoba, breeding in marshes, but not found in Assiniboia or Alberta.

BREEDING NOTES.—Nest in great numbers in the reeds around Shoal Lake. They fix their nests to the reeds, about eight or nine inches above the water, and deposit in each four or five roundish blue eggs. I think this is the only place in Rupert's Land where this species is found. (*D. Gunn, vide McIlwraith.*)

MUSEUM SPECIMEN.

One mounted specimen, taken in Toronto marsh by Mr. S. Herring in May, 1867.

A set of four eggs taken at Swamp Lake, Manitoba, on June 6th, 1893, by Mr. Raine.

ORDER PALUDICOLÆ. CRANES. RAILS, &C.

FAMILY XVII. GRUIDÆ. CRANES.

LXXIV. GRUS PALLAS. 1766.

204. Whooping Crane.

Grus americana (LINN.) VIEILL. 1817.

Thirty years ago this species was found in all the large marshes from the Red River to the Rocky Mountains, but with the building of the Canadian Pacific Railway and increased population, it is gradually retiring northward. A few still breed in eastern Assiniboia, but most pass northward into the Saskatchewan and Athabasca districts and further north. A pair was found, likely breeding, on Twelve-mile Lake, Wood Mountain, June 6th, 1895. Richardson wrote many years ago that this bird frequented all parts of the Northwest traversed by him, and Macfarlane writes that though he never found any nests he observed flocks both in spring and fall flying over Fort Anderson near the Arctic Sea. The only record of the occurrence of this species in Ontario I find in McIlwraith at page 116. He says that a single specimen was taken in the township of Camden in Addington County on the 27th September, 1871, by Mr. Wesley Potter.

MUSEUM SPECIMENS.

A fine pair presented by Mr. Thomas McKay of Red Deer Hill, near Prince Albert, Saskatchewan, taken in the spring of 1893. One egg collected at Oak Lake, Manitoba, May 21st, 1893.

205. Little Brown Crane. "Sandhill Crane."

Grus canadensis (LINN.) TEMM. 1820.

One obtained near Igloolik, in Greenland, June 20th, 1869. (*Arct. Man.*) Owing possibly to a misapprehension this species has been overlooked in Manitoba and hence Seton-Thompson only includes *Grus mexicana* in his catalogue of Manitoba birds. Sir John Richardson on the other hand does not include *Grus mexicana* in his *Fauna Boreali Americana*, but says that some individuals are

larger and have longer bills. The Sandhill Crane reached Carleton House April 28th, 1887, and Dr. G. M. Dawson recorded it at Dufferin, Man., between April 25th and 30th, 1874.

In *The Auk* for January, 1893, Mr. E. Seton-Thompson speaks of a specimen of this bird being killed on the Qu'Appelle River. On September 16th, 1881, the writer shot a specimen near Fort Pelly which was certainly the Little Brown Crane as it was much smaller than the one taken on the prairie in 1872. More light is needed on the distribution of the two species named Sandhill Cranes by the people generally. Either this species or the next is scattered over the country from the 49th parallel to the Arctic Ocean and is specially abundant in Alaska and British Columbia.

BREEDING NOTES.—As a rule this species is not seen on the Lower Yukon until about May 7th or later, when the ground is half bare and the cranes can search every hillside for last year's heath-berries, which, with an occasional lemming or mouse, constitute their food at this season. The site for the nest is usually on grassy flats, where the drier portions or the slight knolls afford them suitable places. The spot usually has an unobstructed view on all sides, and it is common to see the female's long neck raised suspiciously at the appearance in the distance of anything unusual. The nest is frequently a mere hollow in the ground, and is commonly lined with more or less coarse grass-stems and straws. In one instance a nest was found on a bare flat and was lined with a layer of straws an inch deep, all of which must have been brought some distance; this is unusual, however. The two eggs which this bird always lays, are generally deposited during the last few days of May or early June. (*Nelson.*)

MUSEUM SPECIMEN.

One specimen purchased with the Holman collection in 1885.

206. **Sandhill Crane.**

Grus mexicana (MÜLL.) VIEILL. 1817.

Mr. McIlwraith in his *Birds of Ontario* gives two instances of the breeding of this species in southwestern Ontario and mentions the killing of another specimen at Rondeau, Lake Erie, in 1869.

I have carefully read Mr Ernest Seton-Thompson's account of *Grus mexicana* in his *Birds of Manitoba*, and am of the opinion that some of his "Sandhill Cranes" were *Grus canadensis*. Indeed in quoting Dr. Coues he says that he (Coues) found this species breeding west of Pembina when in reality Dr. Coues says it was the Brown Crane he found there. See Coues on *Birds of Dakota and Montana*, page 646. It is possible, however, that Dr. Coues gave the wrong name to his species.

In my earlier explorations I was misled in this same way by both cranes being called "Sandhill Cranes." In 1872 a specimen of this species was caught with a lasso by one of our men, who ran him down, when moulting in August of that year. This specimen was much heavier than the 10 lb. specimens of Mr. Seton-Thompson. Richardson's specimen, killed on Great Slave Lake in 1822, was forty-eight inches long, so that it was certainly this species also. Fannin and Brooks say that it is a summer resident in Southern British Columbia, but chiefly east of the Coast Range, though not so common as the Little Brown Crane which is, however, chiefly a migrant.

BREEDING NOTES.—The Sandhill Crane comes to southern Manitoba about the end of April, circling around high in the blue and uttering its peculiar call. When mating it repairs to some hillock or knoll and executes a sort of war dance by dancing around and flapping its huge wings. It usually breeds on some tussock of decaying vegetation in a marsh, building quite a large nest of moss and rushes. I have never seen more than two eggs in the nest. These are shaped and coloured very much like those of the Loon, though perhaps, a little more pointed. The young leave the nest almost immediately after hatching. They are clothed with a thick ferrugineous down, and have legs about four inches long. If caught when very young they are easily tamed, readily eating bread or scraps of meat, and are of great service to a gardener. I have seen one about a month old go down a line of onions and take up every cut-worm from their roots, as if an inch and a half of mould were perfectly transparent. After the young are fully grown they gather into flocks of from twenty to thirty and migrate southwards in the early autumn. (*Cecil Selwyn.*)

MUSEUM SPECIMEN.

One fine specimen purchased with the Holman collection in 1885.

FAMILY XVIII. **RALLIDÆ** RAILS, GALLINULES, COOTS.LXXV. **RALLUS** LINNÆUS. 1758.208. **King Rail.***Rallus elegans* AUD. 1835.Casual around Montreal in summer. (*Dionne.*)

This large and handsome Rail, which until recently was considered to be only a casual visitor to Ontario, is now known to breed plentifully in the marshes all along the River St. Clair. It has also been found at other points in southern Ontario, but the St. Clair Flats seem to be its favourite breeding-place. It arrives in May and leaves in September. (*McIlwraith.*) Observed once at Plover Pond, Middlesex Co., Ont. (*R. Elliott.*)

Mr. Hine and Mr. E. Seton-Thompson have seen this species in Manitoba, where it is evidently a casual.

MUSEUM SPECIMEN.

One specimen purchased with the Holman collection in 1885.

212. **Virginia Rail.***Rallus virginianus* LINN. 1766.

A common summer migrant in New Brunswick. (*Chamberlain.*) Not uncommon along the St. Lawrence. (*Dionne.*) A casual on the coast of Labrador, Newfoundland and Nova Scotia. Common in western Quebec and eastern Ontario, where it breeds. Generally distributed throughout Ontario. A common summer resident in eastern Manitoba. Not seen to the west of that province, in the prairie region. Found on both the mainland and Vancouver Island; not common; breeds. (*Fannin.*) Tolerably common summer resident in the Lower Fraser valley; winters at Lake Okanagan, B.C. (*Brooks.*)

BREEDING NOTES.—A nest was brought to me from a slough near Carberry, Manitoba, July 30th, 1884. It was found in a tussock of coarse grass, and was built of dry stems of the same. The eggs, eight in number, were quite fresh, and differed from the Carolina Rail only in being of a lighter colour and with reddish instead of umber spots, these chiefly about the larger end.

The nest was of rushes, and built precisely like that of the Carolina bird, but it was situated rather in a damp meadow than a marsh. (*Seton-Thompson.*) This is the commonest rail in the St. Lawrence valley and breeds annually in the marshes along the St. Lawrence and inland. It frequents larger marshes than the Sora, though occasionally they are found breeding in the same localities. I have found several nests; two of these were in wet places, formed by rank grass, etc., and placed simply in tussocks of marsh grass. The third was near Gananoque Lake among a cluster of flags and bullrushes, and was formed of last year's stems of the latter, fastened among the rushes and floating in about eighteen inches of water, like a Gallinule's. They are late breeders. The first nest I found, containing nine eggs, on the 17th June, incubation only commencing; the last one, six eggs, incubation advanced, on the 15th July, 1896. (*Rev. C. J. Young.*) This is a rare bird in Manitoba. On the 12th June, 1893, I found a nest with one egg at Reaburn, Manitoba, and shot the parent. (*Dippie.*) This species breeds wherever there is a sufficiently large marsh, a small one of an acre being enough to please, and sometimes even less will do. (*W. Saunders.*)

MUSEUM SPECIMENS.

Three; two taken in Toronto marsh, and the third at Ottawa by Dr. Charles Saunders.

One set of eggs taken in a marsh near Ottawa, by Mr. A. L. Garneau, on May 20th, 1896; another set taken at St. Clair Flats, June 11th, 1893, received from Mr. Raine.

LXXVI. **PORZANA** VIEILLOT. 1816.213. **Spotted Crake.**

Porzana porzana (LINN.) BOUCARD. 1876.

One specimen of this species is said to have been shot at Frederickshaab, Greenland some years ago. (*Hagerup.*) One obtained at Godthaab, September 28th, 1841; a second taken at Nenortalik was sent to Copenhagen in 1856. (*Arct. Man.*) Taken again in 1878. (*Winge.*)

214. **Carolina Rail. Sora.**

Porzana carolina (LINN.) BAIRD. 1845

Casual in Greenland. One killed at Sukkertop, October 3rd, 1823. (*Arct. Man.*) Several taken in recent years in Greenland.

(*Winge.*) A summer migrant in Newfoundland, rare in Nova Scotia, breeding in Prince Edward Island, New Brunswick, Quebec and Ontario, apparently increasing in numbers to the west. Stragglers are found on Hudson Bay and Spreadborough found them breeding at Moose Factory, James Bay, June 9th, 1896.

This is a common species, breeding from Manitoba westward through the prairie region, Rocky Mountains at Banff, and north to Lat. 55°. British Columbia, from Kamloops to the Pacific Coast. Sir John Richardson places its northern limit at Lat. 62°, and Bernard Ross places it on the Mackenzie River at Big Island in nearly the same latitude. This species is unknown in Alaska.

BREEDING NOTES.—Nesting in clumps of rushes and grass growing in water. Nest rather compact consisting of grass placed from six inches to one foot above the water. Young leave the nest as soon as hatched. A nest was taken at Deep Lake, Indian Head, Assa., on June 29th, 1892, which contained three eggs and one young one just hatched, the young one was dark slate on the back, below rather lighter, a chin patch of bright orange, almost red, bill light horn-colour, except the base which was red. (*Spreadborough.*) A well-known species in Ontario and more generally distributed than the Virginian Rail, though apparently not breeding so plentifully in the St. Lawrence district. I met with the bird on the Magdalen Islands in June, 1897, when on the 22nd of that month I found among bullrushes a nest containing six eggs and young ones just hatched. The nest was a neat affair constructed of last year's reeds and fastened to the stalks, in water that was knee-deep and only a short distance from a sandy bar, that divided a large pond from the sea. The first nest I found in 1895, near the St. Lawrence, was built of grass stalks in a tussock, where there was not much water. We have therefore three species, the two Rails and the American Bittern that vary their nesting location as well as the material they use, thus showing that one must have considerable experience before laying down as hard and fast facts, the site and construction of nests. (*Rev. C. J. Young.*) Found breeding at Reaburn, Manitoba, and Buffalo Lake, Alberta. (*Dippie.*) This species, like the Virginian Rail, breeds in all marshes of sufficient size throughout Western Ontario. (*W. Saunders.*)

In a marshy lake grown up with *Carex aristata*, within a couple of miles of Crane Lake, Assa., the writer took a number of nests

of this species on June 9th, 1894. The nests were near the water and constructed of dead *Carex* leaves. The eggs ranged in number from nine to sixteen and were but slightly incubated.

MUSEUM SPECIMENS.

Three; two taken in Toronto marsh, by Mr. S. Herring; and the other at Ottawa by Mr. W. P. Lett, in 1887. A fine series of eggs taken at Crane Lake, Assa., and Edmonton, Alberta.

215. **Yellow Rail.**

Porzana noveboracensis (GMEL.) BAIRD. 1845.

Rare in autumn in Nova Scotia. (*Downs.*) A rare autumn visitor in New Brunswick. (*Chamberlain.*) Rare migrant in Quebec. (*Dionne.*) A rare migrant in Ontario; occasionally taken in Toronto marsh. (*McIlwraith.*) Of late years this bird has been taken at Toronto, Ont., every year and must occur more commonly than is supposed. (*J. H. Fleming.*)

This species seems to be a far from rare summer resident in Manitoba. Ernest Seton-Thompson in his *Birds of Manitoba*, gives many instances of its occurrence and the writer's own observations agree with his expressed opinions. A small Rail that seemed to jump out of the sedge, with legs hanging down, and just as suddenly drop again has been observed as far west as Moose Jaw, but in no case was a specimen obtained.

The following is Hutchin's manuscript notice of the bird written in 1777. "This elegant bird is an inhabitant of the marshes on the coast of Hudson Bay near the efflux of the Severn River, about 150 miles south of York Factory, from the middle of May to the end of September. It never flies above sixty yards at a time, but runs with great rapidity among the long grass near the shores. In the morning and evening it utters a note which resembles the striking of a flint and steel; at other times it makes a shrieking noise. It builds no nest but lays from ten to sixteen perfectly white eggs among the grass."

MUSEUM SPECIMENS.

Two specimens, both taken in Toronto marsh by Mr. S. Herring.

216. **Black Rail.**

Porzana jamaicensis (GMEL.) BAIRD. 1845.

The following notes from McIlwraith's *Birds of Ontario* include every authentic record of the occurrence of this bird in Canada :

"Dr. Cottle of Woodstock, Ont., claims to have found a bird of this species at Ingersoll in 1856, and from my knowledge of Dr. Cottle I am satisfied his identification is correct." A Mr. Nash, who collected in the Dundas marsh in 1874, writes Mr. McIlwraith as follows in January 1894 :

"Aug. 18th, 1874.—Shot four of these birds this evening at the upper end of Dundas marsh. My dogs put them up where the rushes had been mowed. This is the first time I ever noted them here. After this date I saw several others about the same place, during this year (1874). I also shot a few Yellow Rails, and saw many."

Mr J. H. Fleming of Toronto doubts the occurrence of this bird in Ontario,

LXXVII. **CREX** BECHSTEIN. 1802.

217. **Corn Crane.**

Crex crex (LINN.) SHARPE. 1884.

A rare casual in Greenland. One obtained at Godthaab and sent to the Museum of Copenhagen in 1851. (*Arct. Man.*) Taken in Greenland in 1887, 1892, 1893 and 1894. (*Winge.*)

In *The Auk* for January, 1899, Mr. James McKinley, of Pictou, Nova Scotia, records the shooting of a specimen of this species in a marsh near Pictou nearly twenty-five years ago. The specimen remained unidentified until a recent visit paid to Pictou by Mr. Frank M. Chapman, who at once identified it.

LXXVIII. **IONORNIS** REICHENBACH. 1852.

218. **Purple Gallinule.**

Ionornis martinica (LINN.) REICH. 1852.

A very rare casual in Nova Scotia and New Brunswick. (*Downs. Chamberlain.*)

McIlwraith records the capturing of one individual at Pickering, Ont., in April, 1892.

The above are all the records we have of this species.

LXXIX. **GALLINULA** BRISSON. 1760.

219. **Florida Gallinule.**

Gallinula galeata (LICHT.) BONAP. 1832.

A rare casual in New Brunswick. One shot at Dick's Lake, September, 1879. (*Chamberlain.*) A not uncommon summer visitor in Quebec. (*Dionne.*) A common summer resident at Montreal, but more plentiful in the autumn. (*Wintle.*) Not an uncommon summer resident in Ontario, and breeds from Ottawa to Lake Erie.

BREEDING NOTES.—A nest of this species with seven eggs, partly incubated, was taken at Kars, on the Rideau River, Ont., 9th July, 1890, by Messrs. W. and F. A. Saunders.

A few years ago this was a common bird in many parts of Ontario but is becoming scarcer every year—not by reason of hunters only, but because of the draining and drying up of many of its former haunts. It still breeds in the inland marshes between Kingston and Brockville, and occasionally along the River St. Lawrence. It constructs in the water a nest of last year's stems of bullrushes, well surrounded by a growth of the same. Except in one case I have been able to row in a boat to all the nests I have found. The eggs are usually laid from the middle of May onward, the largest number I have found in one nest being eleven. They exactly resemble in size and colour the well known "Moor-hen" of Britain, as does the location of the nest. (*Rev. C. J. Young.*) This species builds in the larger marshes only. I have found it, however, in the marsh at Toronto. The nest is built like that of a Rail, fastened to the surrounding rushes, and usually high enough to escape the moisture. Eggs six to ten. (*W. Saunders.*)

MUSEUM SPECIMENS.

One specimen taken in Toronto marsh by Mr. S. Herring. Two sets of eggs, one taken by Rev. C. J. Young, on May 27th, 1892.

LXXX. **FULICA** LINNÆUS. 1758.220. **European Coot.***Fulica atra* LINN. 1758.

Accidental in Greenland. (*A. O. U. List.*) Collected in South Greenland, and now in the Copenhagen Museum. (*Winge.*)

221. **American Coot. Mud-hen.***Fulica americana* GMEL. 1788.

Twice obtained in Greenland in the same year (1854); once at Godthaab and once at Disco Bay. (*Arct. Man.*) One shot on a lake near Nain, Labrador, several years ago. (*Packard.*) Not very common in the autumn in Nova Scotia. (*Downs.*) A summer visitant, increasing in numbers in New Brunswick. (*Chamberlain.*)

Breeding in the valley of the St. Lawrence and western Quebec and throughout Ontario, and westward to the Pacific coast and Vancouver Island. The writer found it scattered throughout the prairie region, generally in large flocks, but often only a few pairs, or one pair, in small ponds. The chief breeding-grounds are in Manitoba and northwestward. It was breeding in Vermilion Lakes at Banff, Rocky Mountains, May 11th, 1891. Richardson says its northern limit is Lat. 53°, and Bernard Ross puts its limit at Fort Simpson, on the Mackenzie, in Lat. 62° 30'. Although quite common in British Columbia, only one specimen is recorded by Nelson as taken in Alaska.

BREEDING NOTES.—The Coot builds on a mass of old reeds. The nest is composed of small pieces of reeds and marsh grass, with no particular lining. The eggs, six or more in number, are of a clear clay colour, dotted all over with specks of dark brown. As the old bird has a habit of covering the nest over whenever she leaves, it is very hard to find. Breeds in the marshes around Ottawa, Ont. (*G. R. White.*) Breeds in the same localities with the Florida Gallinule, and constructs its nest in the same manner. (*W. Saunders.*) Nests in reeds and grass growing in the water along the margins of lakes and ponds. The nest is composed of reeds and grass, and rather small and shallow. The young leave the nest as soon as they are hatched. Found breed-

ing in marshes at Indian Head and Crane Lake, Assa., at Banff, Rocky Mountains, and at Kamloops, B.C. (*Spreadborough*.) In a marsh at Crane Lake, composed chiefly of *Carex aristata* and a few clumps of *Scirpus lacustris*, the writer, in the course of an hour's wading, discovered eighteen nests of this species, nearly all of which contained eleven eggs. From ten to twelve was the usual number. The young hatch out very irregularly, and as fast as they come from the shell they leave the nest and take to the water. The nests were all made of the dead *Scirpus* and lined with the broad leaves of the *Carex*.

