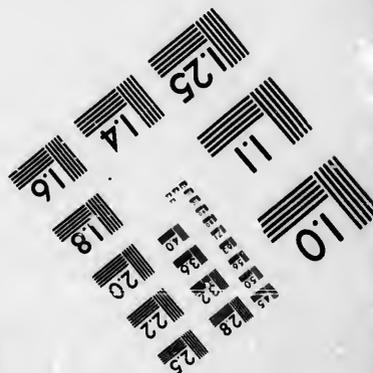
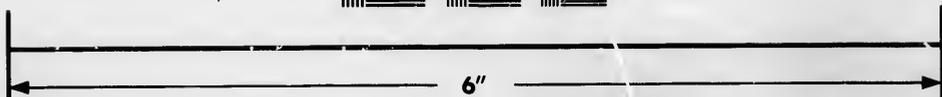
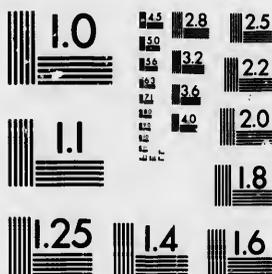


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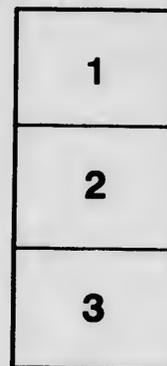
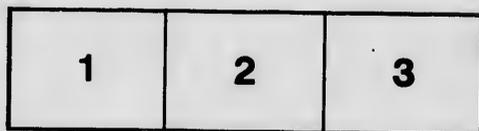
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GEOLOGICAL SURVEY OF CANADA
ROBERT BELL, M.D., Sc.D., (CANTAB.), L.L.D., F.R.S.

CATALOGUE
OF
CANADIAN BIRDS

PART III

SPARROWS, SWALLOWS, VIREOS, WARBLERS,
WRENS, TITMICE AND THRUSHES.

INCLUDING THE ORDER :

PASSERES AFTER THE ICTERIDÆ.

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 KING'S MOST
EXCELLENT MAJESTY
1904

As promised in a prefatory note to the second part of the Catalogue of Canadian Birds, Part III of this work is issued the present autumn. The original intention in preparing a Catalogue of Canadian Birds was to complete the work in two parts, but the large amount of valuable information, which had become available by the time Part II was finished, rendered a third part necessary. This part entirely completes the work for the present ; but the additional knowledge of our birds which will no doubt accumulate in the next few years may necessitate further publications on this subject in the future.

ROBERT BELL.

GEOLOGICAL SURVEY, OTTAWA,
November 9, 1894.

P R E F A C E .

Although only a year has passed since the publication of Part II of this Catalogue, Part III will be found to include notes from several new observers. These notes and the fact that our knowledge of the smaller birds, and especially of their breeding habits, is much more complete than was the case with those covered by the previous parts account for the larger size of the present number. Mr. William Spreadborough, who has worked as my field assistant for so many years, collected in the spring of 1903 in the vicinity of Lake Okanagan in southern British Columbia; during the remainder of the season he was with Mr. James M. Macoun in the Peace River region in Lat. 56°. During part of April and nearly the whole of May, 1904, Mr. Spreadborough collected in the vicinity of Fernie and Elko, B.C., and I have been enabled to include a few of his notes in the latter part of the Catalogue. At the time of writing Mr. Spreadborough is en route for Hudson Bay where he will spend the summer, chiefly in the study of the breeding habits of the waders. Lists of birds and notes on their relative abundance have been furnished me by Mr. Alfred L. Garneau, Ottawa, Ont., Mr. A. B. Klugh, Guelph, Ont., Mr. A. F. Young, Penetanguishene, Ont., Mr. Norman Criddle, Aweme, Man. and Mr. E. F. G. White formerly residing in British Columbia, but now at Ottawa.

Many doubtful or immature birds have been submitted to Mr. H. C. Oberholser, Assistant Curator, Smithsonian Institution, Washington, D.C., and I have accepted his determinations in every instance. Mr. Oberholser also examined all the sparrows and warblers which have been found to vary as we cross the continent. Much additional information regarding the birds included in the first two parts has come to my hands and this will, in the near future, be published in the form of an addendum to the complete Catalogue.

In bringing to a close a work, which though arduous has given me not less pleasure than the compilation of my larger Catalogue of Canadian Plants, I wish again to thank my many correspondents for the information and assistance they have so freely given

me. Not the least valuable part of the Catalogue is that which includes the manuscript notes furnished me by these observers. My only aim has been to bring together all our available knowledge of the distribution and the breeding habits of our Canadian birds and if I have succeeded in presenting this information in a form that will make it useful to ornithologists and bird-lovers, my labour has not been in vain. It will not be difficult for future workers to add to the matter here published or to correct the errors which are unavoidable in a work of this kind.

Mr. James M. Macoun has been of great assistance to me in the preparation of the manuscript of the several parts for the press and in the revision of the proofs. The index was made by Miss Marie C. Stewart, under my direction.

JOHN MACOUN.

OTTAWA, 7th Nov., 1904.

ERRATA.

E. A. Prebles should be E. A. Preble.

Avenue, Man., should be Aweme, Man.

On pages 266, 272 and 275, Mr. Hay should read Mr. Kay.

The note credited to Mr. J. H. Fleming on page 408 should have been placed under *Icterus spurius* on page 403.

The name of the genus *Carduelis* was omitted near the bottom of page 441 and should be inserted.

FAMILY XLIII. **FRINGILLIDÆ**. FINCHES, SPARROWS, &C.

CLXXXIII. **HESPERIPHONA** BONAPARTE. 1850.

514. **Evening Grosbeak.**

Hesperiphona vespertina (COOP.) BONAPARTE. 1850.

A rare winter visitant at Montreal. I believe the first record of the occurrence of this species here was during the winter months of the year 1890, when several were observed January 28th, in McGill College grounds by Dr. Harrington of this city. (*Wintle*.) In the spring of 1899 one fine male was shot in Rockcliffe Park by Mr. Muirhead who was a guest at Government House. (*Macoun*.) A rare winter visitor. Seen in considerable numbers at Guelph, Ont., during February, 1902, a flock of seventy-five being seen on the 6th of that month by Prof. M. W. Doherty. (*A. B. Klugh*.) Sometimes appears in large flocks in winter; it comes into the Parry Sound district much more regularly than is supposed. A flock remained at Emsdale till the end of the first week in May, 1897, feeding on the seeds of the sumac. (*J. H. Fleming*.) Since the winter of 1889-90, I have only seen two or three specimens of this bird around Toronto; the last, a female, being taken near the city in April, 1897. (*J. Hughes-Samuel*.) This species is an abundant winter visitor at Portage la Prairie and Winnipeg and in other parts of Manitoba. It generally appears about the middle of October. From that date it continually increases in numbers until December when it reaches its maximum. Whilst here it frequents the Northwest maple or box elder, feeding on its seeds, and seldom visits the ground, except in spring, when it will sometimes crowd thickly on a bare spot, apparently seeking small gravel for digestive purposes. As far as known its nest has never been found. (*Thompson-Seton*.) This gay and very remarkable bird is a common inhabitant of the maple groves (*Negundo aceroides*) on the Saskatchewan plains. As it arrives late we left Carlton House before they arrived, but Mr. Prudens kindly sent specimens to us. It frequents the borders of Lake Superior also, and the eastern declivity of the Rocky Mountains, in Lat. 56°, but its habits are unknown. (*Richardson*.) I have not seen this bird alive myself but have seen two that were killed at Prince

Albert, Sask. It is scarce. (*Coubeaux.*) Not uncommon at Edmonton, Alberta, between April 16th and May 14th, 1897, when they disappeared. Two specimens were seen on the trail between Lesser Slave Lake and Peace River Landing, Atha., in June, and a pair with young birds just able to fly at Dunvegan, Lat. 56°, July 26th, 1903. (*Spreadborough.*)

MUSEUM SPECIMENS.

Nine; four taken at Mimico, Ont., in February, 1890, by Mr. S. Herring; two obtained in Winnipeg, Man., by Dr. A. R. C. Selwyn, in 1885; three taken at Edmonton, Alta., on May 14th, 1898, by Mr. W. Spreadborough.

514a. **Western Evening Grosbeak.**

Hesperiphona vespertina montana (RIDGW.) MEARNS. 1890.

British Columbia. (*Mearns.*) Met with in the interior only; in August they were passing southwards in flocks of considerable size. (*Streator.*) East of Coast Range, B.C., straggling west (in winter) to lower Fraser and Vancouver Island. I found it at the summit of the Coast Range in June, 1891. (*Fannin.*) One shot out of a flock of twelve March 31st, 1894, at Seymour Creek, Burrard Inlet, B.C. (*E. F. G. White.*) Tolerably common resident at Chilliwack, B.C.; common winter resident at Okanagan, B.C. (*Brooks.*) Valley of the Columbia. (*Lord.*) Seen as a spring migrant at Banff, Rocky Mountains in April, 1891, (perhaps the eastern form); quite common along both Arrow lakes, Columbia River, B.C. in June, 1890; rather common in small flocks at the mouth of Pass Creek, near Robson, B.C.; they were apparently getting ready for a second brood, June 21st; eating poplar buds; May 15th, 1901, observed a flock of about fifteen at Chilliwack, B.C.; a small flock was seen at Penticton, B. C., April 14th, 1903; one seen near Victoria, Vancouver Island, May 24th, 1893, the only one seen that summer. (*Spreadborough.*) In April, 1887, a small flock seen at Comox, Vancouver Island. (*Macoun.*)

CLXXXIV. **PINICOLA** VIEILLOT. 1807.

515. **Pine Grosbeak.**

Pinicola enucleator leucura (MULLER) RICHMOND. 1902.

An abundant summer resident at Fort Chimo, Labrador; breeds there, nest and eggs obtained. Plentiful in southern districts

among timbered tracts. Resident south of the "height of land." (*Packard.*) One seen at Richmond Gulf, July 1st, 1896; not again observed in Labrador. (*Spreadborough.*) Three specimens taken at Cullingham's Cove, Hamilton Inlet, Labrador, 1891. (*Norton.*) Common throughout the year in Newfoundland. (*Reeks.*) Common in winter in Nova Scotia. (*Downs.*) Abundant during December and first two weeks in January in Cumberland Co., N.S., after which none were seen, with the exception of one pair seen at Shulee, April 3rd, 1899. (*Morrell.*) Common in the spruce woods north of Atillik, northeast coast of Labrador, beyond which spruces dwindled into low bushes. (*Bigelow.*) A flock of several was seen at Sydney, Cape Breton Island, N.S., May 24th, 1902. Known locally as "Ortolan." (*C. R. Harie.*) Appears regularly about the first of December at Kings Co., N.S., and remains till March. (*H. Tufts.*) Common in New Brunswick in winter. (*Chamberlain.*) Rare summer resident near Scotch Lake, York Co., N.B., breeds to the north of the province. (*W.H. Moore.*) Found nesting in the valley of Restigouche, N.B. (*Brittain & Cox.*) Common in the winter at Lake Mistassini, Que. (*J. M. Macoun.*) Common summer resident in eastern Quebec. (*Dionne.*) A common winter visitant at Montreal; they often visit the city in such places where mountain ash trees with berries are to be found; observed from October 30th to April 26th. (*Wintle.*) Irregularly abundant at Ottawa, Ont. It appeared in immense numbers in the winter of 1882-3 and again in 1888-9 as did many others of our winter birds. (*Ottawa Naturalist*, Vol. V.) More or less common in Ottawa every winter. (*Macoun.*) In March, 1895, I saw several of these birds at Lansdowne, Ont., feeding on the seeds of the black ash. In the month of June, 1897, I found them common on the Magdalen Islands, Que., where a few breed in the thick woods. (*Rev. C. J. Young.*) A common winter resident, sometimes appearing in immense flocks. In the districts of Parry Sound and Muskoka, in September, 1898, I saw small flocks feeding on the tops of the highest pines. (*J. H. Fleming.*) A winter visitor at Guelph; fairly common some years, in others entirely absent. (*A. B. Klugh.*) A winter resident at Penetanguishene, Ont. Very plentiful during the winter of 1900 and 1901, when the beech nuts were a very heavy crop, at which time they could be seen in the beech woods picking at the hulls of the remaining nuts. (*A. F. Young.*)

A somewhat common winter visitor in Manitoba; possibly nesting in the northern spruce woods. (*Thompson-Seton.*) A male was seen perched on a tree overhanging Hill River, near the mouth of Fox River, July 8th, 1900; the species was reported to us by the residents at Fort Churchill. (*Edward A. Preble.*) On April 15th, 1892, shot a male at Indian Head, Assa., his stomach was full of poplar and willow buds and a few seeds of the wild buckwheat; none was seen afterwards. (*Spreadborough.*) This species leads a quiet and retired life in the gloomiest recesses of the coniferous forests; it is seldom seen. It was not observed north of the sixtieth parallel by any member of the expedition. It builds its nest on the lower branches of a tree and feeds chiefly upon the seeds of the spruce. (*Richardson.*) North, on the Mackenzie River, to Fort Good Hope; not rare. (*Ross.*) In the spring of 1861 an Indian discovered a nest of this species about 60 miles south of Fort Anderson, we never discovered another. (*Macfarlane.*) Tolerably common in small flocks and more frequently seen along the banks of both branches of the Saskatchewan. This bird is one of our constant winter visitors, arriving about the end of October and leaving about the end of March. (*Conbeaux.*)

MUSEUM SPECIMENS.

Nine; three taken at Ottawa in December, 1888, by Mr. G. R. White; two taken at Ottawa in January, 1889, by Mr. S. Herring; one purchased with the Holman collection in 1885; two taken at Bracebridge, Ont., March, 1892, and one at Indian Head, Assa., April, 1892, by Mr. W. Spreadborough.

515a. **Rocky Mountain Pine Grosbeak.**

Pinicola enucleator montana RIDGW. 1898.

This species was taken at Banff, Rocky Mountains in 1891; both old and young birds seen at Canmore near Banff in June, 1885; saw two on a mountain on the north side of the Miette River near Jasper House, Alta., August 29th, 1898; common around Revelstoke, B.C., up to April 28th, 1890; their chief food was buds of balsam poplar; seen as late as May 23rd in the Eagle Pass, B.C.; and one seen near the summit of a mountain at Robson, Columbia River, B.C., June 24th, 1890; observed a small flock at an altitude of about 5000 feet east of the Columbia River

on the International Boundary, B.C., September 10th, 1902. (*Spreadborough.*)

BREEDING NOTES.—I have a nest and 4 eggs that were taken at Banff in the Rocky Mountains, June 3rd, 1896. The nest is composed of twigs, roots, and grass; lined with fine roots and hair. It was built on the branch of a spruce tree about 15 feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Two, taken at Revelstoke, B.C., April 23rd, 1890, by Mr. W. Spreadborough.

515c. **Alaskan Pine Grosbeak.**

Pinicola enucleator alascensis RIDGW. 1898.