MUSEUM SPECIMENS.

One taken by Mr. S. Herring in Toronto marsh, and two others at Kamloops, B.C., by Mr. W. Spreadborough.

A set of twelve eggs, taken by Mr. Dippie at Long Lake, Man. Also a set containing six eggs of the Coot and two of the Lesser Scaup, taken at Burnt Lake, Alberta, June 14th, 1896, and presented to the Museum by the same gentleman.

ORDER LIMICOLÆ. SHORE BIRDS.

FAMILY XIX. PHALAROPODIDÆ. PHALAROPES.

LXXXI. CRYMOPHILUS VIELLIOT. 1816.

222. Red Phalarope.

Crymophilus fulicarius (LINN.) STEJN. 1885.

Said to be the latest summer bird to arrive in Greenland; very rare in the south and not known to breed below Lat. 68° N., but thence northward, common. (*Arct. Man.*) It is a common migrant in Newfoundland, Nova Scotia, New Brunswick and Quebec, but rare in Ontario and prefers the coast to the more inland waters. It is abundant on the shores of Hudson Strait and a few breed there according to Turner. Only two specimens have been seen on the prairies by the writer, one shot on Long Lake, in July, 1879, and another on Old Wives Lake, in May, 1895. Fannin mentions the species as being taken in British Columbia at Burrard Inlet and at Chilliwack only.

This species abounds in high northern latitudes, breeds on the North Georgian Islands and Melville Peninsula, and was often seen by northern expeditions swimming in the sea far

from land. (*Richardson.*) This bird is fairly abundant on the shores of Franklin Bay, where nests were obtained on marshy flats in the first week of July, 1864. (*Macfarlane.*) This species arrives at the Yukon mouth and adjacent parts of the Behring Sea coast during the last days of May and the beginning of June. It breeds abundantly on all the coasts and islands and far into the interior. (*Nelson.*) The Red Phalarope arrives at St. Michael about the beginning of June. It is not abundant at any time but is rather more common on the mainland than on the island of St. Michael. In the neighborhood of the Yukon Delta it is abundant throughout the summer. (*Turner.*) One of the commonest birds at Point Barrow, and remaining till late in October when the sea begins to close. (*Murdoch.*)

BREEDING NOTES.—Very early in June, at St. Michael, Alaska, the eggs are laid in a slight depression, generally on the damp flats where the birds are found. There is rarely any lining to the nest. Towards the end of June most of the young are hatched and by the middle of July are on the wing. The sites chosen for this bird's nest are very similar to those taken by *P. lobatus*, except that the latter may pick dryer situations. One nest was taken on June 8th within six feet of a brackish pool, the eggs being deposited in a nest of dried leaves under a dwarf willow. (*Nelson.*)

MUSEUM SPECIMENS.

Two specimens taken in Toronto marsh by Mr. S. Herring.

LXXXII. PHALAROPUS BRISSON. 1760.

223. Northern Phalarope.

Phalaropus lobatus (LINN.) SALVAD. 1872.

Seems to be the commonest species of Phalarope in Greenland, and possibly very far to the northward. (*Arct. Man.*) Breeds on islets in Ungava Bay and is common along the northern coast of Labrador. (*Turner.*) Observed about a dozen in a small pond on an island in James Bay, June 16th, 1896, where they were evidently breeding. None were seen in the interior of Labrador. (*Spreadborough.*) A migrant in Newfoundland, Nova Scotia, and New Brunswick.

In Quebec and Ontario it is a common migrant and is doubtless common in summer in all parts of Hudson Bay, where it undoubt-

edly breeds in large numbers, although it seems to be a rare migrant in Manitoba. Dr. Coues found this bird in numbers in a pool near the base of the Rocky Mountains, not far from the International Boundary, on August 16th, 1874, and thought it might breed there. It was very abundant at Indian Head, Assa., in 1892. Spreadborough says it was first seen there May 15th, but by May 25th to 30th there were thousands at Deep Lake, yet on June 3rd they were all gone. On June 3rd, 1895, specimens were shot at Thirty-mile Spring, and on June 6th others at Twelve-mile Lake, near Wood Mountain, Assa. They seemed to be breeding. Richardson, Ross and Macfarlane agree in saying that this species occurs in immense numbers in the breeding season both in the wooded country and Barren Grounds and extends right up to the Arctic Coast. Nelson and Turner both say that this is a very common species in Alaska, breeding throughout most of the country, but especially along the marshy northern coast. In British Columbia it is a common migrant, and Mr. Fannin has taken it in July on Burrard Inlet, so it is probable that a few pairs breed there.

BREEDING NOTES.—This species arrives at St. Michael, Alaska, about May 25th. Its food consists entirely of aquatic worms, slugs, larvæ and flies. It breeds in June. The nest is placed among the grasses and consists of a lot of grass-blades arranged with little care. Four or five eggs, of greenish ground, thickly bloched with dark, are laid. The young are able to fly by the first of August. (*Turner.*) The usual number of eggs is four, which vary considerably in exact colouration. The ground-colour in the very large series before me, obtained in the vicinity of St. Michael, shades by every degree from greenish-clay colour to warm, buffy, olive-brown. The spots and markings are very irregular in size and shape, but are usually larger about the large end of the egg. (*Nelson.*) The nest, like that of the Red Phalarope, is a slight depression in the ground, lined with a few dry leaves and grasses, and is almost invariably situated on the margin of small pools or sheets of water. Upwards of seventy nests were secured, the number of eggs being always four. (*Macfarlane.*)

MUSEUM SPECIMENS.

Nine in number; one taken on Unimak Island, Behring Sea, August 6th, 1891, by Mr. J. M. Macoun; three at Indian Head, Assa., one at Twelve-mile Lake, Wood Mountain, Assa., three at Banff

10½

and one at Kicking Horse Lake, Alberta, by Mr. W. Spreadborough; two others were taken at Toronto, Ont., by Mr. S. Her ring.

LXXXIII. **STEGANOPUS** VIELLIOT. 1819.

224. **Wilson's Phalarope.**

Steganopus tricolor VIEILL. 1819.

Occasional in Quebec. (*Dionne.*) An accidental visitor in Ontario. (*McIlwraith.*) This is a common species throughout the whole prairie region, breeding by marshy ponds in all suitable places, from Pembina to the Rocky Mountains. Richardson says it does not extend to the north farther than Lat. 55°. Fannin has not seen it and Brooks only once positively identified it in the Fraser River valley, at Chilliwack.

BREEDING NOTES.—This species was first seen May 18th, 1892, at Indian Head, Assa.; but never became common, although it breeds in large numbers in the "sloughs" to the south of Deep Lake. Its habits are much like those of the Sandpipers as it runs up and down the shore like them and swims very little. On June 23rd, a young one had three black stripes on the back, one reaching from the base of the bill to the rump. The rest of the body was bright buff, almost orange. This species is common from Indian Head to Edmonton, Alberta, nesting among short grass in low damp ground near water. Nest, a shallow hole in the ground, lined with a little grass. Young leave the nest as soon as hatched. (*Spreadborough.*) This species breeds at Reburn, Man., Rush Lake, Assa., and Buffalo Lake, Alberta. (*Dippie.*) A number of nests of this species were taken by the writer on June 5th and 6th, 1895, at Twelve-mile Lake, near Wood Mountain, Assa. They contained from three to four eggs each. The nest was a small hole in the ground, generally between bunches of old grass, in a dry spot, either in or on the borders of a marsh. One nest was in a tuft of wild barley (*Hordeum jubatum.*) Quite common at Crane Lake, Assa., and breeding, 1894. Found a nest with eggs nearly hatched on June 7th. Nest on the ground beside a tuft of grass; breeding also in a marshy pond at the east end of Cypress Hills, June 26th, 1894, and at Cypress Lake and Sucker Creek, Assa., June 30th, 1895.

MUSEUM SPECIMENS.

Six fine specimens ; one taken in Alberta by Mr. J. B. Tyrrell, two taken at Indian Head, Assa., two at Twelve-mile Lake, Assa., and one at Edmonton, Alberta, by Mr. W. Spreadborough.

Two sets of eggs taken at Twelve-mile Lake, near Wood Mountain, Assa., June 6th, 1895.

FAMILY XX. **RECURVIROSTRIDÆ** AVOCETS AND STILTS.

LXXXIV. **RECURVIROSTRA** LINNÆUS. 1758.

225. **American Avocet.**

Recurvirostra americana GME. 1788.

A single specimen of this bird was killed at St. John, N.B., and is in Mr. Carnal's collection. (*Chamberlain.*) I am aware of three individuals of this species having been taken at different times at Rondeau, on the north shore of Lake Erie, but these are all I have heard of in Ontario. (*McIlwraith.*)

Quite rare in eastern Manitoba, but common throughout the prairie region—chiefly on the borders of brackish ponds, where it breeds in great numbers. Its chief range is from the International Boundary north to Lat. 54°, but it has been taken as far north as Fort Rae on Great Slave Lake.

BREEDING NOTES.—The breeding range of this species, according to my observation, is from Indian Head to within a few miles of the Rocky Mountains. It was first seen at Deep Lake, Indian Head, Assa., on May 14th, 1892 ; by June 3rd it was breeding in numbers on a long point of land that ran far out into a small lake in Township 16, Range 13. At various times after June 13th, took numerous nests ; one was taken with two eggs, none with more than four. The nest, in nearly every case, was a shallow depression in the sand between three or four stones, and was lined with a few pieces of grass. The chief nesting places are on the borders of alkali ponds, and the nest is always near the water. Breeding generally commences the last week in May, and the young leave the nest as soon as hatched. (*Spreadborough.*)

MUSEUM SPECIMENS.

Eight fine specimens ; all taken at Indian Head, Assa., in the spring of 1892 by Mr. W. Spreadborough.

Many eggs; one set taken by Mr. J. B. Tyrrell at Sounding Lake, Alta., in June, 1886. All the others were taken at Crane Lake, Assa., by Mr. W. Spreadborough, on June 9th, 1894.

FAMILY XXI. **SCOLOPACIDÆ** SNIPES, SANDPIPERS, &C.

LXXXV. **SCOLOPAX** LINNÆUS. 1758.

227. **European Woodcock.**

Scolopax rusticola LINN. 1758.

A single specimen is said to have been killed in the neighbourhood of St. Johns, Newfoundland, in January, 1862. (*Reeks.*) A specimen was shot at Chambly, Quebec, on the 11th November, 1882, by a French Canadian, and was secured by Mr. Brock Willett. It was sent to the late Mr. William Couper to be stuffed, who recorded its occurrence in the *Canadian Sportsman and Naturalist*. (*Wintle.*)

LXXXVI. **PHILOHELA** GRAY. 1841.

228. **American Woodcock.**

Philohela minor (GMEL.) GRAY. 1841.

Several persons stated they had killed Woodcock on the eastern shores of Labrador. (*Packard.*)

This species is common in Nova Scotia and breeds early in spring (*Downs.*) An abundant summer resident in New Brunswick where it also breeds. (*Chamberlain.*) Found breeding at Georgetown, Prince Edward Island, August 17th, 1888; common in Quebec and Eastern Ontario, but more abundant in the western part of the province. It breeds throughout its range. Not so common as formerly in most parts of Ontario.

This species is a rare summer resident in Manitoba, and probably does not extend farther west than Brandon, as no specimens have ever been seen or recorded beyond that place—150 miles west of Winnipeg.

BREEDING NOTES.—A pair nested in a field near Bracebridge, Muskoka, Ont., a few years since, but the species is rare in this district. (*Spreadborough.*) It is becoming scarcer every year in

the St. Lawrence valley. A few birds breed in the vicinity of the lake near MacIntosh Mills, Ont. I met with a nest on June 3rd, 1891. It was made on a little mossy hillock in a small clump of second-growth trees, near a large grove, and at no great distance from the edge of the lake. At that date the eggs—four in number—were greatly incubated. They exactly resembled those of the old-world species. (*Rev. C. J. Young.*) On May 20th, 1895, Mr. Robert Johnson of the Geological Survey found a nest of this species in a piece of swampy ground on the left of the Chelsea road, south of the crossing of the Gatineau Valley Railway. It was on a hummock in the swamp and was merely a depression lined with grass and sheltered by cedar bushes. The locality is about four miles from Ottawa.

MUSEUM SPECIMENS.

Two specimens, one presented by Dr. Charles Saunders, the other purchased in 1885 with the Holman collection.

LXXXVII. **GALLINAGO** LEACH. 1816.229. **European Snipe.**

Gallinago gallinago (LINN.) LICHT. 1854.

One received from Dr. Paulsen in 1845, but the species has been so often observed in Greenland that it may very likely breed there. (*Arct. Man.*) This species and the next are, according to Winge (*Greenland Birds*, p. 176) about equally numerous in Greenland. Neither is common. He thinks they may perhaps breed.

230. **Wilson's Snipe.**

Gallinago delicata (ORD) A. O. U. LIST. 1886.

A common summer migrant and breeds in Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, and abundantly on all the islands in the Gulf of St. Lawrence, as well as in Quebec and eastern Ontario. Spreadborough found it breeding in a marsh at Moose Factory, James Bay, and at Great Whale River, Hudson Bay, where he saw one with a young brood in July, 1896.

In the west, it is found throughout the whole prairie region, especially in all marshes in the wooded country, but never in considerable numbers. Seldom more than two pairs are seen in the

same locality in summer. This species is found in British Columbia, from the International Boundary to Alaska, and on Vancouver Island, where it breeds, and according to Brooks a few winter on Lake Okanagan, B.C. Both Turner and Nelson report it of wide distribution in Alaska, and Macfarlane found it breeding on the Anderson River.

BREEDING NOTES.—A few pairs still breed in the county of Leeds, Ont. Early in June, 1892, a nest with four eggs was obtained at "Black Pond" near Brockville; on the 9th, June 1896, I saw one of these birds perched on a stump in a wet meadow; no doubt the female was nesting in the vicinity. The place where I have noticed this species breeding most commonly was on the Magdalen Islands. There it may still be said to be plentiful. I obtained three eggs, incubated, early in June, 1897. It breeds principally in boggy places not far from the sea, and in the breeding season is quite noisy and soon makes its presence known. The nest on the Magdalen Islands is not, as a rule, placed in the wettest part of the bog but near the edge of the growth of spruce, where a stunted tree struggles to live here and there in the shaking bog. Alongside one of these, or even under a branch, a nest may be found, in which respect as far as the selection of a breeding-site goes, it differs somewhat from its very near relative, the European Snipe. (*Rev. C. J. Young.*) I am informed by Mr. John Burk, a farmer near Rondeau, Lake Erie, and an accurate observer, that he has of late years found several nests of this species near the marsh. (*W. Saunders.*)

The favourite haunts of this bird are the open grassy sloughs or bogs which intersect Manitoba. The position of the only nest of this species that I found was in a slightly-elevated tussock or sod in the middle of a wide muskeg. The nest consisted of a slight hollow, with a few straws for lining and was raised only a few inches above the water. This was in the third week in July, and by the 27th of that month the four young ones were hatched and immediately left the nest. (*Seton-Thompson.*)

In August, 1894, the writer saw a female and young birds of this species in the marsh at St. Patrick's Street bridge, Ottawa, Ont.; early in May, 1890, he found a nest beside a log in a small bog close to the Canadian Pacific Railway water-tank at Revelstoke, B.C. The nest was close to the water and any one walking along the railway could see the bird, but she hatched out

her young and led them off in safety. Another nest was found in a bog a little south of Donald in the Columbia valley, B.C., in July, 1885; this contained four eggs almost incubated. Breeding at east end of Cypress Hills, Assa., on June 24th, 1894. Young ones able to fly. Mr. Fannin writes that the eggs of this species were taken near Enderby, south of Shuswap Lake, B.C., May, 1891, by Mr. De Blois Green.

This species is not particularly numerous in the Anderson River country, as we found comparatively few nests. I may here remark that the nests of all the snipes and sandpipers are much alike in composition, number of eggs, and situation. (*Macfarlane.*)

MUSEUM SPECIMENS.

Four specimens; one taken near Ottawa, Ont., by Mr. S. Herring, in 1886; two taken at Banff, Rocky Mountains, and one at Edmonton, Alberta, by Mr. W. Spreadborough.

We have a few eggs in the collection. One received from the Rev. C. J. Young, taken on the Magdalen Islands, June 21st, 1897; the others taken in Assiniboia and received from Mr. Raine.

230.1. **Greater Snipe.**

Gallinago major (GMEL.) KOCH. 1816.

Accidental in North America. Taken in Hudson Bay. (*Coues, Auk, vol. XIV., p. 209, 1897.*)

LXXXVIII. **MACRORHAMPHUS** LEACH. 1816.231. **Dowitcher. Red-breasted Snipe.**

Macrorhamphus griseus (GMEL.) LEACH. 1816.

Occasional in Greenland. One sent from Fiskenaes to Copenhagen in 1824. (*Arct. Man.*) Rare at Fort Chimo, Ungava. Common in southern and western portions of Labrador. (*Turner.*) A summer migrant in Newfoundland and breeds. (*Reeks.*) Fort Churchill, Hudson Bay. (*Wright.*) Not uncommon in Quebec. (*Dionne.*) Occurs in small flocks along the Richelieu River near St. John, Que., but is rarer near Montreal on the St. Lawrence River. (*Wintle.*) A pair was shot at Ottawa, Ont., by Mr. G. R. White, May 22nd, 1890, and a few others recorded. McIlwraith says it is a straggler in Western Ontario.

Its breeding-grounds seem to be to the north and northwest of Hudson Bay.

MUSEUM SPECIMEN.

One taken in Toronto marsh by Mr. S. Herring in 1884.

232. **Long-billed Dowitcher.**

Macrorhamphus scolopaceus (SAY) LAWR. 1852.

This species takes the place of *M. griseus* from Manitoba westward. Although not common in eastern Manitoba it becomes abundant to the west, and during migration this species is very plentiful throughout the prairie region. As it arrives in great numbers on the prairie in August its breeding-places are likely south of the Arctic Circle. Besides covering much country east of the mountains it is very abundant in Alaska, breeding as far north as Point Barrow, where Murdoch says it is not common in the breeding season. It is very rare in the Rocky Mountains, only one being taken at Banff in 1891. Both Lord and Fannin say it breeds in British Columbia, and Brooks found it common in autumn in the Fraser valley. Spreadborough found it in large flocks at Stubb Island, west coast of Vancouver Island, August, 1893.

BREEDING NOTES.—This species arrives quite early at the Yukon mouth, often by the 10th May. Towards the end of the month it is plentiful and is beginning to breed. On June 16th, while crossing a tussock-covered hill-top, over a mile from any water, I was surprised to see a female of this species flutter from her nest about six feet in front of me and skulk off through the grass with trailing wings and depressed head for some ten or fifteen yards. She stood, nearly concealed by a tuft of grass, and watched me as I pillaged her nest of its treasures. The eggs, four in number, rested in a shallow depression formed by the bird's body in the soft moss, and without a trace of lining. Other nests taken were of the same character. By the last of July the young birds can fly with their parents. (*Nelson.*) A few nests of this species were taken between the 21st June and July 1st. The eggs were always four in number. (*Macfarlane.*)

MUSEUM SPECIMENS.

Seven specimens taken at Indian Head, Assa., and Edmonton and Banff, Alta., by Mr. W. Spreadborough.

LXXXIX. **MICROPALAMA** BAIRD. 1858.233. **Stilt Sandpiper.***Micropalama himantopus* (BONAP.) BAIRD. 1858.

Not common at Cow Head, Newfoundland. One specimen killed in September, 1867. (*Reeks.*) Three seen and one shot at Courtenay Bay, New Brunswick, September 8th, 1881. (*Chamberlain.*) Fort Churchill, Hudson Bay. (*Wright.*) A number of specimens have been taken in Ashbridge Bay, Toronto, Ont., one as late as July 28th, so that it is possible a few pairs may breed.

It seems to be rare in Manitoba, as Seton-Thompson records only one positive capture, but Spreadborough found it common at Indian Head, Assa., in September, 1891. In the following spring it was first seen on the 18th May, and had disappeared by June 5th. Dr. Coues obtained specimens in a pond near the eastern base of the Rocky Mountains on August 16th, 1874, in Lat. 49°. Sir John Richardson says it is not uncommon up to the 60th parallel and still farther north. It is frequent in the interior in the breeding season, and resorts to the shores of Hudson Bay in autumn, before going south. It was found by Ross on the Mackenzie as far north as Fort Simpson, but rare. Our records of this species are scanty, but its chief breeding-haunts are likely along the southwest side of Hudson Bay.

BREEDING NOTES.—The Stilt Sandpiper was fairly abundant on the shores of Franklin Bay, where a number of nests with eggs and young were discovered. It is, however, very rare in the interior, only one nest being taken at Rendezvous Lake on the borders of the wooded country east of Fort Anderson. (*Macfarlane.*)

MUSEUM SPECIMENS.

Of this species there are six specimens; one taken in Toronto marsh in 1875 by Mr. S. Herring, and the others at Indian Head, Assa., in May, 1892, by Mr. W. Spreadborough.

XC. **TRINGA** LINNÆUS. 1758.234. **Knot. Grey-back. Robin Snipe.***Tringa canutus* LINN. 1758.

Rare in the south of Greenland but often met with in the north; believed not to breed below Lat. 68°; reported to have

been found breeding on Melville Peninsula and Parry Islands. (*Arct. Man.*) A migrant in Newfoundland; a rare winter visitant in Nova Scotia and New Brunswick. Rare in Quebec and Ontario. On the 4th June, 1890, Mr. Ernest White, of Ottawa, Ont., obtained eight specimens out of a flock of about seventy, but, strange to say, it has never been taken since. A few specimens are recorded from Hamilton, Ont., by Mr. McIlwraith. Dr. Coues records taking a few specimens in immature plumage at Henley Harbour, Labrador, in 1860. A tolerably common migrant in Manitoba but rare farther west. It is common in summer along the shores of the Arctic Sea and on the islands to the north. In Alaska it is common in some localities and rare in others. According to Fannin it is abundant along the coast of British Columbia during migration.

BREEDING NOTES.—The Knot breeds on Melville Peninsula and in other parts of Arctic America, and also in Hudson Bay, down to Lat. 58°. It lays four eggs in a withered tuft of grass. (*Richardson.*)

Major Henry W. Feilden, naturalist to the Nares Arctic Expedition, says he was not so fortunate as to obtain the eggs of the Knot during his stay in the Polar regions, though it breeds in some numbers along the shores of Smith Sound and the north coast of Grinnell Land. On July 30th, 1876, however, three seamen walking by the border of a small lake, not far from the ship, came upon an old bird accompanied by three nestlings, which they brought to Mr. Feilden. Lieut. A. W. Greely, U.S.A., commander of the late expedition to Lady Franklin Sound, succeeded in obtaining the long-sought-for egg of this species. The specimen of the bird and egg were obtained in the vicinity of "Fort Conger," Lat. 81° 44' N. The egg was of a light pea-green colour, closely spotted with brown in small specks about the size of a pin's head. (*The Auk, vol. II., pp. 312-313.*)

235. **Purple Sandpiper.**

Tringa maritima BRÜNN. 1764.

Occurs in winter off the coast of Greenland, if the sea be open; breeds on Melville Peninsula and west side of Davis Strait. (*Arct. Man.*) Common in winter, and a few breed at Ivigtut, Greenland. (*Hagerup.*) This species abounds on the Atlantic

coast to the north and south of Labrador in spring and fall. (*Turner.*) Only one was procured or seen at Prince of Wales Sound, Hudson Strait, in 1885. (*Payne.*) A summer migrant, but rare, at Cow Head, Newfoundland; an uncommon winter resident on the Nova Scotia coast; not rare on the coast of New Brunswick in winter; occasional at Beauport, Montreal, and other points on the River St. Lawrence. Occasional at Ottawa, Ont.,—one taken by Mr. N. Forbes on the Rideau River, October 28th, 1885, and another by Mr. G. R. White. The same year one specimen was taken at Hamilton, Ont., by Dr. K. C. McIlwraith, and a few others since. It has never been noticed in the west, and seems to be solely a northeastern bird.

BREEDING NOTES.—This species breeds so far to the north that we can add nothing to what Sir John Richardson said so many years ago—that it breeds abundantly on Melville Peninsula and the northern shores of Hudson Bay.

236. Aleutian Sandpiper.

Tringa couesi (RIDGW.) HARTLAUB. 1883.

This bird nests throughout the Aleutian chain from the westernmost island east to the Shumagin group, south of Aliaska. In its autumnal wanderings it extends all along the eastern shore of Behring Sea and even along the coast of the Arctic Sea. Its winter range includes the Aleutian Islands and the coast of Kadiak, with the mainland to Sitka and probably farther south. (*Nelson.*) This species arrives at St. Michael early in May, and is then strictly littoral-maritime, resorting to the larger boulders and rocky shelves covered with sea-weed, among which the birds search for slugs and other marine worms. (*Turner.*)

BREEDING NOTES.—The Aleutian Sandpiper arrives at St. Michael early in May of each year and in considerable numbers, being generally, on its arrival, in the dark plumage, which is changed for that of summer by the first of June in this locality. By the middle of June it is rare to see one of these birds in the winter plumage. On assuming the summer plumage, their habits are entirely changed. They build their nests on the dryer places of the marshy ground, and are usually seen singly or in pairs. The nest is comfortably made of dry grasses and a few feathers, placed on a dry tuft of grass, perhaps, surrounded by water.

The young are able to leave the nest by the 10th of July. The number reared in a nest is four or five. They follow their parents until they assume the winter plumage, in the latter part of August or September or even later. (*Turner.*)

MUSEUM SPECIMENS.

Two specimens taken by Mr. J. M. Macoun in Behring Sea in 1891—one on St. Matthew Island and the other on Unimak Island.

237. **Thick-billed Sandpiper. Prybiloff Sandpiper.**

Tringa ptilocnemis COUES. 1873.

Mr. H. W. Elliott, the discoverer of this species, speaking of its range, says that besides the Prybiloff Islands, he found it just as abundantly on St. Matthew Island in 1874, 200 miles to the north, where it was breeding in large numbers as it does on the Prybiloffs. A single pair was found nesting (by myself) on the south shore of St. Lawrence Island in June, 1881. Krause, in winter, secured three specimens at Portage Bay, which is on the mainland near the end of Chilcat Peninsula, but saw no large flocks until April, so that it is probable they winter south along the coast of Alaska and possibly British Columbia. (*Nelson.*)

BREEDING NOTES.—I may say that this is the only wader that incubates on the Prybiloff Islands, with the marked exceptions of a stray couple now and then of *Phalaropus hyperboreus*. It makes its appearance early in May and repairs to the dry uplands and mossy hummocks, where it breeds. The nest is formed by the selection of a particular cryptogamic bunch. It lays four darkly-blotched pyriform eggs, and hatches them within twenty days. The young come from the shell in a thick, yellowish down, with dark-brown markings on the head and back, getting the plumage of their parents and taking to wing as early as the 10th of August. (*Elliott.*)

MUSEUM SPECIMENS.

One pair taken on St. Lawrence Island, Behring Sea, by Mr. J. M. Macoun, on August 12th, 1891.

238. **Sharp-tailed Sandpiper.**

Tringa acuminata (HORSF.) SWINH. 1863.

On September 16th, 1877, near St. Michael, I had the pleasure of securing a handsome young female of this bird, thus adding this

species to our fauna. Afterwards it was found to be the most common species of snipe at St. Michael, frequenting the borders of brackish pools and tide-creeks in company with other species. At Port Clarence and Kotzebue Sound, single specimens have been taken and these, with those taken by the writer at St. Michael, include all the specimens up to date. (*Nelson.*) Taken at Massett, Queen Charlotte Islands, B.C., Dec. 27th, 1897, by Rev. J. H. Keen. (*Fannin.*) A species of Eastern Asia and evidently breeding near the mouth of the Yukon.

239. **Pectoral Sandpiper. Jack-snip.**

Tringa maculata VIEILL. 1819.

One was received from Greenland in 1851 by the Copenhagen Museum, and two others were sent there from near Disco in 1859. (*Arct. Man.*) Occasional in Greenland. Several skins have been taken since 1860. (*Winge.*) A common migrant along the whole Atlantic Coast from Cape Chudleigh south to New Brunswick, and in Quebec, Ontario and Manitoba, but rare farther west. Only one specimen was seen by Mr. Spreadborough at Indian Head, Assa., in the spring of 1892, and further west, along Milk River, a female was shot, July 16th, 1895.

Nelson and Murdoch say that it is common in Alaska, breeding in numbers as far north as Point Barrow. North of the Mackenzie River and along the Anderson River, farther east, it is quite rare, as Macfarlane saw very few and obtained no nests. Fannin and Brooks report that it is not common in the migrations in British Columbia. On Stubb Island, on the west coast of Vancouver Island, Spreadborough killed ten at one shot in August, 1893.

BREEDING NOTES.—This species arrives at Point Barrow about the end of May or early in June, and frequents the small ponds and marshy portions of the tundra along the shore, sometimes associated with other small waders, especially with the Buff-breasted Sandpiper, on the high banks of the Nunava. They begin pairing soon after their arrival, and are frequently to be seen chasing each other in the air with a loud chatter. The nest is always built in the grass, with a decided preference for high and dry localities, such as the banks of gullies and streams. It is sometimes placed at the edge of a small pool, but always in grass and in a dry place, never in the black clay and moss, like the

Plover and Buff-breasted Sandpiper, or in a marsh like the Phalaropes. All the complete sets contained four eggs. (*Murdoch.*)

MUSEUM SPECIMENS.

Two specimens ; one taken at Ottawa, Ont., in October, 1884, by Mr. Ernest White, the other shot by Mr. W. Spreadborough on Milk River, Alberta, July 16th, 1895.

240. **White-rumped Sandpiper.**

Tringa fuscicollis VIEILL. 1819.

Believed by Holbœll to breed near Julienshaab, Greenland, where both old and young birds have been seen. (*Arct. Man*) A few skins taken in Greenland since 1840. Perhaps a few breed. (*Winge.*) A common migrant along the whole Atlantic coast and Gulf of St. Lawrence as well as the river up to Montreal, becoming scarcer in Ontario and increasing again in Manitoba where it is common as a migrant. A few seen as far west as Crane Lake, Assa. A few must breed around Indian Head, Assa., as they were observed there from May 9th to July 1st, 1892, when Spreadborough left. Sir John Richardson says this species is not infrequent on the shores of the small lakes that skirt the Saskatchewan plains. Murdoch records the shooting of two birds of this species at Point Barrow which is the only Alaskan record. Payne says they occur in large flocks in late summer at Cape Prince of Wales, Hudson Strait, but do not breed. Both Spreadborough and Turner found them in large numbers in Ungava Bay, Labrador, in the autumn, and Macfarlane found a few breeding on the shores of Franklin Bay, Arctic Sea. Their chief breeding-ground would seem to be north of Hudson Bay and northwesterly along the shores of the Arctic Sea to the mouth of the Mackenzie River.

BREEDING NOTES.—Several nests of this Sandpiper were taken on or near the Arctic coast of Franklin Bay. One taken July 3rd contained four eggs with very large embryos. Another discovered on the following day held but three eggs. A third found in the Barren Grounds on the 29th June was, like the rest, a shallow depression in the ground, lined with a few decayed leaves, containing four eggs, also having very large embryos. A fourth, on the banks of a small river, held four eggs. (*Macfarlane.*)

MUSEUM SPECIMENS.

A pair, taken in Toronto marsh by Mr. S. Herring, in October, 1884.

241. **Baird's Sandpiper.**

Tringa bairdii (COUES) SCLAT. 1867.

Accidental at Digby, Nova Scotia. (*Gilpin.*) Rare visitor at Montreal, one shot out of a flock of Semipalmated Sandpipers, September 17th, 1892. (*Wintle.*) Prior to 1886, only one specimen of this species had been recorded in Ontario. One specimen was taken on the 23rd of August, 1886, and two more on the 1st of September. These four are the only specimens known to the writer. (*McIlwraith.*)

This is a common migrant in Manitoba and westward to the Rocky Mountains. It was first seen at Indian Head, Assa., on May 9th, 1892, was common by the 16th and disappeared on the 2nd of June. Rather rare in Alaska, but more common as we proceed to the north. Nelson found it at places along the Arctic coast, north of Kotzebue Sound and at Point Barrow in August, 1881. Brooks found it abundant at Sumas Lake, on the Lower Fraser River, B.C., in the fall, but rare in the spring, on account of the inundation of their feeding-grounds. Spreadborough shot three out of a flock of ten on the 23rd August, 1893, on Stubbs Island, west coast of Vancouver Island. Mr. E. Anderson took it on Lake Okanagan, B.C., in October, 1897.

BREEDING NOTES.—On the 24th of June, 1864, a nest containing four eggs was found in the Barren Grounds in a swampy tract between two small lakes. It was composed of a few decayed leaves, placed in a small cavity in the ground shaded with grass. It is very uncommon in the north, though nests were discovered. (*Macfarlane.*) This species arrives at Point Barrow about May 30th. After the tundra becomes clear of snow it retreats from the beach and is especially to be looked for on dry grassy portions of the tundra. It is never very common and is always solitary or in pairs. The nest was always well hidden in the grass and never placed in marshy ground or on the bare black portions of the tundra; it consists merely of a slight depression in the ground, thinly lined with dried grass. All the eggs we found were obtained from the last week in June to

the first of July, a trifle later than the other waders. (*Murdoch.*) There is no doubt that the breeding-ground of this species extends from the west side of Hudson Bay along the Arctic coast to Point Barrow. Spreadborough saw three on a small island in James Bay on June 16th, 1896, and believes they were breeding.

MUSEUM SPECIMENS.

Nine specimens ; seven taken at Indian Head, Assa., in May, 1892, and two on Stubbs Island, west coast of Vancouver Island, August 23rd, 1893, by Mr. W. Spreadborough.

242. **Least Sandpiper.**

Tringa minutilla VIEILL. 1819.

One shot in the spring of 1867 on Noursoak Peninsula, Greenland. (*Arct. Man.*) One taken at Disco Fjord, 1878. (*Winge.*) A common summer migrant along the whole Atlantic coast, including the Gulf of St. Lawrence, and doubtless breeds in small numbers in eastern and northern Labrador as well as on Anticosti and the Magdalen Islands. It is a common migrant in Quebec and Ontario, and extends as a migrant across the continent to the Pacific coast, where it was seen in large flocks on Stubbs Island, west of Vancouver Island, 1893. It is also found in the interior of Alaska, and may be said to be a bird of general distribution, although very little is known of its breeding habits. Mr. Dippie collected specimens at Reaburn, Man., on June 15th, 1893, and believes a few pairs breed there.

BREEDING NOTES.—Audubon, Vol. V., p. 282, states that he found the nest and eggs July 20th, 1833, in Labrador. Turner believes that a few pairs breed at the mouth of the Koksoak River, Ungava Bay. Spreadborough believes it breeds in James Bay and at Indian Head, Assa. Dr. Coues suspects that it breeds at Turtle Mountain, on the boundary of Manitoba. The writer found young birds on Anticosti, near Southwest Point, in August, 1883, and very young birds at the east end of the Cypress Hills, Assa., on August 2nd, 1880. One nest was taken on Sable Island last summer (1899) by Mr. Boutillier, superintendent of life-saving stations.

This species was found breeding abundantly at Fort Anderson, on the borders of, as well as in, the Barren Grounds, and on the

near Arctic coast. (*Macfarlane*.) I met with this species on the Magdalen Islands, and was successful in finding its nest there on June 22nd, 1897. We were driving along the edge of the sand-hills, towards East Cape, on that date. When passing a grassy flat near salt water, a bird of this species rose into the air. I hid myself, and soon had the satisfaction of seeing the bird alight in a dry place in the salt meadow. I at once walked almost to the nest, and the bird fluttered away from the four eggs at my feet. They lay with the pointed ends together in a small nest of dried grass, slightly concealed. Incubation had progressed about a week. I noticed a small flock of these birds at the Magdalen Islands on July 1st, 1897. They were running about, among bunches of sea-weed, feeding. It occurred to me these were possibly non-breeding birds, or else males, the females nesting in the neighbouring bog. (*Rev. C. J. Young*.)

MUSEUM SPECIMENS.

Six specimens, taken at widely separated localities. Three, at Indian Head, Assa., in May, 1892; two on Stubbs Island, off the west coast of Vancouver Island, B.C., August, 1893, by Mr. W. Spreadborough; and one on Unimak Island, Behring Sea, by Mr. J. M. Macoun, in August, 1891.

242.1. **Long-toed Stint.**

Tringa damacensis (HORSF.) SWINH. 1863.

Asia, breeding toward Arctic coast; accidental on Otter Island, Behring Sea, Alaska. (*A. O. U. List*.)

243. **Dunlin.**

Tringa alpina LINN. 1758.

Bird of passage. Taken occasionally in Greenland. (*Winge*.) Accidental in eastern North America, west side of Hudson Bay. (*A. O. U. List*.)

243a. **Red-backed Sandpiper.**

Tringa alpina pacifica (COUES) A. O. U. LIST. 1886.

A rare migrant along the Atlantic coast but commoner in Quebec and Ontario. According to Seton-Thompson it is tolerably

common in Manitoba, but the writer has never seen it nor heard of its being seen west of that province. It seems to be common in summer on Hudson Bay and along the Arctic coast generally, especially in northern Alaska, where it breeds in great numbers, but never far from the sea. Both Brooks and Fannin speak of this species as being common on the British Columbia coast in spring and fall.

BREEDING NOTES.—This bird breeds plentifully on the Arctic coast. Its eggs are oil-green marked with irregular spots of liver-brown, of different sizes and shades, confluent at the obtuse end. (*Richardson.*) This species is common at Point Barrow, Alaska, and breeds abundantly, although the nest is exceedingly hard to find as the nesting birds are very wary and use every possible stratagem to mislead one when looking for the eggs. It arrives about the end of May. Some of them, perhaps, arrive paired, but the majority are pairing soon after their arrival, to judge by their actions. As the tundra gradually clears of snow they become more scattered and spread further inland, deserting the shores of the beach lagoons, although they hardly confine themselves as much to the dry portions of the tundra as Baird's Sandpiper is in the habit of doing. The nest, which is like that of all the rest of the waders, is always placed in the grass, sometimes in dry and sometimes in rather swampy places, but never like the Phalaropes, on the black tundra or on the isthmuses between the ponds. Both parents share in the work of incubation, though we happened to obtain more males than females with the eggs. (*Murdoch.*)

In early seasons the first of these birds reach the Yukon mouth and shores of Norton Sound by the 10th of May, and by the 25th of that month they are in full force. They arrive in full breeding plumage, and are generally in small flocks, which soon break up and the birds scatter in twos and threes over the moss and grass-grown tundra to pair and attend to their summer duties. They nest from the first of June to the first of July, and in 1877, I secured a set of four fresh eggs on the 3rd of the latter month. They generally choose some dry knoll, or other slight elevation, overlooking the neighbouring lakes and pools. Here, upon a bed of last year's grasses, but without the trouble of arranging a formal nest, the female deposits three or four large eggs of a pale greenish varying to pale brownish clay colour, with dull chocolate and umber-brown spots and blotches. (*Nelson.*)

MUSEUM SPECIMEN.

One specimen taken in Toronto marsh by Mr. S. Herring.

244. **Curlew Sandpiper.**

Tringa ferruginea BRÜNN. 1764.

Occasional in Eastern North America and Alaska.

Very rare in Nova Scotia One purchased on Halifax market. (*Downs.*) Seen at Halifax in October 1864. (*Gilpin.*) I had the good fortune to capture a male in full breeding plumage, the only one seen, at Point Barrow, on June 6th, 1883. It was in company with a good sized flock of *Tringa maculata*. (*Murdoch.*)

Mr. J. H. Fleming of Toronto, Ontario writes that Mr. Ernest Seton-Thompson identified a specimen in the old Toronto Gun Club as this species. The bird was taken at Toronto.