Northwestern North America, including wooded portions of Alaska except Kadiak and the southern coast district, south in winter to Montana and eastern British Columbia. (*Ridgway.*) A winter visitant to the valley of the Chilliwack River, B.C.; common winter resident in Cariboo district; breeds in the timber zone and winters at Okanagan on the mountains. (*Brooks.*) Not rare on Mount Queest, Gold Range, Shuswap Lake, B.C., alt. 6000 feet, August, 1889. (*Spreadborough.*) East and west of Coast Range, except Vancouver Island, also taken at Fort Simpson, B.C., by W. B. Anderson. (*Fannin.*)

Along the entire west and northwest coast of America from Vancouver Island north to within the Arctic Circle, this bird occurs in greater or less abundance. The only breaks in this range are the treeless areas which occur along the coast of Behring Sea. Throughout the interior of the above region it is an abundant species. (*Nelson.*) This species is a resident of the interior and wooded districts of the entire territory of Alaska. (*Turner.*) Sheep Creek and Homer, Kenai Peninsula, Alaska; at these places nine specimens were taken in July and September, 1901. The patches of cottonwood were the favorite haunts of this bird. They were never found in spruce timber except while perched upon the topmost branch of a dead tree, where they remained but for a few minutes. During heavy rain storms they repair to the lower underbrush and even the low grass. (*Chapman.*)

BREEDING NOTES.—The Alaskan pine grosbeak proved to be a common resident throughout the year in wooded tracts from the

delta through the Kowak valley. My first acquaintance with this species was made on the 25th August, '98, when two adults and two full-grown young were observed. They were silent save for a low, mellow call-note, and were feeding on the green alder seed-pods. I secured the two adults, which were in moulting plumage. In September and October pine grosbeaks were quite numerous, being often met with in companies of six to a dozen, immatures and adults together. They were usually among the scattering birch and spruce which line the low ridges. There, until the snow covered the ground, they fed on blue-berries, rose-apples and cranberries. During the winter their food was much the same as that of the redpolls—seeds and buds of birch, alder and willow, and sometimes tender spruce needles. In the severest winter weather they were not often in the spruce, but had then retired into the willow beds. The usual note is a clear whistle of three syllables. The native name Ki-u-täk represents it. Then there was a low, mellow, one-syllabled note uttered among members of a flock when alarmed. Twice I noted solitary males, when flying across the woods, singing a loud, rollicking warble, much like a purple finch. One morning, the 18th February, found me across the river skirting the willows in search of ptarmigan. Although it was 50 degrees below zero, a pine grosbeak, from the depths of a nearby thicket suddenly burst forth in a rich melodious strain, something like our southern black-headed grosbeak. He continued, though in a more subdued fashion, for several minutes. Such surroundings and conditions for a bird-song like this! Again one day in March, during a heavy snow-storm, a bright red male sang similarly at intervals for nearly an hour, from an alder thicket near the cabin, and as summer approached their song was heard more and more frequently. Not until May 25th did I discover a nest. This was barely commenced, but on June 3rd, when I visited the locality again, the nest was completed and contained four fresh eggs. The female was incubating, and remained on the nest until nearly touched. The nest was eight feet above the ground on the lower horizontal branches of a small spruce growing on the side of a wooded ridge. The nest was a shallow affair, very much like a tanager's. It consisted of a loosely-laid platform of slender spruce twigs, on which rested a symmetrically-moulded saucer of fine, dry, round-stemmed grasses. Its depth was about one inch and internal diameter 3.25. The eggs are pale

Nile blue with a possible greenish tinge, dotted and spotted with pale lavender, drab and sepia. The markings are very unevenly distributed, the small ends of the eggs being nearly immaculate, while there is a conspicuous wreath about the large ends. The markings are not abruptly defined, but the margins of the spots are distinct, fading out into the surrounding ground colour. One of the eggs is more thickly and evenly sprinkled with various tints of bistre. The eggs are rather ovate in shape, but the small ends are blunt. On June 11th, in the Kowak delta, I found a similarly constructed nest containing four small young; this was six feet up in a dwarf spruce, and on the 12th, I found another nest in all particulars like the other two, and containing four eggs almost ready to hatch. My series of 44 skins of *P. e. alasensis* confirms the distinctness of that race; the Kowak River birds present an extreme of ashness. (*Grinnell*)

515d. **Kadiak Pine Grosbeak.**

Pinicola enucleator flammula (HOMEYER) RIDGW. 1898.

Island of Kadiak, Alaska, and Alaskan coast southward at least to Sitka [probably coast of British Columbia at least in winter.] (*Ridgway*.)

CLXXXV. **PYRRHULA** BRISSON. 1760.

516. **Cassin's Bullfinch.**

Pyrrhula cassini (BAIRD) TRISTAM. 1871.

The presence of this bird in the North American fauna rests solely upon the capture of a specimen at Nulato on the middle Yukon, January 10th, 1867, by Mr. Dall. (*Nelson*.)

On July 19th, 1879, in the northern waters of Cumberland Gulf, Mr. Ludwig Kumlien saw a bird which he could not secure and which in his opinion was either this species or *Pyrrhula europæa*, possibly the latter. We have been unable to obtain any further records.

CLXXXVI. **CARPODACUS** KAUP. 1829.

517. **Purple Finch.**

Carpodacus purpureus (GMEL.) GRAY. 1844.

Kumlien obtained a specimen on shipboard off Resolution Island; Drexler obtained it at Moose Factory May 28th, 1860;

occurs plentifully in southern portions of Labrador. (*Packard.*) Common on Moose River to James Bay at Moose Factory; none seen further north in 1896. (*Spreadborough.*) Common in Nova Scotia; a few stop all winter. (*Downs.*) A pair seen at Shulee, Cumberland Co., N.S., Jan. 2nd, 1899. (*Morrell.*) Bayley says this species is common at Sydney, Cape Breton Island, and breeds. (*C. R. Harte.*) Common in summer in Kings Co., N.S.; a few remain through the winter. (*H. Tufts.*) Common at Margaree and Baddeck, Cape Breton Island, N.S., July, 1898; breeding in the woods at Brackley Point, Prince Edward Island, June, 1888. (*Macoun.*) Sparingly distributed; a restless and roving species, and seen singly or in pairs on Prince Edward Island. (*Dwight.*) A common resident in New Brunswick. (*Chamberlain.*) Tolerably common summer resident, but very irregular in its time of arrival in spring at Scotch Lake, York Co., N.B.; nests in conifers from a few feet up in low bushes in pastures to high up in forest trees. (*W. H. Moore.*) Rather rare in the Gulf of St. Lawrence; a male seen and others heard on the Magdalen Islands. (*Bishop.*) Common in the Restigouche valley, N.B. (*Brittain & Cox.*) An abundant species of general distribution about the shores of the Gulf of St. Lawrence and its islands. (*Brewster.*) Rather common summer resident in eastern Quebec. (*Dionne.*) A common summer resident but some remain all winter. Breeds on the island of Montreal. I found a nest containing four eggs, June 20th, 1891, in Mount Royal park, built in a small spruce tree; have noticed them from Feby. 5th to Oct. 25th; often feeding in winter on mountain ash berries. (*Wintle.*)

A common summer resident at Ottawa, Ont.; abundant in migration. There are a few winter records of this species one of which is Dec. 29th, 1885. (*Ottawa Naturalist*, Vol.V.) A common summer resident in the districts of Parry Sound and Muskoka. (*J. H. Fleming.*) Abundant at C ache Lake, Algonquin Park, Ont.; breeding in low, wet woods. (*Spreadborough.*) Often seen in numbers but certainly a much less frequent summer resident than formerly. In 1886 many stayed all summer in London, Ont., where they had been scarce during several previous years. In 1899 its scarcity was remarkable. It is seen the whole year round but most noticeably common in spring. (*W. E. Saunders.*) A common migrant in spring and fall at Guelph, Ont.; arrives about April 15th and leaves about Oct. 4th; a few breed. (*A. B. Klugh.*) This species

was several times heard early on the morning of June 16th, 1900, at Bull Head Point, Lake Winnipeg, where the steamer stopped for wood. (*Edward A. Preble.*)

This species was found in small numbers on Turtle Mountain, Manitoba, during the latter part of July. It doubtless breeds in the locality; not seen further west, (*Coues.*) Summer resident in Manitoba; arrives about April 20th, and departs about Oct. 15th; shot a male in full song, May 14th, 1883; it had been feeding on poplar catkins. (*Thompson-Seton.*) First seen at Indian Head, Assa., April 21st, 1892, quite common by May 12th; a few breed there as I saw them late in June; this species arrived at Edmonton, Alta., on May 3rd, 1897, and soon commenced to nest in the tall trees; observed one at Lake Ste. Anne, 60 miles from Edmonton, Alta., June 8th, 1898; a few were observed from the mouth of Lesser Slave River to Peace River Landing, Atha., in Lat. $56^{\circ} 15'$, June, 1903; taken at Canmore, Alta. but not rare at Banff on the Bow River within the Rocky Mountains, May 27th, 1891, where they were breeding; one seen in the Crow's Nest Pass in August, 1897. (*Spreadborough.*) This bird was seen by us only on the banks of the Saskatchewan where it feeds on willow buds. It is a summer visitor, arriving in the month of May. (*Richardson.*) The single male, secured at the Grand Rapids of the Saskatchewan, agrees perfectly with this species. (*Nutting.*) Not rare at Athabasca Landing and up the Athabasca to Lesser Slave River; a few birds at Fort McMurray, but none seen up the Clearwater River, Lat 56° ; not rare but local between Methye Portage and Isle à la Crosse, Sask. (*J. M. Macoun.*) I saw this beautiful finch for the first time last April and beginning of May in company with juncos and tree sparrows. (*Coubeaux.*) On June 8th, 1893, at Banff, Alberta, I found a nest and eggs of this species built in a willow bush five feet from the ground. (*W. Raine.*)

BREEDING NOTES.—Nest built on a horizontal bough composed of vegetable matter, fibre and rootlets, lined with hair. Eggs, four, pale dull greenish, almost white, sparsely sprinkled with blackish and lilac. (*G. R. White.*) A bird that is hardly as plentiful, apparently, in Ontario, as in former years. I have found the nest three times in Ontario, twice in a small spruce tree and once in a cedar. I also saw a nest at Lansdowne, Ont., in a small maple. This is a late breeder, all the eggs I have seen were laid

in June. (*Rev. C. J. Young.*) Breeds in May and June around Ottawa, Ont., also at Lake Nominigue, 100 miles north of it. The nest is built in coniferous trees from five to fifteen feet from the ground and is composed of twigs, rootlets, vegetable down and wool with a lining of hairs. Eggs, four to five in the set. (*Garneau.*)

MUSEUM SPECIMENS.

Twelve; four taken at Ottawa in May, 1888, by Prof. Macoun; one at Indian Head, Assa., in May, 1892; and one at Peace River Landing, Atha., Lat. $56^{\circ} 15'$, June 19, 1903; three at Edmonton, Alta., May 4, 1898; one at Canmore, Rocky Mountains, Alta., by W. Spreadborough; two at Ottawa in November, 1890, by Dr. F. A. Saunders.

Four sets of eggs; three of four each taken at Wolfeville, N.S., on June 17th, 1895, by H. Tufts; one set of four taken at Hull, Que., May 28th, 1899, by Mr. A. R. Legge. Nest in a small spruce about 8 feet from the ground. Outside made of grass and small twigs; lined with cow's hair.

517a. **California Purple Finch.**

Carpodacus purpureus californicus BAIRD. 1874.

Abundant summer resident on both sides of the Coast Range. (*Lord.*) Common in the coast region; few specimens were taken in purple plumage. (*Streator.*) An abundant summer resident, chiefly west of the Coast Range; breeds both on Vancouver and the mainland. (*Fannin.*) Common summer resident at Chilliwack, B.C. (*Brooks.*) Very common at Hastings, Port Heney and Agassiz, B.C. in April, 1889; very abundant at Chilliwack and Huntingdon, B.C.; feeding on the seeds of the crab-apple in the autumn of 1901; tolerably common near Victoria and quite common at Comox, Vancouver Island, in June, 1893. (*Spreadborough.*) Found breeding on the coast of British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Twelve; two at Agassiz, B.C.; three at Chilliwack, B.C.; two at Burrard Inlet, B.C., four at Huntington, B.C.; and one at Victoria, Vancouver Island; all by Mr. Spreadborough.

518. **Cassin's Purple Finch.***Carpodacus cassini* BAIRD. 1854.

Western States, from the eastern base of the Rocky Mountains to the Pacific Coast, and north to British Columbia. (*Ridgway*.) A few examples, probably of this species, were found breeding in the interior of British Columbia. (*Rhoads*.) Both sides of Coast Range, B.C. (*Fannin*.) Summer resident at Soda Creek, and probably also at Quesnel, B.C., 1901. (*Brooks*.) Taken at Spence's Bridge and Kamloops in June 1889. One specimen seen at Trail, near the International Boundary, B.C., in May, 1902. Quite common at Penticton, B.C., in April, 1903, feeding in the tops of bull pine (*Pinus ponderosa*), on their seeds. (*Spreadborough*.)

MUSEUM SPECIMENS.

Fourteen taken at Penticton, B.C., by Spreadborough, 1903.

CLXXXVII. **PASSER** BRISSON.**House Sparrow.***Passer domesticus* (LINNÆUS) KOCH. 1816.

This species has become naturalized in all Canadian cities, towns and small villages and in many farm-yards, where it lives in winter in affluence on the oats found in the droppings of horses. It is quite abundant in the autumn, but whether it finds a scarcity of food or abundance it is always in evidence in spring, and where it once gets a foothold it retains it and spreads further. It is abundant everywhere in the eastern provinces, in the settled parts of Quebec and Ontario, and, although spoken against everywhere, it destroys an enormous quantity of noxious weeds in waste grounds and vacant places in cities and their suburbs, by eating their seeds, in September, October and November, until the snow comes, when it takes to the streets. In 1894, a few pairs were seen near the railway station at Winnipeg, Man., since then they have spread rapidly westward. (*Macoun*.) This bird is gradually extending its range westward and northward. I found it nesting at Yorkton, northern Assa., in June, 1901, and Mr. Hugh Richardson, during the summer of 1901, sent me two sets (of what he called rare eggs) of a bird that had never been seen before in the Qu'Appelle valley, Assa., a bird unknown

to him, and they turned out to be only eggs of the English sparrow. I have no record of this bird from Alberta, but it is only a matter of time when it will extend its range right to the Rocky Mountain foothills. (*W. Raine.*)

CLXXXVIII. **LOXIA** LINNAEUS. 1758.

521. **American Crossbill.**

Loxia curvirostra minor (BREHM) RIDGW. 1885.

One specimen taken in Hudson Strait. It flew on board ship and was presented by Dr. Matthews. (*Dr. R. Bell.*) Common throughout the year on Newfoundland. (*Reeks.*) Common; arrives after the breeding season in Nova Scotia. (*Downs.*) Usually very abundant in summer when large roving flocks are to be met with everywhere in Kings Co., N.S.; a nest containing three young was taken early in August, 1896. (*H. Tufts.*) Three seen on Sable Island, N.S., July 2nd, 1902. (*James Bouteillier.*) I did not see this species in Cumberland Co., N.S., until March when it became common. At that time the males were in full song, and the birds were paired, male and female always being seen together. I judged both this and the next species would breed in April. (*Morrell.*) Common in woods at Baddeck and Margaree, Cape Breton Island, July, 1898; in spruce trees at Brackley Point, Prince Edward Island, Aug. 12, 1888. (*Macoun.*) Abundant in flocks, mixed with the following species, feeding chiefly on larch trees on Prince Edward Island. (*Dwight.*) A rather common resident in New Brunswick. (*Chamberlain.*) Not uncommon in the Restigouche valley, N.B. (*Brittain & Cox.*) Rare on the Magdalen Islands; a male seen on Grindstone Island. (*Bishop.*) Taken at Charlesbourg; common summer resident in eastern Quebec. (*Dionne.*) A transient visitant but common; they are very erratic in their movements and may appear at Montreal at any time during the year, but I have never heard of them breeding in this district; I saw a small flock of this species May 14th, 1883, at Cote St. Antoine, feeding on the cones of a larch tree. (*Wintle.*) A common summer visitor at Scotch Lake, York Co., N.B. (*W. H. Moore.*) A common winter resident at Ottawa, Ont. The summer records are as follows: May 10, 1882; August 4, 1887; June 19, 1889; and July 3, 1890. (*Ottawa Naturalist, Vol. V.*) In the winter of 1897 this bird was very common in Ontario; and in 1898 I saw a pair

at Lansdowne in the month of April. They frequented some hemlock trees in the village, but I could never make out that they were breeding. Since that year I have scarcely seen one. (*Rev. C. J. Young.*) Resident in the districts of Parry Sound and Muskoka. They gather in immense flocks and come into the settlement or about the lumber shanties. (*J. H. Fleming.*) There were enormous numbers of this bird in the vicinity of Whitney near Algonquin Park, Ont., in November and December, 1898; and in the following April there was an extraordinary migration to the neighbourhood of Toronto, many remaining till the third week in May. It is possible that the Whitney hordes may have wandered south which would account for a visit in such numbers to this locality on the return trip. (*J. Hughes-Samuel.*) Saw a small flock both old and young at C ache Lake, Algonquin Park, July 2, 1900. (*Spreadborough.*) A winter visitor at Guelph, Ont. (*A. B. Klugh.*) Transient visitant at Penetanguishene, Ont. Have noticed some immense flocks at rare intervals. (*A. F. Young.*) A small flock seen at our camp on Echiamamish River, Keewatin, June, 25, 1900. (*Edward A. Prebles.*)

A winter visitant in Manitoba; possibly also breeding. In Manitoba I failed to detect its presence excepting during winter and spring. It is common wherever there is plenty of spruce and tamarac, for the seeds of those are its favorite food. (*Thompson-Seton.*) One pair on Methye Portage; very common on Methye River and not rare to Isle   la Crosse, Sask. (*J. M. Macoun.*) Several birds resembling the published description of this species were seen at Fort Anderson but none taken. (*Macfarlane.*) Three individuals were observed at Indian Head, Assa. on June 27th, 1892, three days later a large flock was seen; this species was found in flocks in the Cypress Hills, Assa., from the middle of June to the end of the month, both in 1894 and 1895. It is extremely probable that this species nests in the Cypress Hills, as they seemed perfectly at home there feeding on the spruce trees; observed a pair on August 7th, 1897, in Crow's Nest Pass, Rocky Mountains; seen in large flocks at Banff, Rocky Mountains in June, 1891; very likely breed there. Taken on the mountains at Deer Park, Arrow Lake, B.C., June 6th, 1890; not uncommon on the mountains on both sides of Pass Creek near Robson, B.C., June 24th, 1890; taken on the mountains at Spence's Bridge, B.C., May, 28th, 1889, and in flocks at Agassiz; common

at Chilliwack, B.C. in the spring of 1901; abundant at Penticton, feeding on seeds of bull pine, April, 1903; a common summer resident on Vancouver Island; flocks seen almost every day near Victoria in the spring of 1893; also at Salt Spring Island and Comox, the same year. (*Spreadborough.*) An abundant summer resident on both sides of the Coast Range. (*Lord.*) From July 16th to September, pairs were seen about Ducks, B.C., flying from tree to tree looking for food. Later, a few flocks were seen on the coast flying south. (*Strector.*) An abundant resident throughout the province. (*Fannin.*) Tolerably common; an irregular visitant to the lower Fraser valley; resident in the mountains; common in Cariboo district in the winter of 1899 and summer of 1900; abundant at Okanagan, B.C., in the winter of 1897-98. (*Brooks.*) Co-extensive with coniferous forests at all elevations, east and west of Coast Range, B.C. (*Rhoads.*) Along the southeastern coast of the territory in the vicinity of Sitka and the adjoining regions, this is a rather common bird but in only one instance has it been taken north of the Alaskan mountains. (*Nelson.*) Flocks of these birds frequented the tops of the tallest firs at Sitka, Alaska, where on account of their quietness they may easily escape notice. (*Grinnell.*) Osgood took a red crossbill and saw another at Unalaska, October 5th, 1899. We did not see any on the Yukon. (*Bishop.*)

BREEDING NOTES.—I have a set of 4 eggs collected by L. Dicks at Cartwright, Labrador, April 20th, 1895. The nest was built in the top of a cedar, [?] and was composed externally of twigs and roots and the interior lined with animal fur and feathers. The eggs are greenish white, spotted chiefly at the larger end with dark brown and grey and average in size .75 x .58. (*W. Raine.*)

MUSEUM SPECIMENS.

Fourteen; one taken at London, Ont., in April, 1885, by Mr. W. E. Saunders; three taken at Banff, Rocky Mountains, July, 1891, one taken at Deer Park, Columbia River, B.C., June, 1890, one at Agassiz, B.C., May, 1889, two at Chilliwack, B.C. in June, 1901, and six at Penticton, B.C., in April, 1903, all by Mr. W. Spreadborough.

522. **White-winged Crossbill.**

Loxia leucoptera GMEL. 1788.

A rare straggler in Greenland; a few taken in South Greenland. (*Arct. Man.*) Abundant at Fort Chimo, Labrador, some

winters; rare during other winters; none observed during summer; breeds in central portion of Labrador and resident there. (*Packard.*) Common throughout the year in Newfoundland. (*Reeks.*) Irregularly abundant after the breeding season in Nova Scotia. (*Downs.*) Occasionally seen in flocks at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898; a very large flock in spruce woods at Brackley Point, Prince Edward Island, June, 1888. (*Macoun.*) Rather common on Prince Edward Island. (*Dwight.*) Very erratic. Remained at Sydney, Cape Breton Island, all winter, 1898-99, and bred freely the following February and March. Ivan Bayley found many nests. The birds left very suddenly in April, leaving several broods of young. (*C. R. Harte.*) Seen in King's Co., N.S., only in winter and early spring, and are of irregular occurrence. They frequent the tops of spruce and fir trees where they gather the seeds from the cones. (*H. Tufts.*)

Common winter resident at St. John, N.B.; a few breed every spring. (*Chamberlain.*) On July 24th I observed a flock of eight or ten individuals at Ellis Bay, Anticosti. (*Brewster.*) Seen during the winter at Lake Mistassini, Quebec. (*J. M. Macoun.*) Common on Grindstone and Entry islands, and probably on other islands of the Magdalen Islands. (*Bishop.*) Common winter visitor at Scotch Lake, York Co., N.B., in 1899, previously rare. (*W. H. Moore.*) A common summer resident in eastern Quebec. (*Dionne.*) A common but transient visitor at Montreal. I saw a flock of this species feeding on the cones of cedar trees at Hochelaga, Que., on December 8th, 1888. (*Wintle.*)

A large flock of this species was seen near Beechwood cemetery, Ottawa, Ont., in June, 1882. (*Ottawa Naturalist*, Vol. V.) I saw this bird commonly in the Magdalen Islands in the month of June, 1897, and have no doubt but that it breeds there in the spruce woods though I could not with certainty locate a nest. In that same year, in the month of April, I saw three of these birds on an island in the St. Lawrence, near Lansdowne, Ont., feeding on some hemlock trees and frequently alighting on the ground in search of hemlock seeds. (*Rev. C. J. Young.*) Not as abundant as the preceding, but found in both districts. (*J. H. Fleming.*) A few seen almost every season, but never really abundant, at Toronto; I found them particularly abundant at Whitney, near Algonquin Park, Ont., in the fall of 1898 and fairly so at Kaladar, Addington

Co., December, 1884. (*J. Hughes-Samuel.*) An infrequent winter visitor at Guelph, Ont. (*A. B. Klugh.*) A male and female taken at Fort Churchill, Hudson Bay. (*Clarke.*)

A winter visitant ; possibly resident and breeding. On December 6th, 1882, at the spruce bush, 35° below zero, shot three individuals out of a small flock that was feeding on the cones of a tall spruce. These were all males. (*Thompson-Seton.*) Common on Methye River in flocks ; a few between that river and Isle à la Crosse, Sask. (*J. M. Macoun.*) Saw several on Macleod River, west of Edmonton, Alta., June 19, 1898. Quite common in the woods at Banff, Rocky Mountains, and evidently breeding in the summer of 1891 ; two seen in the Crow's Nest Pass in 1897. (*Spreadborough.*) This crossbill inhabits the dense spruce forests of the Northwest Territories, feeding principally on the seeds of the cones. It ranges through the whole breadth of the continent and probably up to Lat. 68°, where the woods terminate, though it was not observed by us north of Lat. 63°. (*Richardson.*) North to Fort Good Hope on the Mackenzie River. (*Ross.*) A pair of this species was obtained during our residence at Fort Anderson but no nests were seen. (*Macfarlane.*) Rocky Mountain district ; Beaver Pass, B.C. by Mr. Geo. Hyde. (*Fannin.*) Three specimens taken at Chilliwack, B.C. ; quite abundant in the Cariboo district in the winter of 1898-99 and common in the summer of 1900. (*Brooks.*) Common on Queen Charlotte Islands, B.C., but no specimens were taken ; common at Cook's Inlet, Alaska, but always in pairs. (*Osgood.*) Although the last species is thus far known only as an excessively rare visitant in the northern portion of Alaska, the present bird is found in the greatest abundance wherever trees occur to afford shelter. (*Nelson.*) This species is abundant in the interior of the Yukon district and other wooded parts. It only occasionally visits St. Michael and then never in large flocks. (*Turner.*) This species was a common resident throughout the year in certain parts of the Kowak valley, Kotzebue Sound. They were always to be found along the bases of the mountains, especially in the tracts of small spruces bearing great clusters of cones. (*Grinnell.*) Crossbills in flocks of from half a dozen to one hundred individuals were often seen from Lake Lebarge to Charlie Village, July 16th to August 11th, 1899, on the Yukon River, Yukon District. (*Bishop.*)

BREEDING NOTES.—On April 26th I found a regular paradise for crossbills. It was a stretch of the requisite dwarf spruce lying along the Jade Mountains near the head of Hunt River. Here I met with several flocks of white-winged crossbills which, from their unusually lively behavior, indicated the mating season to be at hand. Two or three pairs were apparently already mated, for they were detached from the main flock, each by itself. The males were singing very loudly a twitter somewhat resembling that of the American goldfinch, but coarser. The females were shy, flying covertly from tree to tree and darting through the foliage to avoid the officious advances of the males, who were following them. The latter flew in broad circles above the females, with slowly beating wings, singing continuously, and finally settling on quivering, outstretched wings in a tree top. I visited this locality again on the 28th May, and was fortunate enough to find three nests of the white-winged crossbill. On this date the large flocks had scattered out, and the birds were mostly seen singly or in pairs. Two or three companies of a dozen or so were noted, these probably being non-breeders or yearlings. The first nest was found by spotting a pair of birds and closely watching their movements. They were feeding when first noted, but in a few minutes I suddenly lost sight of the female, although the male remained in the vicinity, frequently uttering the metallic call-note previously described. After waiting some time, I proceeded to the tree where the female was last seen. On vigorously shaking the tree several times she flew out of a dense clump of branches and perched a few yards off, chirping solicitously. Both birds soon left the vicinity and did not return while I remained. The nest was situated close to the trunk, ten feet above the ground, in a mass of foliage so thick as to entirely hide it from view. It contained two eggs about one-third incubated. These are ovate and measure .86 x .61, .84 x .60. The ground colour is an extremely pale tint of blue. One egg has scattering ill-defined spots and blotches of pale chocolate. The other egg has numerous very pale lavender markings, and, mostly at the larger end, a number of spots and four large blotches of dark seal-brown. The second nest was found through locating a male bird by its call-note, and then tapping every tree in the vicinity with a stick. The female was thus flushed from her nest, which was 12 feet up near the top of a dwarf spruce. It was embedded in a mass of foliage against the stem of the tree, much as

in the case of the first nest. It contained two pipped eggs and one newly hatched young. The parents evinced more solicitude in this case, chirping and flying from tree to tree. The third nest was found similarly, though the female left the nest unobserved and I had to wait until she returned to be able to locate the nest. This was 15 feet from the ground, hidden in the dense spruce top, as before. There was but one fresh egg. This measures .77 x .58. It is almost white (before blown, pinkish) with scattering abruptly-defined spots and lines of bay and fawn colour, most numerous at the larger end. The three nests are just alike in every way. They consist externally of short dry spruce twigs; and internally of a black wool-like lichen, closely felted, and with a scanty admixture of feathers and bits of grasses. The nests are nearly black, and thus present an odd appearance as compared with those of the usual consistency of other birds. The nest measurements are: internal diameter 2.20, depth 1.20; external diameter 4.00, depth 2.50. (*Grinnell*.) I have a set of 4 eggs taken at Sandwich Bay, Labrador, April 9th, 1894, by L. Dicks. The nest is made of fine roots and twigs, lined with moss and animal fur, and the 4 eggs are pale bluish white, spotted at the larger ends with brown of various shades, black and lilac grey. The eggs of the two species of crossbill are seldom obtained, for like the Canada jay they have eggs while the snow is on the ground very early in the spring and at a time when it is difficult to get into the woods on account of the snow. (*W. Raine*.)

MUSEUM SPECIMENS.

Seven; three taken at Ottawa by Mr. F. A. Saunders and Prof. Macoun; two at Bracebridge, Ont., February, 1892, and two at Banff, Rocky Mountains, June, 1891, by Mr. W. Spreadborough.

CLXXXIX. **LEUCOSTICTE** SWAINSON. 1831.523. **Aleutian Leucosticte.**

Leucosticte griseonucha (BANDT) BONAP. 1850.

East and west of the Coast Range; tolerably common. (*Fannin*.) On the Aleutian Islands, from one extremity to the other, is found this large and beautiful finch, extending its habitat thence north to include the Prybilof Islands and the small island of St. Matthew still further to the north. East of the Aleutian chain

it reaches Kadiak Island. On all these islands, except one or two exceptions, it is a permanent resident. (*Nelson.*) This species is common on all the Aleutian Islands, including the Pribilof Islands, and has also been observed on Kadiak Island. (*Turner.*) We saw a number of this species on St. George Island, Behring Sea, October 3rd, 1899. At Unalaska, I saw a flock of about twenty and another of two young birds on the 5th. (*Bishop.*) I have a nest and four eggs that were collected at St. George Island, Behring Sea, June 8th, 1897, by Mr. J. M. Macoun. The nest is composed of fine roots and grass lined with fine grass. The eggs are usually white, but are sometimes finely spotted with pale rusty brown, and average .98x.70. (*W. Rainc.*)

MUSEUM SPECIMENS.