LXXXV. **EURYNORHYNCHUS** NILSSON. 1821.245. **Spoon-bill Sandpiper.**

Eurynorhynchus pygmæus (LINN.) PEARSON. 1836.

Accidental on the coast of Alaska. The presence of this little Sandpiper in the list of Birds of Alaska is due to the capture of a single specimen at Chloris Peninsula, during the summer of 1849 by the captain of the British ship *Plover*. Chloris Peninsula is a sandy spit which extends out into the head of Kotzebue Sound and is covered with pools of water. (*Nelson.*)

LXXXVI. **EREUNETES** ILLIGER. 1811.246. **Semipalmated Sandpiper.**

Ereunetes pusillus (LINN.) CASS. 1860.

A common fall migrant along the whole Atlantic coast and Gulf of St. Lawrence. In Quebec and Ontario it is equally abundant as a migrant, and also in Manitoba and westward, at least as far as the Rocky Mountains.

In the spring of 1892 Mr. W. Spreadborough found the first birds at Indian Head, Assa., on May 16th. He remained there until July 1st and they were still there, so that he believes they breed there. On May 25th, 1895, a pair was seen at a pool on the prairie near Old Wives Lake and later, on June 6th, a large

number were seen and a few specimens taken at Twelve-mile Lake, near Wood Mountain, Assa.

Their great numbers in the east during the migrations and their late and dilatory spring movement in the west, point to their chief breeding grounds being on the southern and western shores of Hudson Bay, between James Bay and York Factory, as here there is a low marshy shore just suited for nesting. The Severn, where Hutchins found them breeding, is in this district. Westward of Hudson Bay it extends to Point Barrow in Alaska, where Murdoch says it arrives in large flocks in July and leaves in August. All came from the east and the specimens taken were young birds.

One male taken at Ducks, near Kamloops, B.C., August 18th, 1889, by Clark P. Streator. Not uncommon in the Lower Fraser valley. (*Brooks.*)

BREEDING NOTES.—Occurs sparingly at the mouth of the Koksoak River, Ungava Bay, Labrador, and from its actions indicated breeding. Audubon Vol. V., 278, states that he found them dispersed in pairs and having nests early in June in Labrador. (*Turner.*) Mr. Hutchins in 1770 writes as follows:—"This species arrives at Severn River (about 150 miles south east of York Factory) by the middle of May in large flocks, builds a nest early in June of withered grass, and lays four or five black and white spotted eggs. Towards the autumn it has a chirruping note, and in September it retires to the southward." (*Richardson.*)

Fairly abundant in the Barren Grounds, but more so on the shores of Franklin Bay, where a number of specimens with eggs were procured. (*Macfarlane.*)

MUSEUM SPECIMENS.

Nine specimens. One, taken at Toronto, purchased with the Holman collection; two at Indian Head, Assa., in June, 1892; two at Thirty-mile Spring and two at Twelve-mile Lake, Wood Mountain, June 3rd and 6th, 1895; one at Crane Lake, Assa., June 12th, 1894; and one at Banff, Rocky Mountains, in May, 1891, all by Mr. W. Spreadborough.

247. Western Semipalmated Sandpiper.

Ereunetes occidentalis LAWR. 1864.

As soon as the snow disappears on the low ground about Norton Sound, Alaska, these little birds arrive on the shore of Behring

Sea, in the vicinity of St. Michael and the Yukon mouth. It frequents the Arctic coasts of Alaska in addition to being found throughout the interior along streams where suitable flats occur. (*Nelson.*) Abundant in all the Aleutian Islands and at St. Michael outnumbers all other waders. (*Turner.*) A male taken at Ducks, near Kamloops, B.C., August 22nd, 1889. (*Streator.*) An abundant resident; it is found throughout the year at Victoria, Vancouver Island. (*Fannin.*) Abundant in the fall at Sumas Lake, in the Lower Fraser valley. (*Brooks.*)

BREEDING NOTES.—This species arrives at St. Michael by the middle of May. About the first of June it begins to build its nest among the dry mosses found on the low grounds. The nest is only a slight depression in the moss, containing a few feathers. Four or five eggs are laid. The male assists in incubating, as the first specimen which I obtained fluttered from the nest as if it were wounded. His fluttering wings, low piping note, and limping gait caused me to detect the nest almost at my feet. (*Turner.*) By the 1st of June, and earlier in some seasons, they have eggs, and in one instance young were found as early as June 7th. Their nests are usually on the drier part of the tundra, generally on a mossy hummock or slight swell. A sheltering bunch of dwarf willow or a few grass stems, in a tuft, form a favorite cover. The eggs are sometimes placed on a thin layer of dead grass-stems, or willow leaves, loosely arranged, but very commonly the mat of dry grass or willow leaves afforded by the spot chosen serves as the nest without special arrangement. (*Nelson.*)

MUSEUM SPECIMENS.

Two specimens—a male and female, both taken on Stubbs Island, on the west coast of Vancouver Island, August 29th, 1893, by Mr. W. Spreadborough.

LXXXVII. **CALIDRIS** CUVIER. 1799-1800.

248. **Sanderling.**

Calidris arenaria LINN.) LEACH. 1816.

Scarce, and said not to breed further south in Greenland than Lat 68°, but the young have been obtained at Godthaab; breeds at Sabine Island and Parry Islands. (*Arct. Man.*) Winge reports it from several localities in Greenland. It is said to be a much commoner migrant in the autumn than in the spring on the

whole Atlantic coast, the Gulf of St. Lawrence, Quebec and Ontario along the rivers and lakes. It is also a common migrant in Manitoba. It was found there as late as June 12th, 1881, on the shore of Lake Manitoba by the writer, and in the autumn as early as the beginning of August by Nash *vide* Seton-Thompson. It doubtless breeds on Lake Manitoba or Lake Winnipegosis in small numbers. It has seldom been noticed by us further west than Indian Head, Assa., and it was rare here in the spring of 1892, and at Thirty-mile Spring, near Wood Mountain, Assa., June 3rd, 1895.

It occurs all around Hudson Bay and along the Arctic coast, being recorded by Ross, Richardson and Macfarlane. Neither Nelson, Murdoch nor Turner found it in Alaska, but Dall says it is very common at Nulato, and on the Yukon to the sea. Specimens have, however, been taken at Sitka, in Alaska, and it has been taken at Port Simpson, British Columbia. Brooks says it is rare in the lower valley of the Fraser.

BREEDING NOTES.—This bird breeds on the coast of Hudson Bay as low as the 55th parallel. Mr. Hutchins informs us that it makes its nest in the marshes rudely of grass, and lays four dusky-colored eggs spotted with black, incubation commencing in the middle of June. It feeds on marine insects. (*Richardson.*) On June 29th, 1863, we discovered a nest of this species (the only one at the time known to naturalists) on the Barren Grounds, about ten miles west of Franklin Bay. The nest was composed of withered hay and leaves placed in a small depression in the ground. It contained four eggs which were quite fresh. (*Macfarlane.*) Parry found them breeding on the North Georgian Islands, and they undoubtedly breed along the barren Arctic coast east of Point Barrow. (*Nelson.*) Mr. W. Spreadborough observed a pair on a small island in James Bay on the 16th of June, 1896, which were doubtless breeding. As the mouth of the Severn River, where Hutchins found it breeding, is 500 miles to the north-west, this bird probably breeds on the west and south shores of Hudson Bay and on some of the large interior lakes.

MUSEUM SPECIMENS.

Four specimens ; one taken in Toronto by Mr. S. Herring, two at Indian Head, Assa., in May, 1892, and the fourth at Thirty-mile Spring, near Wood Mountain, June 3rd, 1895, by Mr. W. Spreadborough.

LXXXVIII. **LIMOSA** BRISSON. 1760.249. **Marbled Godwit.***Limosa fedoa* (LINN.) SABINE. 1823.

This species is only a periodical visitor in Newfoundland, especially in the autumn; very rare in Nova Scotia and New Brunswick; rare in Quebec and Ontario, and always as a migrant. It is a common summer resident from eastern Manitoba to the Rocky Mountains, seeming to prefer the margins of brackish lakes and pools. It is more plentiful north of the Canadian Pacific Railway than south of it, and is particularly abundant on the plains south of Battleford, Alberta.

First seen at Indian Head, Assa., April 29th, 1892; after this they kept arriving up to June 24th, when I saw a number in a large marsh. They appeared to be breeding, but I failed to find any nests. (*Spreadborough.*) Fannin reports this bird from southern British Columbia, in the Similkameen district, and says it breeds east of the Coast Range.

BREEDING NOTES.—We have never succeeded in finding the eggs of this species, but it breeds abundantly in the prairie region between Lat. 51°–52°.

MUSEUM SPECIMENS.

One specimen purchased with the Holman collection; three taken at Indian Head, Assa., May, 1892; and two taken at Medicine Hat, May, 1894, by Mr. W. Spreadborough.

250. **Pacific Godwit.***Limosa lapponica baueri* (NAUM.) STEJN. 1885.

This bird was found by Dall to be plentiful at the Yukon mouth; found by me common at Unalaska and St. Michael in the early part of May. (*Nelson.*) Met with as a migrant on the Aleutian Islands when on their way to the north. It doubtless breeds at St. Michael, but I did not obtain eggs. (*Turner.*) This species only occurs at Point Barrow as a straggler after the breeding season. (*Murdoch.*)

BREEDING NOTES.—This species frequents open grassy parts of the country about St. Michael, and is quick to protest against

any invasion of its territory. Its nest was not found, but Dall informs us that it lays two light olivaceous spotted eggs in a rounded depression in a sedge tussock, lined with dry grass. (*Nelson*,)

251. **Hudsonian Godwit.**

Limosa hæmastica (LINN.) COUES. 1874.

This species is a common migrant in spring and fall in Newfoundland; an autumn migrant in Nova Scotia; occasionally in both spring and fall in New Brunswick; rather rare in Québec but more so in Ontario. Its line of migration is from the Atlantic coast to Hudson Bay, as it is frequently taken at Churchill and York Factory. It is rare in Manitoba and Assiniboia, and none remain to breed. It was first seen by Spreadborough at Indian Head, Assa., on May 11th, 1892, afterwards a few stragglers passed north but none remained. Richardson says this species breeds abundantly on the Barren Grounds and on the shores of the Arctic Sea and migrates southward in the autumn.

One single specimen from Nulato and two from the Yukon mouth are all the records we have of the occurrence of this species in Behring Sea. A few have been taken in other parts of Alaska but only as stragglers. (*Nelson*.)

BREEDING NOTES.—This species is not very common on the Barren Grounds, although several nests were taken near the post on the Lower Anderson River. The nests were all mere depressions or small holes scooped in the earth, thinly lined with decayed leaves, and in almost every instance they contained four eggs. (*Macfarlane*.)

MUSEUM SPECIMENS.

One specimen taken on Toronto Island in 1865, purchased with the Holman collection, and two taken by Mr. W. Spreadborough at Indian Head, Assa., in May, 1892.

252. **Black-tailed Godwit.**

Limosa limosa (LINN.) RIDGW. 1885.

Occasional in Greenland.—*Winge*.

LXXXIX. **TOTANUS** BECHSTEIN. 1803.254. **Greater Yellow-legs.***Totanus melanoleucus* (GMEL.) VIEILL. 1816.

This species is a common migrant in both spring and fall along the whole Atlantic coast. In the Gulf of St. Lawrence and on the Labrador coast it breeds in some numbers. In Quebec and Ontario it is a common migrant, but there are no records of its breeding. It is an abundant migrant in spring, late summer and fall in Manitoba, but not very common to the west of that province, although taken all across the continent. It was found by Ross as far north as Fort Simpson, on the Mackenzie, and neither Macfarlane nor Richardson found it near the Arctic Sea. A few specimens have been taken on the Pacific coast at Sitka, but no others in Alaska.

An abundant resident along the British Columbia coast in winter; I found it breeding in the summer of 1891 around the lakes at Clinton, B.C. (*Fannin.*) Abundant in the Lower Fraser valley; probably breeds. (*Brooks.*)

BREEDING NOTES.—Audubon, Vol. V., 319, states he found this species breeding in June in Labrador. (*Turner.*) Found in abundance on Anticosti, where it was evidently breeding; about the mouth of the Mingan River it is said to breed regularly. (*Brewster.*) A pair observed on Moose River, northern Ontario, June 7th, 1896; none seen elsewhere that year. Resident on Stubbs Island, west coast of Vancouver Island. Breeding in wet meadows among the woods north of the prairie, and in the foot-hills of the Rocky Mountains. I have seen young, scarcely able to fly, in July. When the old birds are disturbed they will often settle in trees. (*Spreadborough.*)

MUSEUM SPECIMENS.

- Eight specimens. One taken at Toronto purchased with the Holman collection; one taken at Ottawa in May, 1885, by Mr. E. White; one taken at Ottawa by Mr. Fred. Saunders in May, 1892; four taken at Indian Head, Assa., in May, 1892; and one taken at Victoria, Vancouver Island, by Mr. W. Spreadborough in March, 1890.

255. Lesser Yellow-legs.

Totanus flavipes (GMEL.) VIEILL. 1816.

One sent from Greenland to Copenhagen in 1854. (*Arct. Man.*) This is a common spring and autumn migrant in Nova Scotia, New Brunswick, Quebec and Ontario, but rarer than the preceding. Reeks says it is a summer resident in Newfoundland, arriving in May, and leaving in October. Spreadborough observed a number about a small salt marsh on the shore of James Bay on June 15th, 1896, and was sure they were breeding. They have been observed on Hudson Bay at other points, and, no doubt, breed there. Mr. J. M. Macoun saw a pair evidently breeding on Lake Mistassini, Northern Quebec, in 1885. This species is a common migrant in Manitoba and westward through the whole prairie region and is found in the Rocky Mountains and throughout British Columbia as a migrant, though Fannin found it at Burrard Inlet all summer. Spreadborough saw it first at Indian Head, Assa., on April 25th, 1892. By May 1st it was common. A few remained to breed as they were seen up to July when he left. Richardson says:—"This is a very common bird in the North-west Territories, and is seen either solitary or in pairs on the banks of every river, lake and marsh up to the northern extremity of the continent." Previous to going south from Hudson Bay they gather in small flocks on the shores.

On the Lower Yukon, in Alaska, this bird is not common, and is very rare along the shores of Behring Sea. In the Upper Yukon region it is, however, more or less common, and skins were brought to me procured at Fort Reliance. Specimens have been taken at Sitka and Kadiak Island, and Mr. Lockhart secured its eggs at Fort Yukon. (*Nelson.*)

BREEDING NOTES.—This is probably the most abundant and certainly the noisiest of all the waders met with at Fort Anderson, in the Barren Grounds. Nests were taken at Fort Anderson, on the Lower Anderson, in the wooded country, and along the rivers which flow through the Barren Grounds. (*Macfarlane.*) Mr. Spreadborough thought a few pairs bred at Indian Head, Assa., in July, 1892; and in June, 1897, at Edmonton, in Alberta, he saw them often sitting in dead poplars and upon stubs on the borders of wet meadows, but he could never find any nests. Mr. Dippie writes me that he believes they were breeding at

Reaburn, Man., in June, 1893, and at Buffalo Lake, Alberta, in July, 1896. On the 15th June, 1897, about 30 miles from Calgary, Alberta, the writer came upon a small flock at a grassy pond in the foothills of the Rocky Mountains, and from the actions of the birds it seems certain they were breeding, but no nests were found.

MUSEUM SPECIMENS.

Seven specimens; one taken near Toronto, in 1865, purchased with the Holman collection. Mr. W. Spreadborough took four at Indian Head Assa., in May, 1892, and two at Edmonton, Alberta, in May, 1897.

One set of eggs, taken at Fort George, James Bay, in June, 1888, by Mr. Miles Spencer.

XC. **HELODROMAS** KAUP. 1829.256. **Solitary Sandpiper.**

Helodromas solitarius (WILS.) SHARPE. 1896.

A migrant in Newfoundland and Nova Scotia.

A common summer resident in New Brunswick. Mr. Banks took a nest at Lily Lake in June, 1880. (*Chamberlain.*) The writer saw several pairs, which were evidently breeding, in July, 1888, along Black River, Prince Edward Island. Brittain and Cox found this bird in the valley of the Restigouche, N.B., in summer, evidently breeding. Mr. J. M. Macoun found it a common summer resident at Lake Mistassini, northern Quebec, in 1885. In other parts of Quebec it is reported as a migrant. It is recorded as a summer resident at Ottawa, and is known to breed in the vicinity. There is still doubt regarding its occurrence in summer in western Ontario, and observers there are asked to procure its eggs if possible.

In Manitoba, Hine and Nash—both close observers—state that this bird breeds there and is abundant. Mr. Spreadborough only saw a straggler at Indian Head, Assa., in the spring of 1892. In the spring of 1897 he saw numbers at Edmonton, Alta., on the borders of bogs, and as they took to the trees he believed they were breeding. He also found them breeding at Jasper Lake, Alta., in July, 1898. While making a traverse of the northern part of Labrador on July 24th, 1896, he shot a specimen from the top of a spruce

tree near a peat bog close to Seal Lake; none were seen after this. Bernard Ross says that it extends as far north as Fort Simpson on the Mackenzie River. Macfarlane does not mention it, but Sir John Richardson says it has been shot as far north as Lat. $64^{\circ} 30'$.

Nelson, in his *Birds of Alaska*, says that a few skins of this species were brought to him from Anvik and Nulato, both on the Lower Yukon, and their occurrence here involves their occurrence on the Upper Yukon. Fannin and Brooks record it as being tolerably common in British Columbia.

BREEDING NOTES.—We have very little actual knowledge of the breeding habits of this bird other than that it is solitary in its habits and has a tendency to take to trees when in proximity to its nest. Hutchins found the nest on the shores of Hudson Bay; and according to Richardson its eggs were deposited on the beach and no nest formed. This tallies exactly with the conditions under which its nest was found near Castleton, Vermont, by Mr. J. Richardson, in May, 1878. In the latter case, the single egg was placed in a small depression in the ground, without any attempt at a nest,

In July, 1881, the writer, when leading an exploring expedition up the Red Deer River, which empties into the head of Lake Winnepegoosis, came upon a pair of these birds on a point of bare rocks which jutted into the stream, and shot one. On the report of the gun, a young bird—still in the down—jumped up and ran, but was soon caught. On July 6th, 1896, while collecting plants in a swamp near Prince Albert, on the Saskatchewan, I saw a bird of this species sitting on a small birch, but could neither raise the other bird nor find the nest. The next day I visited the same place and found two birds sitting on trees, but failed to find the nest.

On July 19th, 1895, I came across a pair near Calgary, Alberta, which undoubtedly had young in the grass, one bird kept flying within a few yards of me as long as I stayed in a certain locality. I also observed this species in summer at Buffalo Lake, Alta. It was also seen at Manitoba House, Man., at the end of June, 1895. (*Dippe.*)

Dr. Clarke of Kingston, Ont., in *The Auk*, Oct. 1898, and the Rev. C. J. Young in *The Ottawa Naturalist*, Dec. 1899, give detailed accounts of the finding of a nest of this species. Mr. Young thus

describes the nest and eggs : "The nest was in a tolerably dry sandy place, and each time the bird left it, she flew to the creek, where she skulked and hid among the long grass, behaving in a manner unlike its habit during the spring and fall migration. It was constructed of bits of bark, moss, grass and rootlets, a considerable quantity of material being used. The three eggs are bluntly pyriform, the ground-colour drab, and the texture of the shell very fine and delicate ; in fact so much so that they required very tender handling in blowing. They are spotted all over, the spots and specks varying in size from a pin's head to a small pea ; there are no blotches, but a few shell markings. These eggs are a trifle larger than Spotted Sandpiper's, averaging 1.25 x 1.00 inch."

MUSEUM SPECIMENS.

Six specimens in the collection, one taken at London, Ont., purchased with the Holman collection ; one taken at Ottawa by Mr. Fred Saunders ; one taken on Toronto Island by Mr. S. Herring ; two taken at Indian Head, Assa., in May, 1892, and another at Kicking Horse Lake, Rocky Mountains, August 13th, 1890, all by Mr. W. Spreadborough.