One taken on St. Paul Island, Behring Sea, June, 1891, and one set of five eggs from the same place, taken on June 29th, 1891, by Mr. James M. Macoun.

523-1. **Kadiak Leucosticta.**

Leucosticta kadiaka MCGREGOR. 1901.

Karluk, Kadiak Island, Alaska. Known only from Kadiak Island. (*The Condor*, Vol. III., 8.)

524. **Gray-crowned Leucosticta.**

Leucosticta tephrocotis SWAINS. 1831.

One specimen, taken near Birtle, Manitoba, in January, 1891, by Mr. George Copeland; also two specimens in museum at Winnipeg, taken by Mr. Hine. (*Thompson-Seton.*) Of this new and striking species only one specimen was obtained, which was killed on the Saskatchewan in May, 1827. (*Richardson.*) Rocky Mountain district; in winter occasionally west of the Coast Range. (*Fannin.*) Summits of the Rocky Mountains; very rare. Breeds at an altitude of 7,000 feet. (*Lord.*) This species was first seen on the summit of Avalanche Mountain, Selkirk Mountains, B.C., August 4th, 1885; there was a pair of old birds and four young ones, they were quite tame; later in the season they were taken at Hector, Rocky Mountains. (*Macoun.*) Found on the summits of all the mountains around Banff in the summer of 1891 and on the high mountains to the southeast in 1897. They certainly breed on all mountains above 7,500 feet; observed,

2½

above the timber line on all the mountains ascended around the sources of the Athabasca River in 1898. (*Spreadborough.*) I have taken the typical species as far west as Chilliwack, B.C.; a large flock seen once or twice on mountains to the west of Lake Okanagan; the typical species breeds on the high mountains near Barkerville, Cariboo district, B.C. (*Brooks.*) A flock of three birds was seen near Field, B.C., Rocky Mountains. (*Rhoads.*)

BREEDING NOTES.—As the nest and eggs of this bird have never been recorded, I am pleased to describe them for the first time. I have a nest and four eggs with the parent bird that were taken at Banff, Rocky Mountains, Alta., on June 9th, 1892, by Mr. Wm. Fear. The nest is made of roots and fine bark lined with fine grass and was built in a crevice of a rock, and the eggs are pure white, averaging 90x65. (*W. Raine.*)

MUSEUM SPECIMENS.

Seven; two taken August 6th, 1891, on Mount Aylmer, Devil's Lake, Banff, Rocky Mountains and five on Moose Mountain, foothills of Rocky Mountains, Alta., in July, 1887, by Mr. Spreadborough.

524a. **Hepburn's Leucosticte.**

Leucosticte tephrocotis littoralis (BAIRD) COUES. 1872.

The types of this form came from Sitka, and since then specimens have been obtained from Sitka, Kadiak, British Columbia, Wyoming and Rocky Mountain region as far south as Colorado. (*Nelson.*) Abundant summer resident on both sides of the Coast Range. (*Lord.*) We found this bird only at the summit of the White Pass, head of Lynn Canal. (*Bishop.*) From the coast to the Rocky Mountains; at Ashcroft, Clinton and Burrard Inlet. Taken at Port Simpson by Mr. W. B. Anderson. (*Fannin.*) Rare winter visitant at Chilliwack; breeds above the timber line in the Coast Range; some of the specimens seen at Lake Okanagan may have been this species; typical specimens taken in the winter in the Cariboo district, B.C. (*Brooks.*) Found tolerably common on the summit of Mount Arrowsmith, Vancouver Island, July 19th, 1887. (*Macoun.*) One specimen seen on top of a mountain at the foot of Chilliwack Lake, B.C., July 20th, 1901. (*Spreadborough.*)

MUSEUM SPECIMEN.

One; taken on Mount Arrowsmith, Vancouver Island, July 17th, 1887, by Prof. Macoun.

CXC. **ACANTHIS** BECHSTEIN. 1803.527. **Greenland Redpoll.**

Acanthis hornemannii (HOLB.) STEJN. 1884.

Said to be constantly resident in Greenland and a regular breeder but not further south than Lat. 70° north. (*Arct. Man.*) Very abundant in winter in northern Labrador. Not occurring in summer from May 15th to September 1st of each year. (*Packard.*) Fort Churchill, Hudson Bay. (*Clarke.*)

About the year 1863, a friend who used to join me in some of my local collecting trips, was in the town of Galt, Ont., and seeing a small flock of large light-colored redpolls, secured two of the lot and sent them to me in the flesh. (*McIlwraith.*)

527a. **Hoary Redpoll.**

Acanthis hornemannii exilipes (COUES) STEJN. 1884.

Abundant and resident in Labrador; breeds plentifully at Fort Chimo, where nests and eggs were obtained by Nelson. (*Packard.*)

Specimens of this bird, taken by Mr. W. L. Scott in the spring of 1883, were identified by Dr. Coues. It is also included in the list of arrivals for 1887 on March 19th. (*Ottawa Naturalist*, Vol. V.) During the winter of 1896 a flock of redpolls was observed at East Toronto. I secured nine specimens from what I was given to understand was the same flock. Mr. Ridgeway identified them all as *Acanthis exilipes*. The specimens were taken in February and March, 1897. I have examined a specimen taken by Mr. Kay at Port Sydney, Muskoka District. (*J. H. Fleming.*) One specimen killed out of a large flock of redpolls at Hamilton Beach, Ont., by Mr. K. C. McIlwraith on 6th April, 1885. (*McIlwraith.*) Three specimens from York Factory and one from Fort Churchill, Hudson Bay, collected in July, 1900, are referable to this form. (*E. A. Prebles.*)

A migrant and winter visitant in Manitoba. Specimens were taken at Carberry in the early winter from a flock of *A. linaria*. (*Thompson-Seton.*) Quite numerous in flocks of the common red-

poll at Indian Head, Assa., which were common from April 1st to 20th, 1892. (*Spreadborough.*) Carlton House, on the South Saskatchewan, November to March. (*Blakiston* vide *Ridgway.*) North to Lapierre's House, on the Mackenzie River; common. (*Ross.*) I carefully examined all flocks of redpolls in the winter of 1897-98 in the Cariboo district, B.C., and only secured one specimen that showed any approach to *exilipes*. (*Brooks.*) This is the prevailing species of the genus throughout northern Alaska, where it occurs in great numbers. It is indistinguishable from the common redpoll except for the differences in coloration and is constantly associated with them. (*Nelson.*) This species is a common bird throughout the entire territory of Alaska. (*Turner.*) This species is not common at Point Barrow, and only of irregular occurrence. We only obtained one nest and saw very few birds. (*Murdoch.*) The hoary redpoll was a common resident throughout the region around Kotzebue Sound. Out of 112 skins taken 104 were of this species. (*Grinnell.*) Sixteen specimens taken at Point Barrow, Alaska, exhibit very little variation. (*Witmer Stone.*) I secured two young from a flock about fifteen miles above Circle City, Alaska, August 13th, 1899; and Osgood, one on the 19th, from a flock at Circle City; rather common in small flocks at St. Michael in September. (*Bishop.*)

BREEDING NOTES.—The hoary redpoll was a common resident throughout the region under consideration. At Cape Blossom during July, 1898, they were mainly in pairs, though small companies of from 4 to 8 were occasionally seen. They frequented the dwarf willow and alder patches, especially among the hills back from the coast. Two nests were found on the 20th of July. They were each built in the crotches of low bushes about two feet from the ground, and were only one hundred feet apart on a slope sparsely covered with small bushes. The nests were composed of dried mildewed grasses externally, with a thick lining of cottony down from the seed-cases of a kind of grass, and a few feathers. One of the nests contained four eggs and the other five. Both sets were far advanced in incubation and the latter set contained one infertile egg. The female birds were sitting closely when the nests were discovered, and in both cases I nearly touched them before they slipped from the nests. They darted quickly out of sight, making no solicitous demonstrations whatever. Another nest was found near Cape Blossom on July 1st,

1899. This was in every way similar to the other two, and contained four slightly incubated eggs. As the month of May advanced the flocks of redpolls began to break up though the pairs were prone to stay within call of each other, a sociable trait. The first nest was found on June 4th and contained five badly incubated eggs. This indicates that nesting begins soon after the middle of May. Another nest, containing five slightly incubated eggs, was taken on the 5th; the nest was saddled in the forks of a leafless willow above water at the margin of an ice-covered lake. This nest may be described as typical of the ones found in the Kowak valley. It is a very compact and well proportioned structure of fine dry rootlets, grasses and slender plant stems lined with soft white willow down and a few ptarmigan feathers. The diameter of the nest cavity is 1.70, and the depth 1.25. External diameter, 4.00; depth, 2.10. A nest of five fresh eggs, taken on June 6th, was nine feet above the ground in the top of a small spruce at the edge of a dense strip of timber. The eggs of the hoary redpoll are pale Nile blue, with spots, lines, dots and scrawls of vinaceous, lavender, chocolate and so dark a brown as to appear black in some cases. These markings tend to form wreaths about the larger ends of many eggs. The eggs vary in shape from ovate to short-ovate. (*Grinnell*.) I have six nests with sets of eggs of this species. They were collected at Peel River, Mackenzie Delta, by the Rev. I. O. Stringer, who has just returned from that far away northern region after spending eight years amongst the Eskimos. The nests are beautiful structures of fine twigs and roots felted together with vegetable down and snugly lined with down and feathers. One nest, taken July 19th, 1898, was built in a willow only two feet from the ground, and contained four eggs. Another nest was built in a small shrub less than one foot from the ground, and contained five eggs, averaging in size .68 x .52. The Eskimo name for this bird is "Peôgwak." (*W. Raine*.)

MUSEUM SPECIMENS.

Two taken at Indian Head, Assa., April 17th, 1892, by Mr. W. Spreadborough. A large series of eggs taken at Nachvak, Labrador, in 1895. One set of five eggs and nest taken at Nachvak by G. Ford in 1897; also two eggs taken at Fort Chimo, Ungava, June 13th, 1896.

528. **Redpoll.**

Acanthis linaria (LINN.) BONAP. & SCHLEG. 1850.

Abundant and resident in Labrador. Breeds plentifully at Fort Chimo, where nests and eggs were obtained by Nelson. (*Packard.*) One seen on James Bay, June 15th; a few observed at Great Whale River. Common from Richmond Gulf, across the interior to Ungava Bay; seen in large flocks at Fort Chimo in September, 1896. (*Spreadborough.*) Very common everywhere along the northeastern coast of Labrador; apparently all the redpolls belonged to this race. (*Bigelow.*) Very common resident in Newfoundland, does not migrate. (*Reeks.*) Rather common in winter in Nova Scotia. (*Downs.*) Said to be common in winter at Sydney, Cape Breton Island; saw a flock December 10th, 1901. (*C. R. Harte.*) Common some winters in Kings Co., N.S., in others they are absent. (*H. Tufts.*) Two specimens seen on Sable Island, N.S., May 3rd, 1902. (*James Bouteillier.*) In the spruce trees by the beach, Brackley Point, Prince Edward Island, June 27th 1888. (*Macoun.*) A winter visitant in New Brunswick; some winters quite common. (*Chamberlain.*) A winter visitor at Scotch Lake, York Co., N.B.; sometimes common, sometimes rare. (*W.H. Moore.*) Seen during the winter at Lake Mistassini, northern Quebec. (*J.M. Macoun.*) Taken at Beauport; winter resident in eastern Quebec. (*Dionne.*) An abundant winter visitant at Montreal; observed there in flocks from October 25th to April 29th. The latter date is late in the spring of the year to find the species at Montreal, although in 1883, I saw large numbers in the month of May feeding on the ground in the woods in Hochelaga. (*Wintle.*) An abundant winter visitor at Ottawa. Summer records are June 6, 1882; June 3, 1888; and May 22, 1890. (*Ottawa Naturalist*, Vol. V.) I saw a small flock of what I took for hoary redpolls in the month of March at Lansdowne, Ont., feeding on seeds of the hemlock; and have frequently seen flocks of the other varieties in the winter. A few breed on the Magdalen Islands. (*Rev. C. J. Young.*) An irregular winter visitor at Guelph, Ont. (*A. B. Klugh.*) An abundant winter visitor in the Parry Sound and Muskoka districts, often remaining to the beginning of May. (*J. H. Fleming.*) In the early spring of 1881 these birds appeared near London, Ont. in considerable numbers but have not been seen since that time. (*W.E. Saunders.*) Abundant winter visitant at Penetanguishene early in October.

(*A. F. Young.*) Eight specimens, including one in juvenal plumage, were collected at York Factory, Hudson Bay, July 12th to 16th, 1900, where the birds were abundant, and a very bright male was taken at Fort Churchill, July 23rd. (*E. A. Prebles.*)

An abundant fall and winter visitor in Manitoba; feeding on the seeds of various plants. (*Thompson-Seton.*) A few specimens were seen on the Clearwater River below Methye Portage; common on the portage. (*J. M. Macoun.*) A common and regular winter visitor near Prince Albert, Sask., arriving in small flocks nearly at the same time as the pine grosbeak and remaining sometimes late in the spring. (*Coube ux.*) This neat and hardy bird is one of the permanent residents in the Northwest Territories where it may be seen in the coldest weather on the banks of lakes and rivers, hopping among reeds and carices or clinging to their stalks. (*Richardson.*) North to Fort Good Hope on the Mackenzie River; abundant. (*Ross.*) This species was just as abundant as the Greenland redpoll in the wooded country, and we procured as many nests as of it. (*Macfarlane.*) This species was seen in large flocks at Indian Head, Assa., during the first three weeks of April, 1892, after which they all disappeared. April 7th, 1894, saw a flock of sixteen at Medicine Hat, Assa. Two specimens were seen at Edmonton, Alta., on April 19th, 1897; common in flocks around Revelstoke, B.C., up to the last of April, 1890; seen at the lower end of Lower Arrow Lake, Columbia River, June 18th, 1890. (*Spreadborough.*) An abundant summer resident in British Columbia. (*Lord.*) Common throughout the province. (*Fannin.*) Irregular winter visitant at Chilliwack; common winter resident at Lake Okanagan, B.C., also common in the Cariboo district in winter. (*Brooks.*) This species is found in Alaska in smaller numbers than the preceding. On the southeastern coast of the territory, including Kadiak and the Sitkan region, the present bird is found to the exclusion of the other. (*Nelson.*) This species is a common resident of all parts of Alaska, excepting the Aleutian Islands. In the latter district it is a summer visitor only, though breeding there I have never observed it west of Unalaska Island. (*Turner.*) Large flocks were seen frequently both at Hope and Tyonek, Cook's Inlet, Alaska, in August, 1900. (*Osgood.*) Of the 112 skins taken at Kotzebue Sound only seven were referable to this species. Although few were taken they evidently breed in the country as specimens were

taken from March to October. (*Grinnell.*) We saw several, usually in pairs and very shy, at Bennett, B.C., June 17th, 1899, and near Charlie Village a fine male. (*Bishop.*)

BREEDING NOTES.—During the last week of May and early in June, 1899, Mr. A. P. Low found this bird breeding abundantly at the mouth of the Great Whale River, Hudson Bay, and I secured close upon 150 eggs of this species that were then collected. The nests were built low down in stunted willows, not more than two or three feet from the ground and contained five or six eggs each. I have also several sets that were taken at Cartwright, Labrador, by the late Lambert Dicks during June, 1895. On June 20th, 1890, Mr. Stringer found several nests at the delta of the Mackenzie River, 100 miles from its mouth. Here the nests were built in willows two or three feet from the ground and contained four and five eggs each. I have three nests collected by Mr. Stringer, and they are beautifully and compactly built, externally of fine roots and grass, inside felted with down and feathers. (*W. Raine.*)

MUSEUM SPECIMENS.

Eleven; one taken at Ottawa, Ont., in April, 1890, by Mr. F. A. Saunders; four at Indian Head, Assa, in April, 1892, two at Medicine Hat, Assa, in April, 1894, three at Revelstoke, B.C., in April, 1890, one at Edmonton, Alta., April 19th, 1898, all by Mr. W. Spreadborough. One set of 4 eggs taken at Great Whale River, Hudson Bay, May, 1899, by Mr. A. P. Low.

528a. **Holbell's Redpoll.**

Acanthis linaria holbellii (BREHM) DUBOIS. 1871.

This species was caught in a thick fog in Grinnell Bay, Sept. 3rd, 1877. (*Kunlien.*) Rather common in winter at Fort Chimo, Labrador; none to be seen from May 15th to September 1st of each year. (*Packard.*) This species is not uncommon in eastern Quebec mixed up in the flocks of *A. linaria*. (*Dionne.*) One specimen taken at Moose Factory, James Bay, is in the National Museum at Washington. (*E. A. Prebles.*)

A specimen taken by Mr. Kay at Port Sydney, Muskoka district, on April 14th, 1890, was identified at Washington as this subspecies; various specimens have been taken at Toronto and identified as this subspecies. (*J. H. Fleming.*) Three specimens,

one male, taken March 3rd, and a male and female taken March 15th, 1888, at Lorne Park, near Toronto, Ont., were determined to be this form by Mr. Ridgway. (*Thompson-Seton in Trans. Can. Inst.*, III., 1892, p. 64.) One specimen of this race was taken on the Kowak River, April 10th, 1899. (*Grinnell*.) Breeding on Herschell Island and other Arctic islands. (*Ridgway*.)

528b **Greater Redpoll.**

Acanthis linaria rostrata (COUES) STEJN. 1884.

Said to breed generally throughout Greenland, suitable localities being of course understood, but is migratory there. (*Arct. Man.*) Occasionally met with in New Brunswick. (*Chamberlain*.) Among a number of redpolls from Parry Sound district examined by Mr. Ridgway were specimens intermediate between this species and *A. linaria*. I have, however, seen typical specimens from Muskoka; occurs in Toronto regularly in flocks of *A. linaria*. (*J. H. Fleming*.) Among a number of redpolls sent to Washington for determination by Mr. Ridgway is a young male taken at Toronto by Mr. Cross on February 10th, 1890, and an adult female taken at Lorne Park, November 9th, 1899, which were pronounced the greater redpoll. (*Thompson-Seton in Trans. Can. Inst.*, III., 1892, p. 64.)

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

Goldfinch.

Carduelis elegans STEPHENS. 1826.

A male European goldfinch was collected May 21st, 1887, by Daniel S. Cox, about a mile north of Toronto city limits—one out of four—while resting on the top of a beech tree. The remaining three flew off in a northerly direction. The birds were evidently in a natural condition and migrants from the south, doubtless from the New York colony. (*William Brodie in The Auk*, Vol. V., p. 211.)

CXCI. **ASTRAGALINUS** CABANIS. 1851.529. **American Goldfinch.**

Astragalinus tristis (LINN.) CAB. 1851.

Kumlien caught an adult male on shipboard off Cape Mugford, Labrador (?), August 22nd, 1877; occurs in southern portions of Labrador. Nelson writes that a bird called a "goldfinch" was described accurately and asserted to occur occasionally at Fort Chimo, but he did not succeed in finding it. (*Packard.*) A common summer migrant in Newfoundland. (*Reeks.*) Heard but not seen along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*) Common; a few remain all winter in Nova Scotia. (*Downs.*) A few seen at Baddeck and Margaree, Cape Breton Island, July, 1898; one pair seen on Winsloe Road, Prince Edward Island, July 21st, 1888. (*Macoun.*) A few seen almost daily when on Prince Edward Island. (*Dwight.*) Mr. Bayley says it is common at Sydney, Cape Breton Island, breeding late in June, first seen May 24th, 1891. (*C. R. Harte.*) Fairly common throughout the year at Wolfville, Kings Co., N.S. (*H. Tufts.*) An abundant summer resident in New Brunswick. (*Chamberlain.*) Irregular in arriving in spring at Scotch Lake, York Co., N.B.; coming from February 16th to May 28th; departing from October to December. Its nests are placed in deciduous bushes and trees, the eggs number from 3-5. I have seen a nest so compactly built that during a heavy shower in July it nearly filled with water and the birds deserted it. (*W. H. Moore.*) Restigouche valley, N.B.; always near settlements. (*Brittain & Cox.*) Common at Gaspé, Quebec, but nowhere else on the Gulf of St. Lawrence. (*Brewster.*) Taken at Beauport; a summer resident in eastern Quebec. (*Dionne.*) An abundant summer resident at Montreal; breeds at Mount Royal Park, nests found containing fresh eggs from July, August 8th; observed at Montreal from April 7th to Nov. 18th; have been seen as late as December 11th, 1890. (*Wi*

Abundant summer resident at Ottawa, Ont. It occasionally winters here in large flocks as it did in 1888-9. (*Ottawa Naturalist*, Vol. V.) A very common summer resident in Ontario. I have seen flocks of this bird in January at Calabogie Lake, Renfrew Co. and occasionally at Lansdowne on the St. Lawrence. It is a very late breeder, seldom nesting until the middle of June; I have seen fresh eggs in August. (*Rev. C. J. Young.*) An abundant

summer resident in both the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Common around the buildings at C ache Lake, Algonquin Park, Ont., June, 1900. (*Spreadborough.*) Common everywhere, and is to be found every winter in varying numbers in the cedar swamps about London, Ont. In the spring, erratic flocks are seen now here, now there; but they begin to seek their summer quarters, to sing and to be regularly observed about April 28th, on an average of fourteen years. (*W. E. Saunders.*) A common resident; most abundant in summer around Guelph, Ont. (*A. B. Klugh.*) An abundant summer resident at Penetanguishene, Ont.; breeds. (*A. F. Youug.*)

This familiar bird was noted only at Pembina on the borders of Manitoba. (*Coues.*) A common summer resident in Manitoba. I have not noted this bird in Manitoba before the end of May. In this country it finds neither thistles nor orchards, so it feeds largely on the seed of *Rudbeckia hirta* and *Gaillardia aristata*, and nests in the low poplars and oaks on the edges of the heavier timber. (*Thompson-Seton.*) Quite common in the vicinity of Brandon, Man., 1896. (*Macoun.*) First seen at Indian Head, Assa., June 1st, 1892, but were quite common by the 10th; they breed there; one individual was seen at Crane Lake, Assa., June 11th, 1894, and on the 25th of the same month two pairs were seen in the east end of the Cypress Hills, Assa.; eight of these birds were seen at 12-Mile Lake and afterwards at Wood Mountain, Assa., as late as June 17th, 1895; seen next, June 27th, in Farewell Creek valley, in the Cypress Hills, and on the 30th along Sucker Creek, Assa.; common in the valley of Milk River, especially at Castellated Rocks, also on St. Mary's River and Lee's Creek, Alta., and near Chief Mountain at the base of the Rocky Mountains. (*Spreadborough.*) This very gay goldfinch is one of the tardiest summer visitors in the Northwest Territories, and it retires southwards in September after a stay of a little over three months. (*Richardson.*) A tolerably common summer resident near Prince Albert, Sask., breeding throughout the region. (*Coubeaux.*)

BREEDING NOTES.—A common breeding summer resident at Ottawa, Ont. Its nest is often built in a white cedar, and is composed of downy and other soft vegetable matter; a very neat and compact affair, lined with horse hair, fine grass and down.

Eggs four, of a faint bluish-white colour. (*G. R. White.*) This species nests at Ottawa and near Lake Nominigue, 100 miles north of it. The nest is composed of vegetable fibres, fine grass and strips of bark, lined mostly with thistle-down and sometimes with hairs. Nests in July and August and lays five or six eggs. (*Garneau.*) Not very common at Toronto, Ont., and is a late breeder, seldom having eggs before July 12th. (*W. Raine.*)

MUSEUM SPECIMENS.

Ten; one taken at Ottawa, December, 1888, by Mr. G. R. White; three at Ottawa in October, 1890, by Mr. F. A. Saunders; one at Toronto by Mr. S. Herring; two at Bracebridge, Ont., in December, 1891, one at Indian Head, Assa., June, 1892, and two at 12-Mile Lake, Assa., June, 1895, all by Mr. W. Spreadborough.

Two sets of eggs. One of four eggs taken at Wakefield, Que., on August 15th, 1897, by Mr. F. K. Whiteaves; one of five eggs taken at Toronto, Ont., on July 30th, 1889, by Mr. W. Raine.

529a. **Pale Goldfinch.**

Astragalinus tristis pallidus MEARN'S. 1890.

Rocky Mountain plateau district of the United States north to eastern British Columbia, western Manitoba, &c. (*Ridgway.*)

529b. **Willow Goldfinch.**

Astragalinus tristis salicamans (GRINNELL) RIDGW. 1899.

Of irregular occurrence during early winter at Okanagan, B.C. (*Brooks.*) Chiefly confined to the mainland on both slopes of the Coast Range and in the Rocky Mountain district. (*Fannin.*) Abundant on both slopes of the Coast Range. (*Lord.*) Only once specimen taken at Cascade, on the International Boundary, B.C., in the summer of 1902. (*Spreadborough.*)

MUSEUM SPECIMENS.

One taken at Cascade, B.C., June, 1902, by Mr. Spreadborough.

CXCII. **SPINUS** KOCH. 1816.533. **Pine Siskin.**

Spinus pinus (WILS.) STEJN. 1884.

Recorded as common in Labrador by Audubon. (*Packard.*) Rather rare along the northeastern coast of Labrador in company

with redpolls. (*Witmore Stone*.) A summer migrant in Newfoundland. (*Reeks*.) Large flocks seen commonly along the Humber River, Newfoundland, 1899. (*Louis H. Porter*.) Rather common in Nova Scotia; a summer resident. (*Downs*.) Three seen on Sable Island, N.S., June 3rd, one on July 24th and a number on October 4th, 1902. (*James Bouteillier*.) A few observed at Baddeck, Cape Breton Island. (*F. H. Allen*.) Small flocks were seen at Shulce, Cumberland Co., N.S. and at Hebert River in December; none were seen at Parrsboro. When I returned to Hebert River in March I found it by far the most abundant bird. (*Morrell*.) Large flocks seen at North Sydney, Cape Breton Island, in November, 1901, and on June 8th, 1902; probably breeds. (*C. R. Harte*.) Breeds near Wolfville, Kings Co., N. S., regularly in May and June and usually is common till September; at other times of the year it is very irregular. (*H. Tufts*.) It surprised me to meet this species but once on Prince Edward Island,—a male at Souris. (*Dwight*.) A common species in New Brunswick; breeds very early. (*Chamberlain*.) A very irregular winter visitor; I think that some years it breeds at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Quite common in the Restigouche valley, N.B., in summer. (*Brittain & Cox*.) One of the most abundant birds on the Magdalen Islands until July, 1887. (*Bishop*.) Abundant at Gaspé and apparently nesting in the spruces and balsams in the village street, July 14th; later, July 24th, it was found in flocks at Ellis Bay, Anticosti. (*Brewster*.) Taken at Beaufort; a common summer resident in eastern Quebec. (*Dionne*.) A common winter visitant at Montreal; I observed a large flock of these birds, October, 18th, 1885 on Isle Jesus, feeding on willows. (*Wintle*.)

A common winter resident at Ottawa, Ont.; though somewhat irregular in its visits like most of our winter birds. Summer records are as follows: May 10, 1882; May 15, and August 15, 1884; May 2, 1888, and May 16, 1890. (*Ottawa Naturalist*, Vol. V.) I have often met with immense flocks in the Parry Sound and Muskoka districts. They keep together till May when they either disperse or disappear. In the winter the flocks are joined by redpolls and goldfinches. (*J. H. Fleming*.) A winter visitor at Guelph, Ont. (*A. B. Klugh*.) Winter resident at Penetanguishene, Ont. (*A. F. Young*.) An irregular migrant in Manitoba; often seen in flocks of hundreds. (*Thompson-Seton*.) Two specimens

seen at Grand Rapids on the Saskatchewan. (*Nutting.*) Common on Methye Portage, Sask. (*J. M. Macoun.*) On June 2nd, 1892, this species was common on the shore of Deep Lake near Indian Head, Assa., where they were feeding on some small insects near the water, two were shot and their stomachs were full of the insects; a few observed at Medicine Hat, Assa., in April, 1894; in the foothills of the Rocky Mountains, north to Edmonton, Alta. 1897; and thence to Peace River Landing, Atha., in 1903; common in flocks in June, 1891 at Banff, Rocky Mountains; observed at Trail, Sophie Mountain and Old Glory Mountain near the International Boundary, 1902, and at Penticton, B.C., 1903; flocks observed at Agassiz, B.C., May 14th, 1889; seen flying in large flocks at Huntington and Chilliwack, B.C., feeding on the seeds of the western birch; two seen May 9th, 1893 at Victoria, Vancouver Island; common in flocks at Goldstream, Qualicum and Comox in June. (*Spreadborough.*) An abundant summer resident on both slopes of the Coast Range. (*Lord.*) Extremely abundant; arriving and departing in enormous flocks. (*Streator.*) Throughout the province; an abundant resident; appearing in great flocks during fall and winter at Victoria. (*Fannin.*) Common resident at Chilliwack, B.C.; an abundant winter resident at Lake Okanagan, B.C. (*Brooks.*) A very abundant resident in all localities, B.C. (*Rhoads.*)

Heard occasionally on Queen Charlotte Islands, B.C.; three specimens were secured from a large flock at Tyonek, Cook's Inlet, Alaska, in September; no others were seen. (*Osgood.*) This bird was noted on the Yukon River at Windy Island, Lake Tagish (about Lat. 60°, B.C.), Lower Lebarge, Selwyn River, Sixty-mile Creek, Dawson, and Forty-mile Creek, Yukon District; also at Circle City, Tatondu River and Charlie Creek in Alaska. (*Bishop.*) Two examples in yellowish juvenal plumage were taken at Homer, Alaska, on September 8th, 1901. Very common during early summer on Kenai Peninsula, Alaska, where many large flocks were seen migrating to the northward during July. A few more seen during August and September, and I am inclined to believe that it breeds very rarely there. (*Chapman.*)