256a. **Cinnamon Solitary Sandpiper.**

Helodromas solitarius cinnamomeus (BREWSTER) A. O.

U. COMM, Ms., 1899.

Summer resident in the interior of British Columbia ; at Ducks near Kamloops, I saw individuals that were not yet able to fly. and must have been hatched in the vicinity. (*Streator.*)

257. **Green Sandpiper.**

Helodromas ochropus (LINN.) KAUP. 1829.

An individual of this species exists among a collection of birds from the North-west Territories, sent to the British Museum by the Hudson's Bay Company. Pennant says he also observed it among birds collected by Mr. Kuckan in North America. (*Richardson.*) Accidental in Nova Scotia. (*A. O. U. List.*)

XCI. **SYMPHEMIA** RAFINESQUE. 1819.258. **Willet.***Symphemia semipalmata* (GMEL.) HARTL. 1845.

A common spring and autumn migrant in Newfoundland. (*Reeks.*) Common in summer and fall in Nova Scotia. Breeds at Port Petpiswick. (*Downs.*) Rather common at Grand Manan, New Brunswick. (*Herrick.*) Very little is known of this species in Ontario. On two occasions I have seen it brought in from the Hamilton marsh by gunners, but I never saw it alive. (*McIlwraith.*)

258a. **Western Willet.***Symphemia semipalmata inornata* BREWST. 1887.

This is a common species in the prairie region west of Manitoba. It frequents the margins of saline ponds and brackish marshes from western Manitoba to the Rocky Mountains, and from Lat. 49° to 56°. It breeds throughout its range. One specimen taken at Clover Point, Victoria, August 8th, 1898, by Mr. J. Henley. (*Fannin.*)

BREEDING NOTES.—First seen at Indian Head, Assa., May 6th, 1892. It was quite common a few days later, and spread itself through the marshes where it breeds in considerable numbers; breeding also in great profusion in the marshes around Crane Lake in June, 1894. (*Spreadborough.*) On May 23rd, 1883, on the Alkali Plain, north of the land office at Turtle Mountain, I started a Willet from her nest, which was placed in a slight hollow, shaded on one side by the skull of a buffalo and on the other by a tuft of grass. It contained four eggs, ground color, dark olive-brown, with heavy, round, dark spots of brown and purple, evenly distributed without any approach to a ring about the large end. (*Thompson.*) This species breeds in both Manitoba and Alberta. In the latter Province, at Buffalo Lake, I found the young in the grass on July 4th, 1895. (*Dippe.*)

MUSEUM SPECIMENS.

Seven specimens; two taken at Sounding Lake Alberta, by Mr. J. B. Tyrrell, in June, 1886. All the others were taken by Mr.

W. Spreadborough at Indian Head and Crane Lake, Assa., and at Edmonton, Alberta, in the spring of 1897.

XCII. **HETERACTITIS** STEJNEGER. 1884.

259. **Wandering Tatler.**

Heteractitis incanus (GMEL.) STEJN. 1884.

This bird has been noted over the entire Pacific north of the equator. It is met with sparingly along the coast of Alaska, and seems to prefer the rock-bound portions. From the records obtained it must breed nearly, if not quite, to the Arctic circle. (*Nelson.*) This species was found to be a rare bird in that part of Alaska visited by me. The natives report that they breed on Whale Island, near St. Michael, and from their actions I believe this to be true. (*Turner.*)

Mr. Fannin finds this species common along the whole coast of British Columbia, where it breeds and is tolerably common. The writer obtained both young and old birds on rocky ledges in Barclay Sound, on the west coast of Vancouver Island, in August, 1887.

XCIII. **PAVONCELLA** LEACH. 1816.

260. **Ruff.**

Pavoncella pugnax (LINN.) LEACH. 1816.

Accidental in New Brunswick. (*Chamberlain.*) This species was killed on Toronto Island in the spring of 1882, and is the only instance I know of its occurrence in Ontario. (*McIlwraith.*)

MUSEUM SPECIMENS.

Two—a male and female—shot on Toronto Island by a Mr. Humphrey in the spring of 1875. Mr. Samuel Herring vouches for their having been killed there.

XCIV. **BARTRAMIA** LESSON. 1831.

261. **Bartramian Sandpiper.**

Bartramia longicauda (BECHST.) BONAP. 1857.

Occasionally met with in Newfoundland in the spring migrations. Casual in Nova Scotia and New Brunswick, and a rare

migrant in Quebec. The only point in Southern Ontario at which I have heard of these birds being seen lately is on the Lake Erie shore not far from Dunville, where Dr. Macallum is aware of at least two pairs having raised their broods during the two past summers—1893-94. (*McIlwraith.*)

This species is an abundant summer resident in the whole prairie region extending from the Lake of the Woods to the Rocky Mountains, and from the International Boundary to lat. 54° in the eastern part of the region, and northwesterly to far north of the open prairie of the Peace River. According to Fannin one specimen was taken at Comox, Vancouver Island, August 28th, 1895, by Mr. W. B. Anderson. Its occurrence in Alaska is accounted for by its northwest extension on Peace River. Only a few specimens taken at Fort Yukon are recorded from Alaska.

BREEDING NOTES.—For some years past I have seen a few pairs of these birds every year in the neighbourhood of Kingston, Ont. Favorite resorts are Simcoe Island and Amherst Island, Lake Ontario, as well as eastward. A few sets of eggs are found yearly in the month of May; in June 1894 a pair hatched out a brood in a pasture field near Lansdowne Station, on the Grand Trunk Railway. A dry rough field is its favorite abode; in this respect it differs from other members of the family. It makes a nest of withered grass which it partially conceals amidst the dry growth of last year, and lays four eggs, resembling the woodcock's, but larger. (*Rev. C. J. Young.*) Its breeding centre is in Western Manitoba and Eastern Assiniboia. This species is quite rare in Western Assiniboia and Southern Alberta, and prefers well grassed prairie to that with a thin sod and little water.

MUSEUM SPECIMENS.

Five specimens; one taken on Toronto Island by Mr. S. Herring; one at Nose Creek, Alberta, by Mr. J. B. Tyrrell; one at Indian Head, Assa.; one at Medicine Hat, Assa.; and one at Edmonton, Alberta, by Mr. W. Spreadborough. Our collection of eggs is not large. One set of four was obtained by Mr. J. B. Tyrrell in Northern Alberta, on July 1st, 1886; another was taken at Grenfel, Assa., by Mr. Lake in June, 1894.

XCV. **TRYNGITES** CABANIS. 1856.262. **Buff-breasted Sandpiper.**

Tryngites subruficollis (VIEILL.) RIDGW. 1885.

This is a migrant along the whole Atlantic coast and in the Gulf of St. Lawrence, as well as along the river itself. Although a rare migrant in Ontario its eggs have been taken near Dunville, Lake Erie, by Dr. Macallum. (*McIlwraith.*)

Seton-Thompson says it is a rare migrant in Manitoba and no specimens have been observed by the writer west of that province. On the Mackenzie, Bernard Ross reports this bird to be rare while on the Barren Grounds to the northeast Macfarlane says it is common.

Murdoch found it common at Point Barrow, while Nelson saw only a few specimens at the Yukon mouth. On the other hand Mr. Fannin reports it as tolerably common throughout British Columbia and also a resident. Mr. Brooks says it is a rare migrant in the Lower Fraser valley in the autumn.

This species is common on the Arctic coast and on the Barren Grounds east of Horton River. Between the 26th June and the 9th July upwards of twenty sets of eggs were secured, and there were four in every nest, which was a mere depression in the soil, scantily lined with a few withered leaves and dried grasses. When the nest was approached the female usually made a low flight to a short distance. (*Macfarlane.*) This is an abundant summer resident at Point Barrow, and was more plentiful in the season of 1883 than it was the year before. They arrived in both seasons in a body about the same time (June 6th to 8th), and were first seen on the dry banks below the village feeding greedily on the flies and beetles which were out sunning themselves. By the middle of June they had spread pretty well over the dryer parts of the tundra, but always confined themselves to high and dry banks, or what we called the black tundra. The eggs as might be inferred from their colours, are laid in the latter locality, as a rule, where they harmonize very well with the black and white ground and moss. Like the rest of the waders this bird builds no nest but deposits the four eggs small end down in a shallow depression in the ground lined with moss. Four is the usual number of eggs in a complete set, though we collected one set with five. (*Murdoch.*)

The nest described by Dr. Macallum in McIlwraith's *Birds of Ontario* as of this species, is evidently referable to the next.

MUSEUM SPECIMEN.

One specimen, purchased with the Holman collection, Said to have been taken at Toronto, Ont.

XCVI. **ACTITIS** ILLIGER. 1811.

263. **Spotted Sandpiper.**

Actitis macularia (LINN.) NAUMANN. 1836.

This is a common species in Labrador, Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. In all these provinces it breeds, either by the sea, shores of lakes or banks of rivers, but never in colonies. Seldom more than one pair is found in the same place.

From Manitoba to the Pacific it is found breeding in suitable situations, both in the mountains and on the plains. According to Ross and Macfarlane it extends almost to the Arctic Sea, being common on the Barren Grounds and in the Mackenzie River valley. Only a few specimens have been taken in Alaska, along the Yukon, but there is no reason why it should not breed there.

BREEDING NOTES.—Found breeding from Muskoka, Ont., to Victoria, Vancouver Island, and northeast to Ungava, in Labrador. Nest, a hole in the ground lined with grass, and placed beneath a tuft of old grass or small bush, always near water. The young leave the nest as soon as hatched. (*Spreadborough.*) This species, besides breeding inland in all suitable places, is especially common near the St. Lawrence River. I have found numbers of their nests in June along the gravel bar at the foot of Amherst Island, Lake Ontario; also on the small islands down the river. They usually construct a nest in a bunch of weeds, of dried grass, chips or anything to hand, concealing it well. I have found the nest twice in a field of grain, away from water and once under a bush among trees on an island in a lake. The first eggs are usually laid about the 20th May, but are occasionally met with as late as July 1st. I met with this bird frequently breeding in the Magdalen Islands, Gulf of St. Lawrence, and

found a nest with four eggs on June 26th, 1897, built in a dry grassy place amongst spruce bushes in just such a place as one would occupy in Ontario. (*Rev. C. J. Young.*) The writer has found this species breeding in the sandhills at Brackley Point, Prince Edward Island, and on Cape Forteau, near Yarmouth, N.S., where a nest containing four eggs was taken on June 23rd, 1883. On June 29th, 1895, a nest containing four eggs was taken on the shore of Cypress Lake, Assa. The nest was of dried grass concealed under a tuft of old grass close to the lake and was only discovered by flushing the bird.

MUSEUM SPECIMENS.

Ten specimens; two taken at Toronto, Ont., by Mr. S. Herring; the others by Mr. W. Spreadborough at Indian Head, Assa., at Canmore and Banff, Alberta, and at Revelstoke, Griffin Lake and Spence's Bridge, B. C.

We have eggs taken on the Upper Hamilton River, Labrador, by Mr. A. P. Low, June 25th, 1894; and another set taken at Repulse Bay, Hudson Strait, by Captain A. Manny in June, 1896; a third set was taken by the writer at Cypress Lake, Assa, June 29th, 1895.

XCVII. **NUMENIUS** BRISSON. 1760.264. **Long-billed Curlew.**

Numenius longirostris WILS. 1814.

A rare migrant in Newfoundland, and still rarer in Nova Scotia and New Brunswick. Rather more common in Quebec and Ontario, but only known as a migrant. In Manitoba this bird is comparatively rare as a breeding bird, but in Assiniboia and Alberta it is common, and extends its breeding-grounds across the Rocky Mountains into British Columbia, where Mr. Fannin found it breeding at Okanagan and Similkameen. Its range to the north is limited, as we have no notices of it from north of the prairie districts, and only one specimen is recorded from Alaska. A few specimens have been taken at Victoria and in the Lower Fraser valley, B.C.

BREEDING NOTES.—A nest of this species was taken by Col. Wyndham on the Bow River, about fifty miles southeast of Calgary, Alta. Nest just a hollow in the ground, on the bare prairie lined with a few straws. (*Dippie.*)

This bird nests on the open prairie and its nest is exceedingly hard to find. The male flies towards any intruders and makes the air resound with its cries. It is soon joined by other birds from a considerable distance, who join in attracting attention by their noise and actions. The young are easily found, as at least one parent keeps in their vicinity. This species was found breeding at Wood Mountain in June, 1895, and for 150 miles to the west towards the Cypress Hills, upon which numbers were breeding in 1894. In the summer of 1897 it was found in southern Alberta, and was breeding, or rather caring for its young, west of Fort McLeod, in the latter part of July. In June, 1889, it was found breeding on the dry hills south of Kamloops, B.C.

MUSEUM SPECIMENS.

Four specimens. One taken at Fort McLeod, Alta., by Mr. A. F. Grant, in 1888; the others by Mr. W. Spreadborough at Crane Lake and Medicine Hat, Assa., May, 1894, and at Kamloops, B.C., June 16th, 1889.

Three eggs taken by Mr. Raine near Rush Lake, Assa., June 1st, 1893, and a set taken by Col. Wyndham near Calgary, Alta.

265. **Hudsonian Curlew.**

Numenius hudsonicus LATH. 1790.

Occasional in Greenland. Abundant in Newfoundland during the migrations, but does not breed on this island. An uncommon autumn visitor in Nova Scotia and New Brunswick. Brewster saw several large flocks of curlews, which he took to be this species, at East Point, Anticosti, on July 7th. Said not to breed on that island. It is a scarce migrant in Quebec and rather more common in Ontario, but is becoming scarcer according to McIlwraith. This species is not mentioned by Seton-Thompson in his *Birds of Manitoba*, nor has the writer seen it in any part of the Northwest. It is occasionally seen on the coast of British Columbia, but appears to be far from common, only two specimens having been taken. Hudson Bay and westward along the Arctic coast seem to be its summer haunt. It was common at Fort Churchill in 1884, according to Dr. R. Bell; and Herne says it was common on the shores of the bay in his time. Macfarlane says it is by no means rare on the Barren Grounds, but is more

common to the west. From May 18th to 25th these birds begin to make their appearance on the coast of Norton Sound, Alaska, where, however, only a very few pairs remain to nest, the others passing on still farther to the north to the extended open country bordering the shores of the Arctic Sea.

BREEDING NOTES.—The chief breeding haunts of this bird seem to be still unknown, but the fact of Hutchins speaking of it shows that many of the eastern migrants must breed along the south shore of Hudson Bay.

MUSEUM SPECIMENS.

Three specimens of this species, all taken on the island at Toronto, Ont., by Mr. S. Herring.

266. **Eskimo Curlew.**

Numenius borealis (FORST.) LATH. 1790.

By far the most common species of Curlew on the coast of Newfoundland, but a periodical visitor. (*Reeks.*) Casual in Greenland, and not uncommon in Nova Scotia and Prince Edward Island, but a rare autumn visitor in New Brunswick. A rare migrant in Quebec. Accidental in Ontario; Mr. McIlwraith says he is aware of only three specimens being taken in Ontario in twenty years.

Mr. L. M. Turner observed several large flocks of this species flying over the mouth of the Koksoak River, Ungava Bay; plentiful in the fall in southern Labrador, but the flocks do not stop. Mr. Spreadborough saw none when he made a traverse of Labrador in July, 1896. It was found in large numbers in August, 1884, by Dr. R. Bell, at Fort Churchill on Hudson Bay.

Macfarlane found it breeding in great numbers on the Barren Grounds. It is an irregular visitor at Point Barrow, and not a common one, but Murdoch says it is well known to the natives. Mr. Nelson reports this species to be the commonest of the curlews in northern Alaska, more especially along the coasts of Behring Sea and Kotzebue Sound.

BREEDING NOTES.—This curlew frequents the Barren Lands within the Arctic circle in summer, where it feeds on grubs and

freshwater insects and the fruit of *Empetrum nigrum*. On the 13th June, 1822, I found one of these curlews hatching on three eggs on the shore of Point Lake. (*Richardson.*)

This species breeds abundantly in the Barren Grounds to the eastward of Fort Anderson—and, except when otherwise described, these are the “Barrens” which are invariably referred to, right up to the Polar Sea. The nests, in every observed instance, were mere holes or depressions in the ground. Great difficulty was frequently experienced in finding them, as the eggs closely resembled the surrounding vegetation, and the bird glided off while we were still at some distance. Thirty sets of eggs were gathered, including several from the aforesaid Lower Anderson “Barrens.” (*Macfarlane.*)

MUSEUM SPECIMENS.

Two specimens of this species, said to have been taken on Toronto Island, Ontario, in 1864. They were purchased with the Holman collection.

267. **Whimbrel.**

Numenius phæopus (LINN.) LATH. 1787.

Nearly a dozen examples sent from all parts of Greenland have been received at Copenhagen. Although Holbøll doubts its doing so, Prof. Reinhardt thinks that this species may breed in Greenland. (*Arct. Man.*) An example of this species was shot near Assuk, Greenland, on May 25th, 1885. (*Hagerup.*) Winge believes that this species may sometimes breed in Greenland and cites many instances of its having been taken in recent years.

268. **Bristle-thighed Curlew.**

Numenius tahitiensis (GMEL.) RIDGW. 1880.

On May 24th, 1880, a pair of these birds settled near by, where I was shooting black brant, on a rising stretch of land covered with large tussocks. I secured the male, which was in fine plumage, but could not find the female, although mortally wounded. This is the second known instance of this bird's occurrence on the shores of Alaska, the former record resting on the capture of a specimen at Kadiak Island by Bischoff. (*Nelson.*)

FAMILY XXII. **CHARADRIIDÆ.** PLOVERS.XCVIII. **VANELLUS** BRISSON. 1760.269. **Lapwing.***Vanellus vanellus* (LINN.) LICHT. 1854.

One obtained 7th January, 1820, near Fiskenæs, Greenland ; a second received at the Museum in Copenhagen from Julianehaab in 1847. (*Arct. Man.*) On the islands in Norton Sound, Alaska. (*A. O. U. List.*)

XCIX. **CHARADRIUS** LINNÆUS. 1758.270. **Black-bellied Plover.***Charadrius squatarola* (LINN.) NAUM. 1834.

Rare in Greenland, but found in both Inspectorates ; said to breed on Melville Peninsula. (*Arct. Man.*) A common autumn migrant in Newfoundland, Nova Scotia and New Brunswick. A migrant in Quebec and Ontario in both spring and fall. Reversing its line of migration this bird appears in Manitoba, Assiniboia and Alberta in spring, and has been killed by Dippie at Reaburn, Manitoba, as late as June 1st. On Hudson Bay it is common, and extends its range thence westward including the whole Arctic coast and all Northern Alaska and down the Pacific coast to the southern boundary of British Columbia.

BREEDING NOTES.—Our first introduction to this handsome and somewhat rare Arctic plover was on Island Point, in Franklin Bay, on July 4th, 1864. The nest contained four eggs and was composed of a small quantity of withered grass placed in a depression on the side or face of a very gentle eminence. Both parents were seen and the male shot. On the following day another nest with four eggs was discovered and a third also met with. In 1865 seven nests were gathered by our party in the same quarter. (*Macfarlane.*)

MUSEUM SPECIMENS.

Three specimens ; one purchased with the Holman collection ; another taken on Toronto Island by Mr. S. Herring, and a third at Edmonton, Alberta, in May, 1897, by Mr. W. Spreadborough.

271. **Golden Plover.**

Charadrius aprivarius LINN. 1758.

One specimen, taken in summer plumage, was shot in the spring of 1871, on the Noursoak Peninsula; and believed by Dr. Finch to breed in East Greenland. (*Arct. Man.*) The Director of the colony of Frederickshaab reports taking a young bird of this species in August, 1887. (*Hagerup.*)

272. **American Golden Plover.**

Charadrius dominicus MULL. 1776.