BREEDING NOTES.—On the 16th of March, while at Christie's camp, I saw a bird gathering material, and by watching her soon located the nest. The female alone carried material, the male

accompanying her to and from the nest, singing constantly. A very short stop was made at the nest. Evidently some material was accumulated before it was arranged. A day or two after finding the nest I went to Shulee early in the morning, going to Two Rivers, and thence through the woods to the camp. At this date the ground was mostly covered with snow in the woods, though it was rapidly melting. I found the nest completed. The bird refused to leave the nest until I was nearly within reach; she remained near, several times returning to the eggs for a moment. The nest was placed well out towards the end of a limb of a spruce tree 27 feet above the ground. It was saddled on the limb and radiating twigs but not attached to them. Considering the size of the bird it is quite large, rather flat and bears no resemblance to nests of *Spinus tristis*, measuring as follows: height, 1.63 inches; depth, .75 inches; outside top diameter, 4 inches; inside top diameter, 2 inches. It is constructed mainly of dark pendulous tree-moss, with some fulvous bark from weed-stalks, plant-down, *Usnea* and other mosses. About the bottom of the nest is woven a few spruce twigs. The lining is entirely the pendulous moss. It contained four eggs but slightly incubated. These have a pale blue ground-colour, slightly darker than eggs of *Spinus tristis*, somewhat sparingly marked about the larger end with pale purplish and a few dots of brownish black. (*Morrell.*) Common in winter in Ontario. This bird, of all wild birds, breeds the most readily in confinement. I have seen eggs that were laid by birds belonging to Dr. C. K. Clarke, of Rockwood, Ont., which had only been captured the previous winter, so had not been in a cage for more than a few months. (*Rev. C. J. Young.*) I have several nests with sets of eggs that were taken at Hamilton Inlet, Labrador, during the summers of 1895 to 1898. One nest before me is a pretty specimen of bird architecture, and made externally of fine twigs and roots held together by moss with the inside lined with feathers. It was found June 17th, 1898, in a spruce tree 10 feet from the ground and contained five greenish white eggs spotted with brown. (*W. Raine.*) I have taken seven nests around Ottawa, Ont., in cedar trees (*Thuja occidentalis*) at heights of six, eight, ten and twelve feet. The nest is built of small twigs and a little vegetable down, lined with hair-like roots or hairs. Size of nest 3.50 x 2, and 2 x 1. It nests in April and May, and lays three or

four pale blue eggs, dotted at the larger end with brown. (*Garneau.*)

MUSEUM SPECIMENS.

Eleven; two taken at Ottawa in May, 1888, by Prof. Macoun; two at London, Ont., by Mr. W. E. Saunders; two at Bracebridge, Ont., in February, 1892, one at Medicine Hat, Assa., May, 1894, one at Spence's Bridge, B.C., in May, 1889, one at Cascade, B.C., June, 1902, and two at Penticton, B.C., 1903, all by Mr. W. Spreadborough.

Two sets of eggs taken at Wolfville, Kings Co., N.S.; one of four eggs taken June 4th, 1894, and another of three eggs taken August 4th, 1894, both by H. Tufts.

CXIII. **PASSERINA** VIEILLIOT. 1816.534. **Snowflake.**

Passerina nivalis (LINN.) VIEILL. 1820.

Breeds generally throughout Greenland and said to be the commonest land bird on the east coast; breeds also on Melville Peninsula, and is very numerous on the Parry Islands; seen by Kane at Renssalaer Harbour in June, 1854. (*Arct. Man.*) Abundant at Fort Chimo, Labrador. Breeds on the islands in Ungava Bay and occasionally on the mainland. Resident in the southern portion of Labrador. (*Packard.*) Not observed in crossing Labrador from Richmond Gulf to Ungava Bay; observed on Hudson Strait going south September 20th, 1896. (*Spreadborough.*) Several nests taken in August, 1902, in Tuctoo valley near the Peary headquarters, West Greenland. All the nests except one contained five eggs, the exception seven. A number of specimens taken at Disco, Greenland, in July, 1892, by the Relief expedition. The snow bunting appeared at Port Manvers, northeastern Labrador, about the 10th of August after which they became abundant. (*Witmer Stone.*) Common from April 1st to Oct. 21st at Prince of Wales Sound, Hudson Strait; breeding in large numbers. (*Payne.*) Fort Churchill, Hudson Bay. (*Wright.*) Taken at York Factory, Hudson Bay. (*Dr. R. Bell.*) Very common in its summer migrations in Newfoundland. (*Reeks.*) Not so common in winter as formerly in Nova Scotia. (*Downs.*) First seen at Parrsboro, Cumberland Co., N.S., January 19th, 1897; not very

common, but from three to twelve birds in a flock. (*Morrell.*) Three seen on Sable Island, N.S., April 21st; one in July and a number in October, 1902. (*James Bouteillier.*)

An abundant winter resident in New Brunswick. (*Chamberlain.*) A common winter visitor at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Leave Lake Mistissini, Que., for the north about May 10th. (*J. M. Macconn.*) A common winter resident in eastern Quebec. (*Dionne.*) Abundant winter visitant at Montreal, arrives about the middle of October in large flocks. I have observed them at Montreal from October 19th to April 26th. (*Wintle.*) A common winter visitor at Ottawa, Ont. (*Ottawa Naturalist*, Vol. V.) Commonly seen in large flocks during winter. I saw immense numbers at the head of Wolfe Island, near Kingston, Ont., in October, 1900, just before cold weather set in. Flocks remained until March, 1901. This bird, though nesting commonly in high latitudes sometimes rears its young on lofty mountains. A friend of mine found the nest on the Grampian Mountains in Invernesshire, Scotland. (*Rev. C. J. Young.*) Abundant in the winter in the Parry Sound and Muskoka districts; the last leave for the north soon after the 1st of May, and some are back by the 1st of October. (*J. H. Fleming.*) A winter visitor at Guelph, Ont. (*A. B. Klugh.*) An abundant winter resident at Penetanguishene, Ont. (*A. F. Young.*)

Very abundant in early spring; fall and winter resident in Manitoba. (*Thompson-Seton.*) Very abundant in the spring and fall migrations at Indian Head, Assa.; a few at Egg Lake, near Peace River Lat. 56°, August 30th, and at Lesser Slave Lake, September 5th, 1903; on McLeod River northwest of Edmonton, Alta., saw three on October 2nd, 1898, and hundreds of them on the shore of Lake Ste. Anne, October 12th; very common at Banff in winter and doubtless eastward to Manitoba; seen at Revelstoke, B.C., April 9th, 1890, disappeared on the 11th. (*Spreadborough.*) This neat and elegant bird breeds in the northernmost of the American islands, and on all the shores of the continent, from Chesterfield Inlet to Behring Strait. The most southerly breeding place recorded is Southampton Island in Lat. 62°, where Captain Lyons found a nest placed in the bosom of the corpse of an Eskimo child. (*Richardson.*) North to Fort Good Hope on the Mackenzie; abundant. (*Ross.*) On the 8th July, 1864, a nest of this species

was discovered in a small hole in a sand bank at least two feet from the entrance along the shores of Franklin Bay. The parent was snared on the nest. (*Macfarlane.*) The snowflake is very abundant every winter, near Prince Albert, Sask. It arrives as soon as the cold and the snow appear, usually about the middle of October, and remains as long as the weather is cold and bad. (*Coubeaux.*) Observed at Sumas, British Columbia. (*Lord.*) Abundant resident; more common east of Coast Range. (*Fannin.*) Rare migrant at Chilliwack; common in the winter at Okanagan Lake and in the Cariboo District, B.C. (*Brooks.*)

This species is a summer resident in all northern Alaska and extends its summer wanderings to the northern islands off the coast of the Arctic Sea. (*Nelson.*) This bird may be seen at St. Michael, or its vicinity, at any season of the year, except the coldest weather in midwinter. (*Turner.*) This species and the Lapland longspur are the commonest passerine birds, and in fact the only ones which could be said to be common at Point Barrow. (*Murdoch.*) Choris Peninsula and Cape Lowenstern, Alaska. A rather rare species around Kotzebue Sound, but two pairs were seen that had young. (*Grinnell.*) A series of 43 specimens, all from Point Barrow, Alaska, corresponds excellently with a series of Greenland birds obtained by the Peary expedition. (*Witmer Stone.*) One specimen was shot at White Pass summit on June 12th. At St. Michael I saw two in September, and numbers on St. George Island, Behring Sea. (*Bishop.*)

BREEDING NOTES.—I have a set of four eggs that were taken by F. F. Payne at Cape Prince of Wales, Hudson Strait, June 20th, 1886. On June 25th, 1901, a snow bunting built its nest in a hole under the eave of Mr. Stringer's house on Herschell Island in the Arctic Ocean, west of the mouth of Mackenzie Bay; on June 18th he found another nest and eggs on the ground in a hollow at the side of a hummock. (*W. Raine.*)

MUSEUM SPECIMENS.

Sixteen; seven taken at Ottawa, Ont., by Mr. S. Herring; four others taken at Ottawa by Mr. F. A. Saunders; one at Hamilton, Ont., by Mr. T. McIlwraith; five at Indian Head, Assa., in April, 1892, by Mr. Spreadborough; one in May, 1884, in the Fraser valley, B.C., by Mr. J. Fannin.

A large series of eggs from Nachvak, Labrador, taken by Mr. R. Gray in 1897. One set of seven eggs taken at Repulse Bay, Hudson Bay, by Captain A. Murray.

534a. **Pribilof Snowflake.**

Passerina nivalis townsendi (RIDGW.) RIDGW. 1898.

This species was described from specimens taken by myself at St. Michael, and by Mr. McKay at Nushagak, Bristol Bay. At both localities the bird appeared only as a migrant. (*Nelson.*) Aleutian Islands, including Pribilof Islands, and Shumagin Islands. (*Ridgway.*)

535. **McKay's Snowflake.**

Passerina hyperborea (RIDGW.) RIDGW. 1898.

Western Alaska, breeding on Hall Island, (and probably St. Matthew Island) Behring Sea. (*A. O. U. Check-List.*) Two specimens of this rare bird were recently sent to me from Bethel, 90 miles up the Kuskokwin River, in the western part of Alaska. This is probably the farthest inland at which the bird has yet been found. (*Witmer Stone* in *The Auk*, Vol. XV., 269, 1898.) Hall Island, Behring Sea, Aug. 4th, 1891. They were in large numbers on the beach and appeared to be breeding in the cliffs. (*J. M. Macoun.*)

MUSEUM SPECIMENS.

Three; taken on Hall Island, Behring Sea, by Mr. James M. Macoun, Aug. 4th, 1891.

CXCIV. **CALCARIUS** BECHSTEIN. 1803.

536. **Lapland Longspur.**

Calcarius lapponicus (LINN.) STEJN. 1882.

Breeds generally throughout Greenland as well as on the Melville Peninsula and other lands to the westward of Davis Strait. (*Arct. Man.*) Abundant at Fort Chimo, Labrador. Breeds near the mouth of the Koksoak River and on the larger islands. (*Packard.*) One observed on a small island in James Bay, June 15th, 1896; not seen again until September; then I saw them in large numbers on the barren ground below Fort

Chimo. (*Spreadborough.*) Taken at Disco, Greenland, where they were breeding 1891. Common in northeastern Labrador after August 3rd. Breed about Nachvak and northwest to Hudson Strait. South of Nachvak they occur only as migrants. (*Witmer Stone.*) Rather common 10 miles north of Fort Churchill, on the shores of Button Bay, where an immature bird was taken July 31st, 1900. Abundant on the "barren grounds" south of Cape Eskimo, August 4th. (*Edward A. Prebles.*) Not uncommon in Newfoundland. (*Reeks.*) Some specimens shot at Cole Harbor, Nova Scotia. (*Downs.*) Occurs in winter at Grand Manan, New Brunswick. (*Chamberlain.*) Fort Churchill, Hudson Bay. (*Clarke.*) Only one specimen taken at Prince of Wales Sound, Hudson Strait, on May 14th, 1885; none others were seen. (*Payne.*) Taken at Beauport; a winter resident in eastern Quebec. (*Dionne.*) A rare winter visitant at Montreal. This species is occasionally found mixing with the snowflake. (*Windle.*)

This species was first recorded at Ottawa, Ont., in the spring of 1890, when in company with horned larks and snowflakes. It remained in the flocks till May 25th. It was present again in the fall from Oct. 3rd to Nov. 18th. (*Ottawa Naturalist*, Vol. V.) The only record I am aware of is that of a flock reported by Mr. Wm. Melville at Gravenhurst, Ont., on April 27th, 1890. (*J. H. Fleming.*) In April, 1897, I met with a small flock of these birds at Toronto and took two or three males in grand plumage; in winter they more commonly appear in company with the snowflakes. (*J. Hughes-Samuel.*) Sometimes quite common in the spring migrations along Lake St. Clair, but very rare near London; only three or four specimens all told have been observed. (*W. E. Saunders.*)

One specimen shot on Mouse River (Souris), Dak., October 1st, 1873. The first of the southern migration. (*Coues.*) Very abundant spring and fall migrant wherever there is prairie or cleared country. They come in countless numbers about the middle of May and remain to the end of the month. After this time they go north-west to breed and return again about the last week in September. They remain about two weeks in the stubble fields and then pass southward. (*Thompson-Seton.*) Very abundant at Indian Head, Assa., in the spring and fall migrations; last of them seen at the end of May, 1892; on April 25th, 1894, a small

flock was seen at Crane Lake, Assa.; abundant as a migrant at Edmonton, Alta., from April 28th to May 5th, 1897. (*Spreadborough.*) In the year 1827 it appeared on the plains of the Saskatchewan at Carlton House about the middle of May and remained for about ten days. They came to Cumberland House about the same time and remained in the furrows of a newly ploughed field. In the preceding year they were seen, though in smaller flocks, at Fort Franklin, Lat. $65\frac{1}{2}^{\circ}$, in the beginning of May; the crops of those killed were filled with the seeds of *Arctostaphylos alpina*. (*Richardson.*) North to Fort Simpson on the Mackenzie River. (*Ross.*) Numerous every spring and fall in company with the horned lark at Prince Albert, Sask. (*Coubeaux.*) Altogether about eighty nests of this species were collected in the "barren grounds" and on the shores of Franklin Bay. (*Macfarlane.*)

BREEDING NOTES.—I have a dozen nests with sets of eggs that were collected at Herschell Island by Mr. Stringer and Mr. Young. The nests are made of dried grass, well lined with feathers and are always built on the ground, in the shelter of a tuft of grass or sod, and contain five or six eggs each. The eggs are laid in the middle of June and the female is a close sitter, most of the nests being found by flushing the bird off the nest. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-one; two taken at Ottawa by F. A. Saunders; one at Toronto by Mr. S. Herring; one purchased with the Holman collection in 1885; one taken at Cape Prince of Wales, Hudson Strait, by Mr. W. A. Paine; thirteen taken at Indian Head, Assa., part (chiefly young) in September, 1891 and the others in April, 1892, two at Edmonton, Alta., in May, 1897, all by Mr. W. Spreadborough.

Four sets of eggs ranging from 2-5 eggs each; one of five taken at Repulse Bay, Hudson Bay, in 1896 by Capt. A. Murray; three at Nachvack by R. Guy in 1897.