Somewhat rare in Greenland, but possibly breeds there as it does in considerable abundance on swampy places in the Parry Islands. (*Arct. Man.*) A common *autumn* migrant in Newfoundland, Nova Scotia, Prince Edward Island, New Brunswick, Quebec and Ontario. It is rarely seen in the spring and we have no account of its breeding in any of these provinces. In Manitoba and the other prairie provinces it is both a spring and autumn migrant and leaves for the north the last week in May, returning about the middle of August. It is not known to breed in Labrador but doubtless does along the western coasts of Hudson Bay. Its breeding grounds are from Hudson Bay westward, including the Barren Grounds and the coasts of the Arctic Sea, to the north of the Mackenzie, Point Barrow and south-westward around the whole northern coast of Alaska, where it seems to meet the Siberian form. It is said to breed in northern British Columbia, and the specimens taken, although not referable, according to Mr. S. N. Rhoads, to *C. fulvus*, are darker underneath than eastern specimens.

BREEDING NOTES.—The breeding quarters of this well-known bird are the Barren Grounds and the coasts and islands of the Arctic Sea. It hatches early in June, and retires southward in August. (*Richardson.*) This beautiful species is very numerous in the Barren Grounds from the outskirts of the forest to the shores of the Polar Sea. The nests were found to be precisely similar to those of *C. squatarola*. They were also as difficult to detect, and for the same reason, a harmonizing resemblance of the egg markings to the surrounding soil and a timeous departure of the female bird from her nest. I find 170 nests recorded in my notes. Except when there was reason to believe that the

full number had not been deposited four eggs were always met with. In one case there were five and in another only one. (*Macfarlane.*)

This species arrives on the shores of Norton Sound, Alaska, about the end of May. They soon pair and disperse, so that a few days after the main arrival their nests may be looked for. The nests are generally in small depressions which may be found among the moss and dried grass of a small knoll, and at times a slight structure is made of dried grass. The grass, and perhaps, a few dead leaves of the dwarf willow are arranged in a circular, saucer-shaped form, about four or five inches across, and contain four eggs, which have a pale, yellowish ground colour, with very dark well-defined umber-brown spots scattered rather profusely over the shell, especially about the larger end. (*Nelson.*) The Golden Plover arrives at Point Barrow about the end of May. It was nesting before June 20th, both seasons I was at Point Barrow, though I was unable to find its nest before the 22nd. The nest is exceedingly hard to find although it is not concealed at all, but is simply a depression in the bare black clayey tundra, lined with a little dried moss. The only vegetation on this part of the tundra is white and grayish moss, which harmonize so extraordinarily with the peculiar blotching of the eggs that it is almost impossible to see them unless one knows exactly where to look. A favourite nesting place is on the high banks of the gullies or small streams. No nests were found in the grass or in swampy ground. (*Murdoch.*)

MUSEUM SPECIMENS.

Eight fine specimens ; one purchased with the Holman collection ; one from the Yukon River, presented by Dr. Bell ; four taken at Indian Head, Assa, in May, 1892, and two at Edmonton, Alberta, in May, 1897, all by Mr. Wm. Spreadborough.

272a. **Pacific Golden Plover.**

Charadrius dominicus fulvus (GMEL.) RIDGW. 1880.

This form and the eastern one seem to grade into each other on the northern Alaskan coast, but *C. fulvus* is the commoner toward Behring Strait, and breeds along the coasts of both continents around the northern shores of Behring Sea. No specimens of this form have been taken on the American coast south

of Alaska. It is not uncommon on the islands off the coast, and Turner speaks of it being taken on the Aleutian Islands. Nelson says that on the Siberian Coast of Behring Sea the typical Asiatic form is common, and is of much rarer occurrence on the Alaskan Coast, from the peninsula of Alaska north to Point Barrow.

C. **ÆGIALITIS** BOIE. 1822.

273. **Killdeer Plover.**

Ægialitis vocifera (LINN.) BONAP. 1838.

This is a rare migrant in Newfoundland, Nova Scotia, New Brunswick and Quebec. In Ontario it is much more common, and breeds in suitable localities throughout the province. Throughout Manitoba and the whole prairie country this bird breeds abundantly. It is also common in the Rocky Mountains and British Columbia, and breeds almost to the coast. Its northern limit is very likely the sub-arctic forest, as it seems to prefer open plains where brackish marshes are of frequent occurrence.

BREEDING NOTES.—This bird is to be met with in those parts of Ontario that are in any way adapted to its habits. Its favourite haunts are rough pastures with here and there a few scrubby bushes scattered about; if there are a few stones and gravel, so much the better; the birds take kindly to such spots. I meet with a few pairs of this species every year, and notice that they breed comparatively early, the full complement of four eggs sometimes being laid as early as the 26th of April. I have found a number of their eggs, and notice that for a nesting place they usually choose a small stoney or gravelly patch in a pasture; once I found a nest among small stones and rock close to a quarry where the year before I had taken two nighthawk's eggs. (*Rev. C. J. Young.*) The Killdeer Plover breeds in small numbers all over western Ontario. It lays four eggs, which are so placed as to be very difficult of discovery. (*W. Saunders.*) This species nests in the gravel at the margin of lakes and ponds, also on bare ground on the prairie and in ploughed fields throughout the whole prairie region. The nest is a hole in the gravel or ground, usually not far from water. Eggs, four, always standing upon the small end in the nest. (*W. Spreadborough.*)

MUSEUM SPECIMENS.

Eight specimens.; two taken on Toronto Island by Mr. S. Herring; the others at Indian Head, Assa., Edmonton, Alta., Revelstoke and Spence's Bridge, B.C., by Mr. W. Spreadborough.

Of eggs we have several sets taken at Indian Head, Assa., June 27th, 1892, and Edmonton, Alta., May 19th, 1897, by Mr. W. Spreadborough; and others from Reaburn and Grenfel, Man.

274. **Semipalmated Plover.**

Ægialitis semipalmata BONAP. 1838.

This species is a summer migrant in Newfoundland, Labrador and the islands in the Gulf of St. Lawrence, breeding more or less abundantly. In Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Ontario it is reported as a migrant only; yet, as Mr. Young shows, it breeds in Ontario, and doubtless in the other provinces also. In Manitoba and eastern Assiniboia it is a common migrant, and breeds sparingly. The writer saw young birds of this species at the salt springs at the head of Lake Winnipegosis on 22nd July, 1881.

This bird may be said to make its summer home and bring forth its young from Ungava Bay on the northeast coast of Labrador to Alaska on Norton Sound. It is, however, more plentiful east of the Mackenzie than west of it. It is known only as a rare migrant in British Columbia, and not known to breed.

BREEDING NOTES.—This bird is found every fall and spring on the gravelly bars at the foot of Amherst Island, Lake Ontario. There, on the 24th of June, 1895, I found a nest containing four fresh eggs. It was built on a gravelly beach, at no great distance from the water, amongst a spring growth of a little grass and sedge, and in the early spring would probably have been within reach of the high water. I met with two pairs of these birds at the Magdalen Islands in June, 1897, but could not locate the nest though I knew they were breeding. (*Rev. C. J. Young*)

This bird is quite common on parts of the Arctic coast and along the Anderson and Lockhart rivers, as well as in the country between Fort Anderson and Fort Good Hope, Mackenzie River. Most of the twenty nests taken contained four eggs, and several but two or three. When closely approached, the female

glided from the nest and ran a short distance before flying, occasionally drooping her wings and pretending lameness. The nest is a mere cavity in the sand, lined with a few withered leaves and grasses. (*Macfarlane.*) In June, 1896, this species was found to be common from Moose Factory, James Bay, to Richmond Gulf, Hudson Bay. On the 18th June Mr. A. P. Low found a nest containing four eggs. Nest in sand, beside a stone, composed of a little dry grass. This bird was observed throughout the interior of Labrador in summer wherever there were large lakes with sandy shores. (*W. Spreadborough.*)

MUSEUM SPECIMENS.

Two specimens, both taken at Indian Head, Assa., by Mr. W. Spreadborough.

Four eggs taken in Labrador by Mr. A. P. Low, and eight by Mr. Payne in Hudson Strait in the spring of 1885, and others taken at Whale River.

275. **Ring Plover.**

Egialitis hiaticula (LINN.) BOIE. 1822.

Breeds generally in Greenland and found on Clavering and Sabine islands; said to be abundant on the shores of Possession Bay and Regent Inlet. (*Arct. Man.*) This species was observed on August 15th, 1886, near a shallow lake, about 1100 feet above sea level; a nest and eggs were found near Godhaven, Greenland, on June 14th, 1880. (*Hagerup.*)

276. **Little Ring Plover.**

Egialitis dubia (SCOP.) SWINH. 1871.

Accidental on the coast of Alaska. (*A. O. U. List.*)

277. **Piping Plover.**

Egialitis meloda (ORD) BONAP. 1838.

This species, besides being a migrant, breeds in suitable places in nearly all the eastern provinces. It was found breeding by Downs at Port Petpiswick, Nova Scotia; by Bishop, near high water-mark on the Magdalen Islands; and by W. Saunders on Pelee Point, Lake Erie. It is not a widely distributed species and seems to prefer the sea coast.

BREEDING NOTES.—A very noisy species that is quite abundant at the Magdalen Islands, where I found four nests in 1897, but I have not observed it in Ontario. It is an interesting bird running along the sandy beach at a great speed and stopping now and again to utter its shrill note. Being so much lighter in color it is at once distinguished from *CE. semipalmata*, as well as by its note. The first nest I found was on the 16th of June. It was on one of the sandy bars of Grindstone Island. The nest consisted of a little hole scooped out on a small hummock of sand, and was tessellated as it were with broken pieces of clam shells, after the manner of the Ring Plover of Great Britain. No grass or bits of bark are used as with *CE. semipalmata*. The other nests were identical, the eggs being fresh in the second week in June. (*Rev. C. J. Young.*) In the latter part of June, 1888, the writer found three nests of this species on the sands of Brackley Beach, Prince Edward Island. They were mere holes in the sand or rather fine gravel and broken shells and without any lining whatever. The bird and its surroundings were so much alike that it was only by accident that any nests were found. Mr. W. Saunders writes that he has an egg which is probably of this species from Long Point, Lake Erie, and also a young bird, only a few days old, taken on Point Pelee, Lake Erie, and that the birds are still to be found in these and other suitable localities in summer.

MUSEUM SPECIMENS.

Two specimens, taken at Toronto, Ont., by Mr. S. Herring. One set of four eggs taken on Grindstone Island, Magdalen Islands in June 19th, 1897, by the Rev. C. J. Young.

277a. **Belted Piping Plover.**

Egialitis meloda circumcincta RIDGW. 1874.

This form is quite common on Sable Island nearly 100 miles east of Canso, N.S., and breeds there in numbers every year. The writer procured specimens on the island in August 1899 and saw no difference between them and those taken at Indian Head, Assa., in 1892. No doubt this is the form mentioned under the head of Piping Plover by Seton-Thompson in his *Birds of Manitoba*. This species did not reach Deep Lake, Indian Head, Assa., until May 16th, 1892. In three days they were common. Shortly after they dispersed to breed, only a few

pairs remaining at the lake. I am informed by Mr. Dippie that a nest of this species containing four eggs was taken at Manitoba House, Manitoba Lake, in June, 1895, and that downy young have been taken also.

This species is occasionally taken at Toronto, Ont. I have two undoubted specimens in my collection taken at Toronto. (*J. H. Fleming.*)

BREEDING NOTES.—On June 19th, 1895, Mr. Oliver Spanner found a nest of this species on Birch Island near the west shore of Lake Manitoba. The nest consisted of a depression in the sand lined with bits of drift-weed and contained three eggs, which are similar to those of the common Piping Plover; the ground colour is pale buff which is finely spotted with black and purple and gray. The eggs average in size 1.25 x 1.00 inches. Both eggs and skin of the parent are now in my collection. Mr. Spanner also obtained young birds in the down at the same time. He saw several pairs of the plovers in company with Solitary Sandpipers, which were no doubt nesting in the vicinity. (*Raine.*)

On June 18th a nest containing three eggs was discovered on a long point extending into Deep Lake, near Indian Head, Assa. It was in a shallow hole in sand behind a large stone, and no grass or weeds within twenty feet of it. (*Spreadborough.*) Breeding north to Lake Winnipeg. (*A. O. U. List.*)

MUSEUM SPECIMENS.

Five specimens; a pair taken on Sable Island, August 1899, by the writer; three specimens taken in May, 1892, at Deep Lake, Indian Head, Assa.; also one set of three eggs taken on the shore of Deep Lake in June of the same year by Mr. W. Spreadborough.

278. **Snowy Plover.**

Ægialitis nivosa CASS. 1858.

A casual straggler from the western United States. A specimen of this bird was shot at Toronto, Ont., in May, 1880, by Mr. J. Froman of that city, and identified by Mr. Ernest E. Seton-Thompson. See McIlwraith's *Birds of Ontario*, page 166. There is a specimen in Mr. J. H. Ames' collection taken at Toronto, July 6th, 1897. (*J. H. Fleming.*)

279. **Mongolian Plover.**

Egialitis mongola (PALL.) SWINH. 1870.

This handsome addition to the Plovers of North America was made by the captain of the ship *Plover*, during his visit to Kotzebue Sound, in the summer of 1849, when he secured two specimens upon Choris Peninsula. It is a common summer resident on the Commander Islands where it was found breeding by Stejenger. (*Nelson.*)

BREEDING NOTES.—Nests of this bird were found by Stejenger early in June. A nest was found on June 4th and contained three eggs. It was in a hollow between the stems of four specimens of *Angelica archangelica* and lined with dry fragments of leaves and stems of the same plant.

280. **Wilson's Plover.**

Egialitis wilsonia (ORD) BONAP. 1838.

Casual north to Nova Scotia. (*A. O. U. List.*)

281. **Mountain Plover.**

Egialitis montana (TOWNS.) CASS. 1858.

Chiefly the plains, from Central Kansas to the Rocky Mountains, north to the British Boundary, breeding from Kansas northward. (*A. O. U. List.*) Dr. Elliott Coues found this species at the mouth of Frenchman River and westward to near the Sweet-Grass Hills in July, 1874. In June, 1895, the writer was on Frenchman River, Assa., for many miles and did not see a trace of the bird so that lat. 49° must be close to its northern limit.

FAMILY XXIII. **APHRIZIDÆ.** SURF-BIRDS AND TURNSTONES.C. **APHRIZA** AUDUBON, 1839.282. **Surf Bird.**

Aphriza virgata (GMEL) GRAY. 1847.

Four specimens of this bird were taken in the vicinity of Sitka by Bischoff. It is a wide-spread Pacific species, occurring only

as a rare summer or fall visitant on the shores of the North Pacific and Behring Sea, reaching the vicinity of Behring Straits in Norton Sound. A pair were seen one autumn at St Michael and a few others at various times. (*Nelson.*) Not uncommon along the whole coast of British Columbia. It has been taken in Howe Sound by Mr. R. V. Griffin, at Port Simpson by Mr. W. B. Anderson, and at Nanaimo and Fort Rupert by Lord. It was also found very abundant on Stubbs Island on the west coast of Vancouver Island, in August 1893 by Mr. W. Spreadborough; it very likely breeds there.

MUSEUM SPECIMENS.

Four specimens, all taken on Stubbs Island, off the west coast of Vancouver Island, by Mr. W. Spreadborough in August, 1893.

CI. **ARENARIA** BRISSON. 1760.283. **Turnstone.**

Arenaria interpres (LINN.) VIEILL. 1819.

Not common, according to Holboëll, in Greenland. It breeds, however, generally along the coast of Greenland, as well as on Sabine Island and at Cape Brøer Ruys; also recorded from Winter Island in June, and breeds on the Parry Islands. (*Arct. Man.*) This species is a common autumn migrant in Newfoundland, less so in Nova Scotia and New Brunswick. It is more rare in the Gulf and along the River St. Lawrence, and still rarer in Ontario where it is only an occasional visitor. Not uncommon in Manitoba and eastern Assiniboia as a spring and autumn migrant. It was first seen at Indian Head, Assa., May 15th, 1892, and finally left for the north on June 2nd. Its breeding grounds may be said to extend from Hudson Bay westward around the whole Arctic coast of North America and up to the 75th parallel. It also extends along the whole coast of Alaska, breeding in some places, but as a migrant in others. On the British Columbia coast it is always a migrant and not a common one.

BREEDING NOTES.—In June, 1864, a dozen birds were observed at Fort Anderson, and one was shot. This species breeds on the shores of Liverpool and Franklin bays, and on the Lower Anderson River. Several nests were secured in the latter region; but

none were met with in the Barren Grounds. Four was the maximum number of eggs in a nest, which was similar to that of the other waders. (*Macfarlane.*)

MUSEUM SPECIMENS.

Four specimens ; one taken at Indian Head, Assa., in May 1892 by Mr. W. Spreadborough ; one at York Factory by Dr. Bell, and two at Toronto Island by Mr. S. Herring.

284. **Black Turnstone.**

Arenaria melanocephala (VIG.) STEJN. 1884.

This species is far more plentiful on the coast of Behring Sea than the preceding species and is one of the most abundant waders from Sitka north along the mainland and coast of Alaska. I found it also along the coast of the Arctic Sea from Behring Straits to Point Barrow, and it was also observed sparingly on St. Lawrence Island. It breeds among the brackish pools on St. Michael Island, and is found scattered over the brackish flats everywhere. (*Nelson.*) Although I did not find the nest and eggs of this bird, it breeds along the entire coast of the mainland of Alaska. It is one of the earliest arrivals in the vicinity of St. Michael and after the ice has left the shores it is ever on the alert for food along the beach. (*Turner.*)

According to Mr. John Fanning this species breeds along the shores of British Columbia and is more or less common on the shores of Vancouver Island. Mr. W. Spreadborough saw several specimens on Stubbs Island, Clayoquet Sound, in August 1893.

MUSEUM SPECIMENS.

Two fine specimens taken on the coast of British Columbia by Dr. G. M. Dawson in the summer of 1885. One specimen was taken on Foster Island and the other in Queen Charlotte Sound.

FAMILY XXIV. **HÆMATOPODIDÆ.** OYSTER-CATCHERS.CII. **HÆMATOPUS** LINNÆUS. 1758.285. **American Oyster-catcher.**

Hæmatopus palliatus TEMM. 1820.

Aud. Vol. V, page 237, says he found several pairs breeding in Labrador. (*Turner.*) North to Grand Manan, N.B. (*A. O. U. List.*)

13½

286. **European Oyster-catcher.***Hæmatopus ostralegus* LINN.

One specimen was sent to Copenhagen from Julianehaab in 1847, another in 1871 from Godthaab, and a third from Nenortalik in 1859. (*Arct. Man.*)

287. **Black Oyster-catcher.***Hæmatopus bachmani* AUD. 1839.

This bird is found abundantly at Sitka and Kadiak and Dall found it a summer resident on the entire Aleutian chain. Its range is not known to extend to the north beyond the Aleutian Islands. (*Nelson.*) This species is found on the islands of Alaska that lie south of the peninsula of Alaska and as far east as the Shumagin Group and to the westward as far as Kiska Island of the Aleutian chain and is a constant resident of this area. It is strictly littoral in its habits and always flies over the sea when moving from point to point. (*Turner.*) An abundant resident along the coasts of British Columbia. (*Fannin.*)

BREEDING NOTES.—This bird breeds throughout its range. The eggs are laid on the bare rock, just above high water wash. The number of eggs varies from one to three, usually two, and are laid about the 10th June. (*Turner.*) Dall found two nests on the Shumagin Group June 23rd, 1872. In both cases the eggs were placed directly on the gravel of the beach; one contained two eggs, the other one. Mr. John Fannin says that the eggs are generally two and laid on the bare rocks close to the water.

MUSEUM SPECIMENS.

One specimen taken on Stubbs Island, off the west coast of Vancouver Island, in August 1893, by Mr. W. Spreadborough. Two eggs taken on Sea Bird Island, Barclay Sound, west coast of Vancouver Island, by Dr. Newcombe, on June 1st, 1896. Also a set taken on Mittlematch Island, off Valdez Island, in the Gulf of Georgia, by Mr. Percy Smith, in June 1895.

ORDER GALLINÆ. GALLINACEOUS BIRDS.

FAMILY XXV. TETRAONIDÆ. GROUSE, PARTRIDGES, &C.

CIII. COLINUS LESSON. 1828.

289. **Bob-white Quail.**

Colinus virginianus (LINN.) STEJN. 1885.

The Bob-white may be claimed as a permanent resident in southern Ontario, which is the northern limit of its range, but it has hard work to hold its own against the many influences that are continually operating against it. (*McIlwraith.*) Breeds all through the southern part of the western peninsula of Ontario, commonly below Lat. 43° and more rarely up to Lat. 44°. (*W. Saunders.*)

MUSEUM SPECIMENS.

One pair taken near Chatham, Ont., in May, 1885, by Mr. S. Herring. One set of seven eggs taken at St. Clair Flats, Ont., May 21st, 1889, received from Mr. Raine.

CIV. OREORTYX BAIRD. 1858.

292. **Mountain Partridge.**

Oreortyx pictus (DOUGL.) BAIRD. 1858.

Quite common on Vancouver Island. Introduced from California. (*Fannin.*) Saw a small flock of this species on the Sooke hills, about 25 miles from Victoria, V. I., in September, 1893. (*Spreadborough.*)

MUSEUM SPECIMENS.

One fine specimen taken on Vancouver Island by Mr. John Fannin and presented to the Museum. Two eggs taken near Victoria, presented by the Rev. Geo. Taylor.

CV. LOPHORTYX BONAPARTE. 1838.

294. **California Partridge.**

Lophortyx californicus (SHAW) BONAP. 1838.

Vancouver Island. Introduced from California. (*Fannin.*) They were quite numerous in the autumn of 1892, but the winter

of 1892-93 being very severe a great number died. In the spring of 1893 I only saw one at Victoria, but at Sooke, in the autumn of that year, I saw many fine birds, and learned from the residents that they sheltered during the severe weather under the broom (*Sarothamnus scoparius*), which grew in abundance on Mr. J. Moore's farm, and lived on the seeds of the broom. (*Spreadborough*).

MUSEUM SPECIMENS.

One pair of fine birds, taken on Vancouver Island, and presented to the Museum by Mr. John Fannin. Three eggs taken near Victoria by the Rev. George Taylor.

CVI. **DENDRAGAPUS** ELLIOT. 1864.297. **Dusky Grouse.**

Dendragapus obscurus (SAY) ELLIOT. 1864.

We have no specimens of this Grouse in our collections, nor are we sure that this form occurs in Canada. It is more than probable, however, that it is partly the Blue Grouse of southwestern British Columbia. In the United States it has been taken in Montana and Idaho and hence may cross the British Columbia boundary.

297a. **Sooty Grouse.**

Dendragapus obscurus fuliginosus RIDGW. 1885.

Bischoff secured seven of these birds in the vicinity of Sitka, and Hartlaub records it from Portage Bay. There is no doubt that this bird occurs considerably farther north than Sitka along the coast region. (*Nelson*.) On my arrival on the coast of British Columbia, in the month of April, 1889, the calls of this species could be heard nearly throughout the day. (*Streator*.) West of the Coast Range, in British Columbia, including all the larger islands, an abundant resident. (*Fannin*.) Abundant on the western slope of the Coast Range, B. C. (*Brooks*.) Common in all parts of Vancouver Island; begins to call about April 1st; quite common at Hastings, B.C., in April, 1889, when it made the woods resound with its almost constant calls. (*Spreadborough*.)

MUSEUM SPECIMENS.

One specimen, a male taken at Hastings, B.C., April 20th, 1889, by Mr. W. Spreadborough. Two eggs taken on Vancouver Island by Rev. George Taylor.

297b. **Richardson's Grouse.**

Dendragapus obscurus richardsonii (DOUGL.) RIDGW. 1885.

For a notice of the occurrence of this species in Ontario I am indebted to Mr. C. J. Bampton, of Sault Ste. Marie, who has frequently seen it brought into market at that place. (*McIlwraith.*) This large grouse inhabits the Rocky Mountains up to Lat. 64°. (*Richardson.*) North to Fort Halkett on the Mackenzie River; only in the mountains. (*Ross.*) Seen along the trail from Jasper House to Camp River, B. C.; also at timber line on the mountains in the summer of 1898. (*Spreadborough.*) East of the Coast Range, including the Rocky Mountain districts. An abundant resident. (*Fannin.*) This species was found to be a common resident of the interior, and takes the place of the Sooty Grouse. (*Streater.*)

This species is general throughout the mountains from the east side of the Coast Range to the eastern foothills of the Rocky Mountains in Alberta. It is found in company with Franklin's Grouse at from four to seven thousand feet altitude, and in British Columbia even lower.

BREEDING NOTES.—One nest of this species was taken on the slope of the mountain near Revelstoke, B.C. It was placed on the ground close to a partly rotten log, and the nest was made chiefly of dead wood. There were six eggs perfectly fresh on May 22nd, 1890, when the nest was discovered, and from the constant calling and drumming both this and the Gray Ruffed Grouse must have been quite plentiful.

MUSEUM SPECIMENS.

Three; one a fine male, taken in the Bow River Valley, Alberta, in June, 1882, by Mr. R. G. McConnell; the others, a female, taken on the mountain at Spence's Bridge, B.C., May 28th, 1889, and a fine male taken at Revelstoke, B.C., May 2nd, 1890, by Mr. W. Spreadborough. Six eggs taken at Revelstoke, B.C., May 22nd, 1890, by the writer.

CVII. **CANACHITES** GRANT. 1893.298. **Canada Grouse.**

Canachites canadensis (LINN.) GRANT. 1893.

A very rare and uncertain straggler from Labrador to Newfoundland. (*Reeks.*) A common resident in Nova Scotia, but will soon be exterminated on account of its tameness. (*Downs*) A resident in New Brunswick, but rather rare in the St. John district. (*Chamberlain.*) An abundant resident throughout the wooded parts of Labrador, the whole Province of Quebec, and northern and northwestern Ontario. According to Seton-Thompson it is common at Lake Winnipeg, and extends northwesterly in the spruce forests; indeed its range is the spruce forests of the Atlantic coast, and thence across the Sub-Arctic forest to the mouth of the Yukon. Nelson says it is found on the shores of Behring Sea where the spruce forest touches the coast. Its range includes the whole northern spruce forest from the Pacific to the Atlantic, and seems to be almost co-incident with that of the Canadian Ruffed Grouse.

Saw a female with young at Richmond Gulf June 30th, 1896. None observed elsewhere in Labrador. Said to be plentiful a short distance up the river from Fort Chimo. (*Spreadborough.*) Breeds in the northern part of the Bruce Peninsula of Ontario. *W. Saunders.*

MUSEUM SPECIMENS.

Three specimens; one taken near Ottawa by Mr. S. Herring, and one procured at York Factory, Hudson Bay, by Dr. R. Bell, the third at Bracebridge, Ont., by Mr. W. Spreadborough. One set of eggs, taken at the Grand Falls of Hamilton River, Labrador, by Mr. A. P. Low, June 1st, 1894.

298a. **Labrador Spruce Grouse.**

Canachites canadensis labradorius BANGS. 1899.

Rigolette, Hamilton Inlet, Labrador. (*J. A. Allen in Auk*, Vol. XVI, 340.)

299. **Franklin's Grouse.**

Canachites franklini (DOUGL.) GRANT. 1893.

Northern Rocky Mountains, from northwestern Montana to the coast ranges of Oregon and Washington, and northward in British America, reaching the Pacific coast of southern Alaska, (Lat. 60° N.) (*A. O. U. List.*) This bird inhabits the valleys of the Rocky Mountains from the sources of the Missouri to those of the Mackenzie. (*Richardson.*) Throughout the wooded portion of the interior of British Columbia, east of and including the Coast Range north to Cassiar. An abundant resident. (*Fannin.*)

This grouse was quite common along the line of the Canadian Pacific Railway, in the Rocky Mountains, in the Bow River Pass and westward, in 1885. It is so tame that it is named the "fool hen," and many are killed with sticks as they sit on the low branches. Reported as common about Jasper House, on the Athabasca River, in the summer of 1898, by Mr. W. Spreadborough.

BREEDING NOTES.—This species seems to nest exactly like the other grouse. One nest found at the base of a tree at Hector, Rocky Mountains, on July 29th, 1885, contained eight eggs. The young were just emerging from the shell and would evidently leave the nest at once, as indeed two of them attempted to do as we stood by them.

MUSEUM SPECIMENS.

Two specimens; one taken by Mr. R. G. McConnell in Bow River Pass, June, 1882; the other at Revelstoke, B.C., May 1st, 1890, by Mr. W. Spreadborough.

CVIII. **BONASA** STEPHENS. 1819.300. **Ruffed Grouse, "Partridge."**

Bonasa umbellus (LINN.) STEPH. 1819.

From all I have observed, I think that we have in Ontario individuals of both *Bonasa umbellus* and *Bonasa umbellus togata*, that these two intergrade and produce a mixed race which is found throughout southern Ontario, but cannot properly be classed with either of the varieties. (*McIlwraith.*)

The writer can add nothing to this except that more than one form is yet awaiting a name, as between Manitoba and the Pacific, so far as our observation goes, it is extremely hard to say to what form many of the birds belong.

300a. **Canadian Ruffed Grouse.**

Bonasa umbellus togata (LINN.) RIDGW. 1885.

Common on Moose River, James Bay. None observed in Labrador in 1896. I think they go very little further north in Labrador than the birch and poplar. (*Spreadborough.*)

This is an abundant resident in Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Ontario. It seems to range all through southern Labrador with stragglers well to the north. Westward from Ontario it extends across the whole wooded country, being found in the spruce forest north of the prairie region to the boundaries of the Barren Grounds. The Rocky Mountain district may have this species in considerable numbers, but having no specimens from there its distribution is still uncertain.

East of and including the Coast Range, an abundant resident. (*Fannin.*) Typical birds of this sub-species as well as *B. sabinei* occur in equal numbers as well as every intergradation between them in the Lower Fraser valley (*Brooks.*) Common in the interior; found about thickets that border running water in British Columbia. The specimens are identical with those from New Brunswick. (*Streator.*)

BREEDING NOTES.—In the sunny weather towards the beginning of April if there be a crust on the snow the Ruffed Grouse resort to the hillsides facing the sun and the males strut about with their tails spread out to their fullest extent and their wings trailing on the ground like a turkey cock. If the spring be early the males soon begin to drum and continue drumming from a month to six weeks. In the meantime the females have chosen nesting sites on the ground, usually at the root of a tree but sometimes under a log or beneath a bush. The eggs in a nest vary from nine to thirteen. Upon leaving the nest the female always covers the eggs with dry leaves. In summer the young and old feed upon larvæ, insects and berries, and are very fond of clover. In the autumn they feed upon black cherries, haws,

mountain-ash berries and rose-hips. In winter they feed, in flocks of from ten to twenty or more, on the buds of birch, maple or ironwood, and seem to prefer the latter. During the winter they feed but twice a day in cold weather. These times are at dawn, indeed almost before it is light, and just as it is getting dark. As soon as they have eaten their fill, they dive under the snow and remain there until their next time of feeding. (*Spreadborough.*) It breeds early, usually commencing to lay in April. In April, 1897, I saw an egg as early as the 14th. Sometimes a strange locality is chosen for a nest. Once I found one containing twelve eggs at the foot of a beech tree, against the trunk and protected by it; forty feet up was a red-shouldered hawk's nest, which in due time hatched out, as did the grouse at the foot. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Three specimens, one taken at Ottawa in 1885 by Mr. George White, one at Toronto in 1882 by Mr. S. Herring, and one, a very good *B. togata*, at Revelstoke, B.C., April 23rd, 1890, by Mr. W. Spreadborough. Two sets of eggs, one taken by Dr. James Fletcher near Hull, Que., and the other near Niagara Falls, Ont., by the Rev. George Taylor.

300b. **Gray Ruffed Grouse.**

Bonasa umbellus umbelloides (DOUGL.) BAIRD. 1858.

According to the A. O. U. List this form ranges from the United States northward into British America, north to Alaska and east to Manitoba. Mr. Seton-Thompson, in his *Birds of Manitoba*, makes this form the resident of the aspen woods of Manitoba, and the writer believes this to be the species found in all parts of the wooded portions of the western prairie and the foothills of the Rocky Mountains, including the aspen forests on the Peace River and northward down the Mackenzie. Mr. W. Spreadborough reports this form to have been common from Edmonton to Jasper House in the Yellow Head Pass in 1898. In Alaska, however, Nelson states that this form is the only one, and that it has its home in the spruce forests and goes north as far as these forests extend. He also asserts that all specimens from north of Great Slave Lake, excepting the coast form, found along the Pacific, are referable to the gray northern form. By a careful sifting of the

statements of the various observers it will be seen that the range of the Gray Ruffed Grouse and the Canadian Ruffed Grouse are not well defined, and that these forms are so closely related that Mr. Seton-Thompson's line of demarcation seems to be the true test of the form, or rather colour, and that the resident of the aspen woods is *B. umbelloides*, while that of the spruce forests is *B. togata*. This leaves the true *B. umbellus* on the Atlantic coast and *B. sabini* on the Pacific coast.

BREEDING NOTES.—Two nests of this species were taken by the writer at Revelstoke, B.C., on the 13th and 18th of May, 1890. Both nests were in the same situation, on a burnt hillside beside a fallen log. One contained six and the other seven eggs. Both sets were quite fresh, but in each case the old bird rose from the nest or near it. All the birds shot around Revelstoke were of this form, except one which is good *B. togata*. This specimen may be a young bird only a year old, and might have changed to true *B. umbelloides* at the next moult.

MUSEUM SPECIMENS.

Two fine specimens taken at Revelstoke, B.C., April 12th, 1890, and another at Edmonton, Alberta, April 20th, 1897, all three by Mr. W. Spreadborough. One set of six eggs taken at Revelstoke, B. C., May 18th, 1890, by the writer.

300c. **Oregon Ruffed Grouse.**

Bonasa umbellus sabini (DOUGL.) COUES. 1872.

A few specimens of this bird were taken about Sitka by Bischoff, and others have been found in British Columbia, so that there is no doubt it occurs along the northwest coast as far as the heavily wooded region in the vicinity of Kadiak and the adjoining mainland. (*Nelson.*) One of the most abundant birds of the coast region of British Columbia, including all the islands in the Gulf of Georgia, Vancouver Island and Queen Charlotte Islands. To me this form is quite distinct, but yet I have been told by sportsmen that three varieties have been found in the same covey.

MUSEUM SPECIMENS.

Two fine specimens presented to the Museum by Mr. John Fannin, taken on Vancouver Island, 1885. Five eggs taken on Vancouver Island May 23rd, 1882, by the Rev. George Taylor.

CIX. **LAGOPUS.** BRISSON. 1760.301. **Willow Ptarmigan.**

Lagopus lagopus (LINN.) STEJN. 1885.

This species and the Rock Ptarmigan with their sub-species are found throughout the whole northern part of the American continent including all the islands on the Atlantic side from Newfoundland westward. Both species breed to the north of the thickly wooded country but the Willow Ptarmigan is more southern and less elevated in its range. In winter it enters the sub-arctic forest and often descends to the margins of the northern settlements, but the Rock Ptarmigan is much less common.

The breeding range of this species extends across Labrador and the region west of Hudson Bay and stretches northward into the Barren Grounds and southward into the spruce forest along their southern border. In Alaska it is also abundant but is restricted in summer to the barren sea-coast or on the open grounds of the interior. Its winter range is less defined as it is found much further south in some winters than in others. Mr. Brewster found this species with young birds at Fox Bay, Anticosti, in summer, so that the southern breeding limit may extend much further south than is indicated above.

A transient visitor about Montreal in winter, but common in eastern Quebec north of the St. Lawrence. We have no account of its occurrence in New Brunswick or Nova Scotia. A casual visitor on the Gatineau north of the city of Ottawa, and at the Sault Ste. Marie, Lake Superior. The three points cited above show that it may be looked for in winter in all the northern forest. Mr. Tavernier writes that Mr. Herring of Toronto showed him a freshly killed specimen taken at Whitby June 18th, 1899. Its winter range westward of Lake Superior to Lake Winnipeg is not well defined but Mr. Seaton-Thompson cites many instances of its occurrence in northern Manitoba and west and east of Lake Winnipeg. Thence westward its winter range seems to be confined to spruce woods, seldom coming south of Lat. 53° in the Saskatchewan country. Nelson and Turner unite in stating that it is a plentiful resident on the entire mainland coast of Alaska in summer; in winter it retires to the forest. The only notice of

its occurrence in British Columbia is at Dease Lake, in the northern part of the province.

BREEDING NOTES.—Mr. A. P. Low has taken many eggs in Labrador and says that the set ranges from nine to twelve. There is nothing peculiar about the nest that would separate it from that of the Ruffed Grouse. It was always found in a sheltered place, however. First observed in Labrador on June 23rd a short distance north of Fort George. Mr. A. Young on that date found a nest with thirteen eggs. Incubation pretty far advanced. After this a few were seen every day on islands in the bay until Richmond Gulf was reached. From there across Labrador to Ungava Bay they were very numerous and numbers of young were running about by the first week in July. I have very little doubt that they pair in the breeding season as we always found both old birds with the young brood, and the male makes just as much fuss as the female if one happens to go near their young. (*Spreadborough.*)

MUSEUM SPECIMENS.

Five specimens ; four were taken at Fort George, James Bay, by Dr. R. Bell, and the other at Fort Chimo, Labrador, by Mr. A. P. Low. Four sets of eggs ranging from four to eleven, all taken in Labrador by Mr. A. P. Low in 1894 and 1896.

301a. **Allen's Ptarmigan.**

Lagopus lagopus alleni STEJN. 1885.

Very abundant throughout the year, and the only lowland species indigenous to Newfoundland. (*Reeks.*)

MUSEUM SPECIMEN.

One taken in Newfoundland in December, 1894, and presented to the Museum by Mr. J. H. Fleming, of Toronto.

302. **Rock Ptarmigan.**

Lagopus rupestris (GMEL.) LEACH. 1817.

The range of this species is more alpine and more northern than that of the Willow Grouse and hence its breeding range is more northerly and its southward movement little beyond the margin of the open country or Barren Grounds. This species is very abundant on both sides of Hudson Strait, breeding in vast num-

bers on the islands to the north of the Strait. No authentic records of its being taken in Ontario or southern Quebec have been seen, and the same statement may be made of Manitoba and westward.

This bird is found around Hudson Bay, on Melville Peninsula and the Barren Grounds, seldom going further south in winter than Lat. 63° in the interior, but descending along the coast of Hudson Bay to Lat. 58°, and in severe seasons to Lat. 55°. (*Richardson.*) North of the Mackenzie to the Arctic coast rather rare. (*Ross.*) This species is not nearly so plentiful as the Willow Ptarmigan, and we only met with it in any considerable numbers from the Horton River Barren Grounds, to the shore of Franklin Bay. Very few nests were found to the eastward of that river or on the coast or "Barrens" of the Lower Anderson. (*Macfarlane.*) This beautiful bird is a common resident of the Alaskan mainland, from Behring Straits to the British border on the east, including the entire north and south extent of the mainland. (*Nelson.*) This species is found on all the hills and higher ground along the entire coast region of Alaska. In the interior it is found only on the mountain chains. It is abundant within the Arctic circle down to Kadiak Island. It is the only species of Ptarmigan found on the eastern Aleutian Islands. (*Turner.*) This species is a much less plentiful resident at Point Barrow than the Willow Ptarmigan. It breeds not far from the station, but I never found its nest. (*Murdoch.*) In crossing Labrador from Richmond Gulf to Ungava Bay, in 1896, only two young ones were seen, and these were near Ungava Bay, on Sept. 14th. (*Spreadborough.*)

MUSEUM SPECIMENS.

Three specimens; one taken at Cape Prince of Wales by Mr. F. F. Payne in 1885; two taken at Port Burwell, Hudson Strait, by Dr. R. Bell, in 1884. One set of eggs taken at the summit of Chilcoot Pass, Dalton Trail, N.W.T., June 14th, 1898, by Mr. J. B. Tyrrell; one set of eleven eggs, taken at Ungava Bay, Labrador, June 21st, 1896, by Mr. F. Boucher, and a set taken at Repulse Bay by Mr. A. P. Low.