536a. *Alaskan Longspur.*

Calcarius lapponicus alascensis RIDGW. 1898.

The whole of Alaska, including Prybilof and Aleutian islands, Unalaska and the Shumagins, east to Fort Simpson. (*Ridgway.*) Throughout the province; nowhere common. Burrard Inlet, Vic-

toria and Port Simpson. (*Fannin.*) Common in the fall; rare in the spring at Chilliwack B.C. (*Brooks.*) Like the snowflake this species has a circumpolar distribution and is recorded from nearly every point visited by explorers, along the shores of the Arctic sea coast. (*Nelson.*) This species arrives at St. Michael from the 5th to the 15th May. A few arrive at first, and before a month elapses it is the most abundant land bird seen in the locality. (*Turner.*) Quite common at Point Barrow, but breeding inland on drier places than the snowflake which prefers the sea shore and the lagoons. (*Murdoch.*) I saw a small flock at the Aphoon mouth of the Yukon on the 27th August 1899; later they were seen at St. Michael and on Unalaska Island. (*Bishop.*)

BREEDING NOTES.—My acquaintance with the birds at this point was limited to the few hours ashore during this evening and the next. But the Alaskan longspur was, with the single exception of the snowy owl, the only land bird observed. The low-lying moss-covered tundras with not even a dwarfed bush or any extensive patch of grass to offer attraction to any other land bird, seemed to constitute a congenial abode for this species, and the longspurs were fairly common. They seemed to show preference for the driest tracts lying just back of the beach and on the higher ground separating the numerous lagoons and lakes. In my tramp across these tundras I would frequently meet with a male longspur standing motionless on some conspicuous hummock. If I approached too close he would attempt to get out of my way by stealthily running to one side, but if pressed he would take flight and mount upwards circling high overhead and uttering his pleasing song. I sometimes heard them singing from their perches on the ground, but they were most generally heard while circling with apparent aimlessness far above, the yellow reflection of the midnight sun bringing out their forms against the indigo sky. To my ear the song of the Alaskan longspur resembles closely that of the western meadowlark, except that it is much weaker and more prolonged. A nest was found at this point containing two newly-hatched young and three eggs. It was sunk into a hummock of sphagnum and completely concealed from above by a tussock of grass, part of which was artfully arched over it. The nest proper consisted of a remarkably scant lining of long, fine grasses. At Cape Lowenstern, on July 1st, I noted a few longspurs, and at Cape Blossom, over the rolling hills just back of the

coast, this bird was common. Its song was heard for a few days after our arrival, June 9th, but ceased altogether after the 16th. The first juveniles, full-grown, were seen on July 30th. In 1899, apparently a much earlier season, many nearly-fledged young were noted on July 1st. From August 1st to 12th, 1898, juveniles were plentiful in the vicinity of the mission. They were in small companies or scattered singly in the edge of the tall grass bordering the beaches. The tendency at this season seemed for them to be gathering into flocks, and on the 11th, the last day of our stay on the sound, I saw a flock of about 25. I last saw the Alaskan longspur in 1898 on the 16th of August; it was on our way up the Kowak, and at a point about 100 miles from the mouth. A small company flew across the river in front of our steamer in a southerly direction. In the spring of '99, on the Kowak, the first longspurs were noted on the 20th of May. In this region they inhabit the bare level stretches of tundra, extending at intervals from the river back to the foot-hills. On June 1st I secured a nest and five fresh eggs. The nest was embedded in the moss under an overhanging clump of dead grass, and consisted of fine dry grasses, with a lining of dark feathers of ptarmigan and short-eared owls. The diameter of the nest cavity 2.50, with a depth of 1.00. The eggs are nearly oblong-ovate in shape and measure .87 x .60, .86 x .61, .84 x .60, .86 x .60, .85 x .61. Their ground-colour, as disclosed for a limited space at the small ends of two eggs, is very pale blue. Otherwise the eggs are so completely covered with pigment as to be almost uniform isabella colour. Overlying this are scattered scrawls and dots of bistre. I found another nest on Chamisso Island on the 9th July. This was similarly located and contained four eggs in which incubation was nearly completed. (*Grinnell.*)

MUSEUM SPECIMENS.

One set of five eggs with nest taken on St. Paul Island, Behring Sea, June 20th, 1897 by Mr. J. M. Macoun. Nest made of dried fibres of small rootlets and grass, with an inner lining of grass mixed with a little hair.

537. **Smith's Longspur.**

Calcarius pictus (SWAINS.) STEJN. 1882.

Rather common in the meadows at Fort Churchill, Hudson Bay, July 23rd to 30th, 1900. They were quite tame, but hard to see

on the mossy hillocks. (*Prebles.*) Observed only on one occasion near the Souris River, when it was in company with chestnut-collared and Lapland longspur, having like the last species just arrived from the north. (*Cones.*) An abundant spring but rare fall migrant in Manitoba; on May 17th, 1884, they were at Carberry, Man., in enormous numbers, and I had no difficulty in getting all the specimens I desired. (*Thompson-Seton.*) A large flock was seen at Indian Head, Assa., on May 12th, 1892, common by the 15th but gone in a few days; a few were seen at Egg Lake, Peace River, Lat. 56° on August 30th, and others at Lesser Slave Lake, September 5th, 1903. (*Spreadborough.*) This species was observed associating with Lapland buntings on the banks of the Saskatchewan, but no information regarding its breeding habits was received. Only one specimen was obtained. (*Richardson.*) North to Fort Simpson on the Mackenzie River; rather rare. (*Ross.*) Very abundant in the country to the eastward of Fort Anderson in the "barren grounds," and on the lower Anderson River. (*Macfarlane.*) This species has been taken at Fort Yukon by Strachan Jones but there is no other record of its having been taken in Alaska. (*Nelson.*) One male secured at Point Barrow, Alaska, June 11th, 1898. (*Witmer Stone.*)

BREEDING NOTES.—This bird breeds abundantly on the slopes of the Caribou Hills, 80 miles south of the Arctic Coast west of the Mackenzie River delta. Here Mr. Stringer found several nests in June, 1897. They were built on the the ground in grassy hummocks and contained from 4 to 6 eggs in each, which somewhat resemble eggs of the Lapland longspur, except that they have a paler ground-colour. Ten nests before me are all made of dry grass and well lined with feathers. (*W. Raine.*)

MUSEUM SPECIMENS.

Three taken at Indian Head, Assa., one in September, 1891, and two in May, 1892, all by Mr. W. Spreadborough.

538 **Chestnut-collared Longspur.**

Calcarius ornatus (TOWNS.) STEJN. 1882.

These birds were not noticed in the immediate vicinity of Red River, but I had no sooner passed the Pembina Mountains than I found them in profusion; from thence they extend in more or less abundance to the Rocky Mountains. (*Cones.*) A common

summer resident in Manitoba, local in distribution, many pairs affecting a limited area of dry prairie, while for miles no more of this species are to be seen. (*Thompson-Seton.*) First seen at Indian Head, Assa., May 12th, 1892, by the 18th they were common; they breed there in great numbers; very common at Crane Lake; seen in large flocks flying in company with McCown's bunting at Medicine Hat, May 2nd, 1894; breeding in large numbers at Crane Lake in June; found three nests with young and one with four fresh eggs June 12th, 1894, the nest was a rather deep hole in the ground, lined with a little dried grass; nest on the open prairie in short grass; rare at the Cypress Hills, only one specimen seen in a week. (*Spreadborough.*) Quite common at Brandon, Man., and Moose Jaw, Assa., in 1896. This is a common bird everywhere on the prairie from Indian Head, Assa., westward to Frenchman's River; this species, the horned lark and McCown's bunting make up nearly the whole avi-fauna of the absolute prairie. It is exclusively a prairie bird and is more or less common in all the country traversed in 1895 to Milk River. No nests were taken before June 18th, though in the preceding year young were hatched before that date. (*Macoun.*) I have found this bird breeding abundantly throughout the prairie parts of Manitoba and Assiniboia. It was especially numerous on the prairie north of Moose Jaw, Assa., where during the first week of June, 1891, I found many nests on the ground at the side of sods and containing five or six eggs each. (*W. Raine.*)

BREEDING NOTES.—My first specimens were secured July 14th, 1873, at which dates the early broods were already on wing. Uniting of several families had scarcely begun, however, nor were small flocks made up, apparently, till the first broods had, as a general thing, been left to themselves, the parents busying themselves with a second set of eggs. Then straggling troops, consisting chiefly of birds of the year, were almost continually seen, mixing freely with Baird's buntings and the skylarks; in fact, most of the congregations of prairie birds that were successively disturbed by our advancing wagon-trains consisted of all three of these, with a considerable sprinkling of Savanna sparrows, shore larks and bay-winged buntings. The first eggs I secured were July 18th, nearly a week after I had found young on wing; these were fresh; other nests examined at the same time contained newly hatched young. Again, I have found fresh eggs so late as

the first week in August. During the second season, the first eggs were taken July 6th, and at that time there were already plenty of young birds flying. The laying-season must consequently reach over a period of at least two months. I was not on the ground early enough to determine the commencement exactly, but supposing a two weeks' incubation, and about the same length of time occupied in rearing the young in the nest, the first batch of eggs must be laid early in June to give the sets of young which fly by the first of July. There is obviously time for the first pair to get a second, if not a third, brood off their hands by the end of August; I should say that certainly two, and probably three, broods are reared, as a rule. The result of all this is that from the end of June until the end of August young birds in every state of plumage, and the parents in various degrees of wear and tear, are all found together. The nest, of course, is placed on the ground, usually beneath some little tuft of grass or weeds, which effectually conceals it. Like that of other ground-building sparrows, it is sunk flush with the surface of the ground, thin at the bottom, but with thicker and tolerably firm brim; it consists simply of a few grasses and weed-stems for the most part circularly disposed. In size, the cup is about $3\frac{1}{2}$ inches across the brim and nearly 2 in depth. During the first season, I only found four eggs or young in a nest; but I afterward took one containing six eggs. These measure about $\frac{1}{2}$ long by $\frac{3}{8}$ broad, of an ordinary shape. They are difficult to describe as to colour, for the marking is intricate as well as very variable here as elsewhere in the genus. I have called them "grayish-white" more or less clouded and mottled with pale purplish gray which confers the prevailing tone; this is overlaid with numerous surface markings of points, scratches and small spots of dark brown, wholly indeterminate in distribution and number, but always conspicuous, being sharply displayed upon the subdued ground colour. On those occasions when I approached a nest containing eggs, the female usually walked off quietly, after a little flutter, to some distance, and then took wing; at other times, however, when there were young in the nest, both parents hovered close overhead, with continuous cries. (*Coues.*)

MUSEUM SPECIMENS.

Seven; three taken at Indian Head, Assa., in September, 1891, and May, 1892, one at Medicine Hat, Assa., May, 1894, and

two at Crane Lake, Assa., June, 1894, all by Mr. Spreadborough.

Numerous nests were taken at Crane Lake in June, 1894, but nearly all contained young or eggs nearly hatched. In June, 1895, many nests were found south of the Cypress Hills and in all the nests the sets ranged from 3-5. The sets in the collection were taken at Crane Lake June 8th and 9th, 1894, by Prof. Macoun.

CXCV. **RHYNCHOPHANES** BAIRD. 1858.

530. **McCown's Longspur.**

Rhynchophanes mccownii (LAWR.) RIDGW. 1877.

A specimen of this bird was taken just west of Manitoba by Mr. Thorpe near Dalesboro. (*Thompson-Seton*.) This species was never seen in the Red River region and I do not think it occurs on that watershed which is so thickly populated in summer with *C. ornatus*. It seems to be one of the many birds that mark the natural division between that region and the Missouri Basin. The first specimen taken was near Fort Buford. As we progressed towards the Milk River the bird became more and more abundant and it occurred throughout the country thence to the Rocky Mountains. McCown's longspur was very abundant in the country about Frenchman's River where both species were breeding, but further west *C. ornatus*, diminished in numbers while McCown's longspur increased and extended to the foothills of the Rocky Mountains. (*Coues*.) First seen at Indian Head, Assa., May 23rd, 1892; by the first June they were abundant on burnt prairie and land that had been broken and let run to weeds. Numbers remained to breed; two individuals were seen at Medicine Hat, Assa., April 21st, 1894, after which time they became common both there and at Crane Lake 100 miles further east. By May 2nd they were in thousands at Medicine Hat and numbers of males were in full song. Common at Crane Lake in June; amongst other nests one was found containing five eggs, one of which belonged to a cowbird. The nest was a rather deep hole in the prairie, lined with a little dried grass; in 1895 they were common at Moose Jaw, at Old Wives' Creek, Wood Mountain, Frenchman's River up to the Cypress Hills, Assa., but not in the hills, and westerly from there to Milk River, where they decreased in numbers and only a few extended to the foothills near Waterton Lake; observed a num-

ber at Calgary, Alta., June 19th, 1897; one seen on the shore of an island in Lesser Slave Lake, Atha., May 31st, 1903. This species and *C. ornatus* were always found together and are true prairie species. (*Spreadborough.*) I secured an adult male on June 3rd, 1887, and on the same day three years later, shot two females at the same place; these are all I have seen at Chilliwack, B.C. (*Brooks.*)

BREEDING NOTES.—This bird is a great favorite of mine. I love its sweet song, for the male bird has the habit of soaring into the air for some distance and then descending with outstretched wings, with a parachute-like descent sliding down on the scale of its own delicious music. During June, 1891 and 1893, I found this species abundant on the hilly prairie north of Rush Lake, Assa. Here it builds its nest on the ground at the side of a sod and lays four or five eggs. The female is a close sitter, not leaving the nest until the intruder has stepped close up to it. The eggs are like those of Smith's longspur in colour and markings, but average smaller in size. (*W. Raine.*) This is a very common species in many parts of the prairie region. Many nests were seen in 1894 and 1895 and all were in a hole in the ground with slight elevation on one side. Nest of dried grass and indistinguishable from that of the chestnut-collared bunting. (*Macoun.*)

MUSEUM SPECIMENS.

Fourteen; two taken at Indian Head, Assa., May, 1892, one at Old Wives' Creek, Assa., May 25th, 1895, two at Crane Lake, Assa., April 25th, 1894, eight at Medicine Hat, Assa., in April and May, 1894, all by Mr. Spreadborough; one taken at Rush Lake, Assa., May 29th, 1893, by Mr. W. Raine.

Two sets of four eggs each, one taken at Crane Lake, June 11th, 1894 and the other south of Wood Mountain, Assa., June 14th, 1895, both by Prof. Macoun.

CXCVI. **POOCÆTES** BAIRD. 1858.

540. **Vesper Sparrow.**

Poocætes gramineus (GMEL.) BAIRD. 1858.