302a. **Reinhardt's Ptarmigan**

Lagopus rupestris reinhardti (BREHM) BLASIUS. 1862.

The only species of the genus that inhabit Greenland, where it occurs equally on the east as on the west coast, found on both

Sabine and Clavering islands ; in great abundance on Parry Islands and Melville Peninsula. (*Arct. Man.*) A resident at Ivigtut, but most abundant in winter. (*Hagerup.*) According to Sabine, this bird inhabits the islands lying on the south-west side of Baffin Bay. (*Richardson.*)

302b. **Nelson's Ptarmigan.**

Lagopus rupestris nelsoni STEJN. 1884.

The types of this race were taken by Mr. Nelson, in spring, at Unalaska, and Dall collected winter specimens at the same place. This Ptarmigan is common on the Aleutian islands at least from Unalaska eastward, where it frequents the mountain tops and slopes, breeding there in June. (*Nelson.*)

302c. **Turner's Ptarmigan.**

Lagopus rupestris atkensis (TURNER) NELSON. 1883.

This Ptarmigan is quite plentiful on Atka, Amchitka and Attu islands ; it frequents the lowlands and hills of the western islands of the Aleutian chain. The nest is built amongst the rank grasses at the bases of the hills and lowlands near the beach. (*Turner.*)

302d. **Townsend's Ptarmigan.**

Lagopus rupestris townsendii ELLIOT.

Kyska and Adak islands, Aleutian chain. The specimens, a male and female, upon which this sub-species is founded were taken on the 8th June, 1894, on Kyska Island, and on the 4th July, 1893, on Adak Island, by Mr. Townsend. (*The Auk*, Vol. XIII, pp. 26-29, 1896.)

302.1. **Evermann's Ptarmigan.**

Lagopus evermanni ELLIOT. 1896.

Seven specimens, five males and two females, from Attu Island, one of the Near Island Group, brought by Prof. B. W. Evermann, Mr. C. H. Townsend and Dr. S. I. Call are all the representatives of this species yet obtained. The specimens described were taken in May 1892, and June 1894. (*The Auk*. Vol. XIII, pp. 24-26, 1896.)

303. **Welch's Ptarmigan.***Lagopus welchi* BREWST. 1885.

A truly alpine species in Newfoundland, rarely found below the line of stunted black spruce, (*Reeks.*) When Mr. Reeks wrote as above he believed this form to be the common Rock Ptarmigan. Since then Mr. William Brewster, of Cambridge, Mass., obtained specimens from Newfoundland, collected in 1883 by Mr. Welch, which led him to separate this form from the Rock Ptarmigan. Mr. Brewster says that according to Mr. Welch these ptarmigans are numerous in Newfoundland, where they are strictly confined to the bleak sides and summits of rocky hills and mountains in the interior. Unlike the Willow Grouse of that Island, which wander long distances and frequently cross the Gulf to Labrador, the Rock Ptarmigan are very local, and for the most part spend their lives on or near the hills where they were reared.

304. **White-tailed Ptarmigan.***Lagopus leucurus.* (SWAINS. & RICH.) 1831.

Mr. Drummond obtained four specimens of this bird in Lat. 54°, and another was obtained nine degrees further to the north by Mr. Macpherson. They inhabit the summits of the Rocky Mountains. (*Richardson.*) North on the Mackenzie to Lapierre's House in the mountains. (*Ross.*) Observed on the mountains above timber line both east and west of McLennen River, Lat. 54°, B.C., in July and August of 1898, (*Spreadborough.*) Summit of most of the mountains of the mainland; Beaver Pass, Mr. George Hyde; Cassiar, Mr. James Porter. (*Fannin.*) Resident on mountain tops. (*Brooks.*)

BREEDING NOTES.—This species was found on the summits of all the western mountains which have been ascended by the writer. On July 18th, 1887, a hen bird with a brood of chicks was found at an altitude of 6,000 feet on Mount Arrowsmith, Vancouver Island; on August 8-12th, 1889, numerous broods were seen on the Gold Range, B.C., at an altitude of 7,500 feet; on August 24th, 1885, three large broods were seen on the summit of Avalanche Mountain, near Glacier, B. C.; and lastly a brood was seen on the summit of Sulphur Mountain, close to Banff,

Rocky Mountains, on September 1st 1897. In all the cases cited, the birds were quite tame and the chicks had no apparent fear. In only one case was the nest found. It was a slight depression by a large stone with a lining of grass and a few feathers.

MUSEUM SPECIMENS.

Nine fine specimens in both winter and summer plumage are in the collection. A pair in winter plumage taken at Banff Feb. 24th, 1896, and purchased from Mr. Dippie. Three taken on the summit of the Gold Range, B. C., Aug. 8th, 1889, also four others taken in the Selkirk Mountains in August, 1890, all by Mr. W. Spreadborough.

CX. **TYMPANUCHUS** GLOGER. 1842.305. **Prairie Hen, or Pinnated Grouse.**

Tympanuchus americanus (REICH.) RIDGW. 1886.

In the first week of May, 1886, one specimen was shot on Hamilton beach; from various sources I have learned that this species is still seen along the southwestern frontier of Ontario, but their numbers are decreasing. (*McIlwraith.*) Mr. E. Seton-Thompson in his *Birds of Manitoba* gives a circumstantial account of the introduction of this bird into Manitoba, and shows that its first recorded appearance was in 1881 when one specimen was shot near Winnipeg. In the autumn of 1882 one specimen was shot at Portage la Prairie. From that time on it became more and more abundant in Manitoba, and in the autumn of 1895 the writer saw one in the flesh killed at Indian Head in Assiniboia. This species seems to be a true prairie bird as observers speak of it always being found in the open even in the severest weather.

MUSEUM SPECIMENS.

One fine specimen killed near Winnipeg, Man., in the spring of 1889. One set of five eggs procured from Mr. Raine.

CXI. **PEDIOCÆTES** BAIRD. 1858.308. **Sharp-tailed Grouse**

Pediocætes phasianellus (LINN.) ELLIOTT. 1862.

One specimen taken at the Saguenay River; another was exposed for sale in the market of Quebec, 1887; Mr. Cooper says

it has been taken in the valley of Lake St. John. (*Dionne.*) Reported as being found on the market at Sault Ste. Marie by Mr. Bampton. (*McIlwraith.*) Only one observed during the trip to Labrador in 1896. This specimen was shot, June 18th, a short distance south of Fort George. Said to be common at Moose Factory and Fort George in winter. On Oct. 13th, 1896, a specimen was brought to me at Beaumaris, Muskoka Lake, Ont. It had been killed within a mile of the place. Shortly afterwards I heard of two more being taken by Mr. Fraser, of Port Cockburn, at the head of Lake Joseph. Also of one or more at Bracebridge and several at Parry Sound. The bird I handled was a very dark bird and is evidently to be classed with the northern variety. Since the above captures I have not heard of any other birds being taken in Muskoka district. (*Spreadborough.*)

Mr. A. P. Low puts its northern limit in Labrador at Lat. 57°. It has been killed in winter at Great Whale River. Since the building of the Canadian Pacific Railway this bird has been seen frequently on the line between Mattawa, on the Ottawa River, and Fort William, west of Lake Superior. It has been supposed to be the prairie species working east, but its dark colour shows that it is the northern bird. It is extremely probable that in coming years it will be a common species in the sparsely settled parts of Northern Ontario.

The northern limit of the range of this grouse is Great Slave Lake, on the 61st parallel. It abounds on the outskirts of the Saskatchewan plains, and is found throughout the wooded districts of the Northwest Territories. (*Richardson.*) This grouse breeds in the pine forests on both sides of the Lockhart and Upper Anderson rivers, where one or two nests were met with. (*Macfarlane.*) This bird is mentioned by Dall as a not uncommon species at Fort Yukon and for 200 miles down this river to the Ramparts, below which it was not found. (*Nelson.*)

BREEDING NOTES.—These birds keep in pairs or small flocks and frequent the juniper plains all the year. The buds of these shrubs are their principal food in winter, as their berries are in summer. They generally remain about the same spot, unless disturbed; their flights are short. They frequently walk on the ground and when raised will fly to the top of an adjacent tree. In June they make a nest on the ground with grass and feathers.

They lay from four to seven white eggs with colored spots. (*Hutchins* vide *Seton-Thompson*.)

308a. **Columbian Sharp-tailed Grouse.**

Pediocætes phasinellus columbianus (ORD) COUES. 1872.

Very abundant at Indian Head, Assa., 1892, found feeding in stubble fields and around old straw-stacks. The males collect in large numbers on some hill about the end of April or beginning of May to have their annual dance which they keep up for a month or six weeks. It is almost impossible to drive them away from one of their hills when they are dancing. One day about the middle of May, I shot into a dancing party killing two and wounding another which flew a short distance, I went to get it and before I got back to pick up the dead birds the others were back dancing around them, I fired into them again, killing two and in less than five minutes they were back dancing again as though nothing had happened. (*Spreadborough*.) An abundant resident east of the Coast Range ; I found this bird very abundant along the Cariboo Road, from Pavilion Mountain to the 108-Mile post. (*Fannin*.) Common in some places in the interior, but said by settlers to be constantly diminishing in numbers. (*Streator*.) This form is very abundant from Manitoba westward, but is not a true prairie species as in the fall and winter it loves the poplar copse, willow thickets and margins of prairies or coulees where there is brush. We have taken it in the foothills, but not high up on the mountains. Mr. Spreadborough reports seeing the last of these birds 25 miles west of Edmonton, Alberta, in 1898. The same form is found at Kamloops and Spence's Bridge, B.C., and is doubtless common in southern British Columbia.

BREEDING NOTES.—The nest of this species is placed in the long, rank grass under some tuft that will aid in its concealment, and is usually not far from a tract of brush-land or other cover. It is little more than a slight hollow in the ground, arched over by the grass. The eggs are usually fourteen, but sometimes fifteen or sixteen in number. Immediately before expulsion they are of a delicate bluish-green ; on being laid they show a purplish grape-like bloom ; after a few days exposure they become of a deep chocolate brown, with a few dark spots. After a fortnight has transpired they are usually of a dirty white ; this change is partly due to bleaching, and partly to the scratching

they receive from the mother's bill and feet. (*Seton-Thompson*.) Our eggs of this species are exactly the size of the Upland Plover, being 1.75 x 1.25.

MUSEUM SPECIMENS.

Two specimens; one taken at Indian Head, Assa., in April, 1892, the other at Medicine Hat, Assa., April 11th, 1894, by Mr. W. Spreadborough. One set of eggs taken at Grenfel, Assa., in May, 1894, and presented to the Museum by Mr. R. Lake.

308b. **Prairie Sharp-tailed Grouse.**

Pediocætes phasianellus campestris RIDGW. 1884.

Plains and prairies of the United States, east of the Rocky Mountains; north to Manitoba. (*A. O. U. List*.) We have no knowledge of this form. All our birds killed in 1895, when on the southern prairie, were pale grayish in colour.

CXII. **CENTROCERCUS** SWAINSON. 1831.309. **Sage Grouse.**

Centrocercus urophasianus (BONAP.) SWAINS. 1831.

In June, 1895, while the writer was making an examination of the prairie region north of the International boundary between Wood Mountain, Assa., on the east and Chief Mountain in the west, special efforts were made to map out the range of the Sage Hen. It had been found in the valley of Frenchman River by the Boundary Commission in 1874, where it was recorded by Dr. G. M. Dawson. On June 14th we went into the "Bad Lands," south of Wood Mountain and had the good fortune to come upon about a dozen males where there was a little sage brush (*Artemisia cana*.) They all escaped and a whole day was spent trying to locate the females but none were seen. A week later we reached the valley of the White Mud or Frenchman River, a tributary of the Missouri, and before an hour had seen a number of old birds with young, and located a nest under sage brush where the chicks were just emerging from the shell. From this nest I obtained two nearly perfect eggs. Specimens were procured and later we traced the birds up the valley of the White Mud to its source in the Cypress Hills. In no case was any bird found away from *Artemisia cana*. At Osoyoos Lake where the species has

been taken, the true sage brush (*Artemisia tridentata*) occurs in some quantity. We saw no signs of this species in the Upper Milk River valley although we travelled along it for more than 100 miles.

Three specimens were taken by Mr. G. B. Martin, M.P.P., at Osoyoos Lake, B.C., in October, 1864. Mr. Charles de B. Green, writing from Osoyoos, March 21st, 1896, said he had two most reliable reports of the occurrence of Sage Hens in this locality. (*Fannin.*)

MUSEUM SPECIMENS.

Four taken in the valley of White Mud River, Assa., in June, 1895, by Mr. W. Spreadborough. Two imperfect eggs taken by the writer on June 21st, 1895.

XXVI. FAMILY PHASIANIDÆ. PHEASANTS, TURKEYS, &c

CXIII. MELEAGRIS LINNÆUS. 1758.

310. Wild Turkey.

Meleagris gallopavo LINN. 1758.

Wild Turkeys were formerly quite common in southwestern Ontario, but are now getting rare. In 1880 Dr. Garnier, of Lucknow, killed two males "at Leguis farm near Mitchell Bay," and in 1884 saw a dead female at Chatham station which had just been killed. (*McIlwraith.*) Almost extinct. A few may still be left in the western counties of Ontario, but I have been unable to hear of any in the last two or three years. (*W. Saunders.*) Last specimen seen alive at Plover Mills, Ont., was in 1870. (*R. Elliott.*)

MUSEUM SPECIMENS.

Two fine birds taken near Windsor, Ont., by Mr. S. Herring.

CXIV. PHASIANUS LINNÆUS. 1858.

310a. Ring-necked Pheasant.

Phasianus torquatus LINN. 1858.

Introduced from China; now thoroughly acclimatized on Vancouver Island and portions of the Mainland of British Columbia. (*Fannin.*)

MUSEUM SPECIMENS.

One pair taken on Vancouver Island and presented to the Museum by Mr. J. Fannin.

ORDER COLUMBÆ. PIGEONS.

XXVII. FAMILY COLUMBIDÆ. PIGEONS.

CXV. COLUMBA LINNÆUS. 1758.

312. **Band-tailed Pigeon.**

Columba fasciata SAY. 1823.

Never seen in large flocks in British Columbia. (*Lord.*) A very common summer resident in the coast district ; flocks of several hundred have been seen sitting in the trees at one time. (*Streator.*) Irregular through the southern portions of British Columbia ; a summer resident ; tolerably common. (*Fannin.*) Abundant summer resident in Lower Fraser valley. (*Brooks.*) Abundant on the south end of Vancouver Island. A summer resident also on the mainland and in the valley of the Fraser River. (*Spreadborough.*)

MUSEUM SPECIMENS.

One taken at Agassiz, B. C., May 8th, 1889, by Mr. W. Spreadborough.

CXVI. ECTOPISTES SWAINSON. 1827.

315. **Passenger Pigeon.**

Ectopistes migratorius (LINN.) SWAINS. 1827.

At one time breeding in Nova Scotia, but now scarcely if ever seen. (*Downs.*) Very seldom seen in New Brunswick now, but formerly abundant. (*Chamberlain.*) Specimens obtained at Moose Factory, Hudson Bay, by Drexler, August, 1860. Verrill saw a single individual at Heath Point, Anticosti, in 1860. (*Packard.*) Fort Churchill, Hudson Bay. (*Clarke.*) Charlesbourg, possibly breeds in Quebec. (*Dionne.*) Common migrant in the district of Montreal, in 1862. (*Dr. Hall.*) Transient visitor ; scarce. Two were shot the latter end of August, 1883, at Chambly, and one was shot September 15th, 1885, on the spur of Mount Royal ;

and two were shot at the latter place by myself, one, September 10th, 1886, and the other one September 1st, 1888, both of which are now in my collection of bird's skins. Mr. C. W. Johnson, of Lachine, says he shot fifteen wild pigeons in the woods, four miles north of that place on the 9th December, 1888. The specimens I shot appear to be a female and young male bird. I saw a female or immature passenger pigeon in a tree on Mount Royal Park, June 4th, 1891. (*Wintle.*) A summer resident; breeds. (*Ott. Nat.*) A few straggling pairs are still seen in southern Ontario where they probably breed, but the large annual migrations have entirely ceased. (*McIlwraith.*) Breeding in an aspen grove at North-west Angle, Lake of the Woods, Man., 1873. (*G. M. Dawson.*)

This celebrated pigeon arrives in the Northwest Territories in the latter end of May, and departs in October. It annually reaches the 62nd parallel in the warmer central districts, but reaches the 58th parallel on the shores of Hudson Bay in fine summers only. (*Richardson.*) North, on the Mackenzie, at Fort Norman; not common. (*Ross.*) Probably now extinct in British Columbia. (*Fannin.*)

Our latest notices of this species are taken from Mr. Seton-Thompson's *Birds of Manitoba*. In this work he shows that it still breeds in considerable numbers in northern Manitoba, as late as 1887, and as far as the writer is aware may do so still. While making an exploration in northern Manitoba, in the summer of 1881, the writer had the good fortune to discover a small breeding place of these birds on the 23rd June. It was on the left bank of the Waterhen River, a deep stream which connects Lake Manitoba with Lake Winnipegosis. There were less than a score of nests which were variously placed, some of them less than ten feet from the ground, and not in large trees. They were such flimsy structures that the eggs were clearly seen through the interstices from below, and one old bird was shot as she sat. Only two eggs were taken.

In the latter part of August and early in September of the same year, on the Swan River, above Livingstone, and also on the upper Assiniboine, we saw large flocks and as food was scarce we shot large numbers for the pot. The low flats along the river were covered with *Cornus stolonifera*, and on the ripe berries of this shrub they were feeding.

MUSEUM SPECIMENS.

One pair taken in Ontario many years ago. A set of eggs taken at Moose Factory, James Bay, June, 1888, by Mr. Miles Spence.

CXVII. **ZENAIDURA** BONAPARTE. 1854.316. **Mourning Dove.**

Zenaidura macroura (LINN.) RIDGW. 1885.

Appears to be becoming common. A few killed every year in Nova Scotia. (*Downs.*) Occasionally taken in New Brunswick. (*Chamberlain.*) Taken at Château Richer, Montmorency Co., three specimens at Godbout, one at St. Joachim, and one at Quebec. (*Dionne.*) One killed in the district of Montreal, in June, 1838. (*Dr. Hall.*) The Mourning Dove breeds sparingly throughout southern Ontario. (*McIlwraith.*) More common to the west of London, Ont., than in its vicinity. Sometimes comes into the outskirts of the city and breeds in gardens. (*W. Saunders.*) Occasionally seen in winter at Plover Mills, Ont. (*R. Elliott.*) A rather common summer resident in Manitoba, but rarer westward in the prairie region, though not uncommon. Mr. Spreadborough reports a few stragglers (males) during the last days of May at Indian Head, Assa., in the spring of 1892.

Never seen in large flocks in British Columbia. (*Lord.*) Not uncommon in the interior; more were seen near the coast. (*Streator.*) Mainland and Vancouver Island; nowhere common. (*Fannin.*) Tolerably common summer resident in the Lower Fraser valley. (*Brooks.*) The writer has found this bird numerous at only two points, between Manitoba and the Pacific coast. These were Medicine Hat, Assa., and Spence's Bridge, B.C. In both places they were evidently breeding but no nests were taken.

BREEDING NOTES.—A tolerably common summer resident near Portage la Prairie, Man., breeding in small wild plum trees. It arrives about the first of May. Nest found containing two eggs, on which the bird was sitting, June 7th, 1885. (*Nash* vide *Seton-Thompson.*) On July 1st, 1899, Mr. Robert Fraser, of Plover Mills, Ont., found a nest of this species in the middle of his clover meadow. This is the first that has come under my notice of this

bird nesting on the ground. I examined the nest and saw the shells of the two eggs. Nest a poor affair of a few small twigs. (*R. Elliott.*)

MUSEUM SPECIMENS.

Seven specimens ; five taken in May, 1889, at Spence's Bridge, B. C., and two at Medicine Hat, Assa., May, 1894, by Mr. W. Spreadborough. One set of eggs taken at Chatham, Ont., received from Mr. Raine.