A common resident in fields in Nova Scotia. (*Downs.*) Common in King's Co., N.S. from the middle of April to October. (*H. Tufts.*) Not uncommon at Baddeck and Margaree, Cape

Breton Island, N.S., July, 1898; a few specimens seen at Rustico, Prince Edward Island, 2nd July, 1888. (*Macoun.*) An abundant bird on Prince Edward Island, frequenting the open fields in the more settled districts. (*Dwight.*) One specimen shot at Hampton, N.B., June, 1881. (*Chamberlain.*) An abundant summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Not common in eastern Quebec. (*Dionne.*) A common summer resident in the Montreal district; breeds on the island of Montreal. Nests with eggs found from May 14th to 28th; observed from April 7th to October 8th. (*Wintle.*) An abundant summer resident breeding in large numbers. (*Ottawa Naturalist*, Vol. V.) Very common in meadows and pastures; have found the nest on two occasions the last of April. (*Rev. C. J. Young.*) One of the commonest summer residents in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) A very common summer resident in all western Ontario. (*W. E. Saunders.*) An abundant summer resident at Guelph, Ont.; arrives about April 1st and leaves about October 15th. (*A. B. Klugh.*) Very abundant in summer; breeding at Penetanguishene, Ont. (*A. F. Young.*) One pair found breeding at Cache Lake, Algonquin Park, Ont., 1900. (*Spreadborough.*) Common at Grand Rapids of the Saskatchewan River; specimens taken, all males. (*Nutting.*) Numerous in all open situations between the Coast Range and the Rockies as far north as Lac la Hache, B.C. (*Rhoads.*) Mr. Streater and the writer place the Ashcroft, B.C. birds under *confinis*.

The vesper sparrows of Cariboo District, B.C. seem closer to the typical species than to either of the subspecies *affinis* or *confinis*. They were common at 158-Mile House, and were also breeding at timber line at Barkerville. (*Brooks.*)

breeding notes.—Nest bulky, near stone quarry, built on the ground composed of grass and weed stalks, lined with horse hair and fine grass; eggs 4, grayish white, marked all over with spots and splashes of dull reddish brown. (*G. R. White.*) Arrives in New Brunswick from winter quarters during April. Have found with full sets of eggs early in May; and once a nest with three eggs was found with partly incubated eggs in September. (*W. H. Moore.*) This species breeds around Ottawa in May and June. Nest sunken in the ground, the brim being on a level with the soil; nest composed of grasses with sometimes a few bits of green moss or a few hairs; four or five eggs are the usual number. (*Garneau.*)

MUSEUM SPECIMENS.

Six ; two taken at Ottawa, Ont., in July and October, 1890, by F. A. Saunders ; one at London, Ont., taken April 15th, 1881 ; two taken at Toronto, by S. Herring.

One set of four eggs taken at Ottawa, June 2nd, 1898 ; nest on the ground made of dried grass.

540a. Western Vesper Sparrow.

Pooecetes gramineus confinis BAIRD. 1858.

This species breeds from Pembina on the east to the base of the Rocky Mountains on the west along the 49th parallel. (*Coues.*) A very abundant summer resident on the prairies of Manitoba. (*Thompson-Seton.*) This species arrives on the Saskatchewan plains early in May, and frequents the withered grass which makes an excellent cover. It was not seen by us beyond Lat. 57°. (*Richardson.*) On 26th June, 1864, we found a nest of this species containing six eggs in a sparsely wooded tract of country to the east of Fort Anderson. (*Macfarlane.*) Quite a common summer resident throughout the country around Prince Albert, Sask., and to be seen running ahead on every trail ; breeding in great numbers in the region. (*Coubeaux.*) In 1895 this species was common from Winnipeg to the Rocky Mountains on or about the 49th parallel. It always nested on the ground, but seemed to prefer being where there is more or less brush. It was first found nesting on June 2nd. First seen at Indian Head, Assa., on May 9th, 1892 ; common by the 13th ; found two nests on the ground, June 7th, with four eggs in each ; first seen at Medicine Hat, Assa., April 30th, 1894, two individuals, both males ; next day five were seen and by May 4th they were common and the same at Crane Lake on the 7th ; common in the east end of the Cypress Hills in the latter end of June ; in 1891 it was found to be common and breeding around Banff, Rocky Mountains, in the direction of Devil's Lake ; at Edmonton, Alta., May 1st, 1897, they very soon became common and began to pair. They were common in the foothills from Calgary to Crow's Nest Pass. Common on all the small prairies throughout the Peace River country between Lat. 55°-57° ; common along the trail on all the dry grass land from Edmonton to Jasper House in 1898 ; this species was common at Kamloops, Spence's Bridge, Enderby and

the Nicola valley, B.C., in June, 1889, and on the plateau between the North Thompson and Bonaparte rivers; a few observed at Chilliwack, B.C., in the spring, and one at the mouth of Tami Hy Creek, September 8th, 1901. In April and May, 1903, they were quite common at Penticton in southern British Columbia. (*Spreadborough.*) Very common in the interior; breeds. (*Streator.*) An abundant summer resident east of Coast Range, also on Vancouver Island. (*Fannin.*) Migrant; not common at Chilliwack. Specimens are very pale and may belong to *affinis*. (*Brooks.*)

BREEDING NOTES.—Several nests were found at Pembina, containing eggs, about the middle of June. One of them also held two *Molothrus* eggs. The nests were built in open ground, quite deeply sunken so as to be flush with the surface, and more substantial than those of many ground-builders, the walls being an inch or more thick at the brim. The cavity is small and deep in comparison with the whole nest. The usual materials are grasses and weed-stalks, the coarser material outside, the finer fibres within and at the bottom. The eggs, of which I have not found more than four, measure about 0.80 by 0.55; they are grayish-white, heavily marked all over with spots, dashes and blotches of reddish-brown, and a sprinkling of fine dots of the same or darker brown. The female is a close sitter, not leaving the nest until nearly trodden upon, and then fluttering off as if crippled, to distract attention from the nest to herself. (*Coues.*) This is a very common prairie species, breeding in all parts of Assiniboia and Alberta. A nest taken on 31st May, 1895, contained three fresh eggs. The nest was, on the sloping side of a coulée, placed on the ground under a tuft of grass. It was built chiefly of fine material, the base being leaves of grass, the coarser at the bottom. A few hairs were worked in at the last. Another nest identical in every way was taken 19th June, in a clump of *Potentilla gracilis* at the edge of a ravine. (*Macoun.*)

MUSEUM SPECIMENS.

Twenty-seven; one taken at Carberry, Man., by Mr. Thompson-Seton; four at Indian Head, Assa., in May, 1891, one at Old Wives' Creek, Assa., May 27th, 1895, seven at Medicine Hat, Assa., May, 1894, two at Edmonton, Alta., May, 1897, six at Banff, Rocky Mountains, May, 1891, two at Kamloops, B.C., June 20th,

1889, three at Spence's Bridge, B.C., May, 1889, and four at Pen-ticton, B.C., April, 1903, all by Mr. Spreadborough.

Two sets of four eggs each taken at Crane Lake, Assa., June 11th, 1894, by Prof. Macoun; another set of four eggs taken at Fort Saskatchewan, Alta., May 7th, 1898, received from Mr. W. Raine.

540*b*. **Oregon Vesper Sparrow.**

Pooecetes gramineus affinis MILLER. 1888.

Western Washington and British Columbia, including Van-couver Island. (*Ridgway.*) West side of Coast Range, B.C., and Vancouver Island. (*Fannin.*) A few observed at Chilliwack, B.C., in the spring of 1901; and one individual at the mouth of Tami Hy Creek, Sept. 9th of the same year. (*Spreadborough.*)

MUSEUM SPECIMEN.

One taken at the mouth of Tami Hy Creek, Chilliwack River, B.C., September 9th, 1901, by W. Spreadborough.

CXCVII. **PASSERCULUS** BONAPARTE. 1838.

541. **Ipswich Sparrow.**

Passerculus princeps MAYNARD. 1872.

Taken at Lawrencetown near Halifax, N.S., March, 1878. (*Matthew Jones.*) One taken at Point Lepreaux, N.B., April, 1876. (*Chamberlain.*) On April 7th, 1895, when 260 miles from Halifax on board the S.S. *Labrador* bound for Liverpool, two of these sparrows came on board and remained for some hours; apparently they were on their way to Newfoundland. (*J. H. Fleming.*) In the summer of 1899 the writer spent six weeks on Sable Island and had ample opportunity to study the habits of this bird. It was the only resident land-bird on the island and all nests found whether new or old belonged to it. Most of those found were scooped out of the sand and built more or less with grass. Many birds winter on the island, and as far as known it is its only breeding grounds. Dr. Jonathan Dwight, jr., of New York has written a full account of its habits and nesting on the island. In 1902 Mr. W. E. Saunders, of London, Ont., who spent some time on the island, published a very full account of its life history in the *Ottawa Naturalist*, Vol. XVI.

542. **Sandwich Sparrow.**

Passerculus sandwichensis (GMEL.) BAIRD. 1858.

A few were seen on Unalaska Island, October 5th, 1899, and two young secured. (*Bishop*.) This species occurs during the summer along the entire Aleutian chain and on the island of Kadiak, in addition to the southeastern shore of the territory. Dall cites it from Unalaska where he found it numerous as he did also to the eastward, but he did not find it to the west of that island. (*Nelson*.) This species is one of the earliest arrivals at Unalaska, usually about the 10th of May. They breed in June in the grass. (*Turner*.) On June 3rd, 1890, in a grassy patch near Lukanin beach, on St. Paul Island, I several times flushed a sparrow which I identified as this species. (*Palmer*.) Five specimens were taken on Amagnak Island, near Dutch Harbour, Unalaska, in September, 1897. (*Grinnell*.)

Common about the prairies and open timbered lands. (*Lord*.) Common on the coast in the fall. (*Streator*.) An abundant summer resident west of Coast Range; breeds on Vancouver Island. (*Fannin*.) Tolerably common migrant at Chilliwack. (*Brooks*.) A few specimens taken at Chilliwack, B.C., in the spring of 1901; taken at Hastings, April, 1889; first seen near Victoria, Vancouver Island, about April 20th, 1893, by May 4th they were common. (*Spreadborough*.) One seen on April 23rd, 1887, at Victoria; abundant the next day; common along the sea coast at Salt Spring Island, Nanaimo and Comox. (*Macoun*.)

BREEDING NOTES.—On June 10th, 1893, at Vancouver, B.C., found a nest and five eggs of this bird. The nest was built on the ground, made of dried grass and lined with hair. The eggs are greenish-white, heavily blotched and spotted with light brown and lilac; size .74 by .54 inches. (*W. Raine*.)

MUSEUM SPECIMEN.

One specimen taken at Victoria, Vancouver Island, April, 19th, 1887, by the writer.

542a. **Savanna Sparrow.**

Passerculus sandwichensis savanna (WILS.) RIDGW. 1880.

Common throughout eastern Labrador; breeds at the mouth of the Koksoak River and at Davis Inlet. (*Packard*.) Tolerably

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common on the islands and shores of James Bay, from Moose Factory to Richmond Gulf; none seen in crossing Ungava until we neared Fort Chimo. (*Spreadborough.*) Two adult specimens from Chateau Bay, July 14th, 1891. (*Norton.*) Abundant throughout the summer in Newfoundland. (*Reeks.*) Uncommon; passes through Nova Scotia in spring. (*Downs.*) Very common from the middle of April till October in Kings Co., N.S. (*H. Tufts.*) Rather rare at Baddeck and Margaree, Cape Breton Island, July, 1898; common on the shore at Brackley Beach, Prince Edward Island, June 29th, 1888. (*Macoun.*) This is probably the most abundant bird on Prince Edward Island, and is found everywhere except in woods. On sand beaches, marshes or dry fields its weak song was constantly heard and in certain pastures it seemed as if every third fence-post was occupied by a singer. (*Dwight.*)

An abundant summer resident in New Brunswick. (*Chamberlain.*) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Very abundant on the Magdalen Islands; breeding in every open field. (*Bishop.*) An abundant species on all the grassy islands and shores of the Gulf of St. Lawrence. (*Brewster.*) A common summer resident in eastern Quebec. (*Dionne.*) An abundant summer resident at Montreal; breeds on the Island of Montreal. Nests with eggs found May 24th. Observed here from April 7th to October 1st. (*Wintle.*)

A common summer resident at Ottawa; breeds by St. Louis dam. (*Ottawa Naturalist*, Vol. V.) I found this bird to be the commonest bird on the Magdalen Islands in 1897. It nests in May and June and usually lays five eggs, but sometimes only four. It is also very common on Simcoe Island, in Lake Ontario, but not so common on the main shore. (*Rev. C. J. Young.*) Reported by Mr. Tavernier as common at Beaumaris, Muskoka district, on April 22, 1898; I have not met with it in Parry Sound. (*J. H. Fleming.*) An abundant species around Toronto in all suitable localities. (*J. Hughes-Samuel.*) Observed a pair at C ache Lake, Algonquin Park, Ont., June 18th, 1900. (*Spreadborough.*) A common summer resident at Guelph, Ont. An inhabitant of pastures. (*A. B. Klugh.*)

BREEDING NOTES.—Nest on ground, built of grass and lined with horse hair; eggs four, a light gray, thickly mottled with

reddish brown. (*G. R. White.*) The nesting season at Scotch Lake, York Co., N.B., is from May to July. Three to five eggs are laid in a loosely constructed nest of grasses on the ground, or sometimes by the side of a log or root. (*W. H. Moore.*) Quite common at Ottawa and Lake Nomingue. Nest sunken in the ground and hidden by the grass, made with grasses, rootlets and hairs. Sometimes only two or three bits of grass and hairs are used. One nest was found in sand under a potato plant. It nests in May, June and July and lays four eggs. (*Garneau.*)

MUSEUM SPECIMENS.

Four; taken at Ottawa in October, 1890, and September, 1891, by Mr. F. A. Saunders.

One set of four eggs taken on Toronto Island on May 10th, 1896, by Mr. W. Raine, and another of four taken in the same place June 21st, 1894, by Mr. G. F. Dippie.

542b. **Western Savanna Sparrow.**

Passerculus sandwichensis alaudinus (BONAP.) RIDGW. 1877.

Breeds in profusion throughout the region explored, that is along the 49th parallel. Though not exclusively a bird of the prairie, it seems to be as much at home in the open plains as anywhere, associating with *Centronyx*, the chestnut-collared and McCown's longspurs. It is also found in the brush along streams and the larger rivers which are not frequented by the above species. (*Coues.*) An abundant summer resident on the prairies in Manitoba. The bird is remarkably shy, even in places where man is scarcely ever seen. (*Thompson-Seton.*) First seen May 11th, 1892, at Indian Head, Assa., common by May 13th; they breed in the vicinity in great numbers; common at Crane Lake, Assa.; seemed to prefer low ground where there were bushes; quite common on the east end of the Cypress Hills the last week in June, 1894, in low damp ground. In 1895 its habits were more carefully observed and it was found that it was always by pools of water or in marshes at West Selkirk, Brandon, Moose Jaw, Parkbeg and Old Wives' Creek. It was found nesting at 12-Mile Lake, near Wood Mountain, and always in marshy spots. This species was noted wherever there was water or marsh for 400 miles to the westward to the foothills of the Rocky Mountains. (*Macoun.*) First seen at Edmonton, Alta., May 3rd, 1897, next

day they were common ; two nests were taken on the ground near a lake; each contained five eggs; common in the foothills, south of Calgary in 1897; first seen on April 25th, common 29th at Penticton south of Lake Okanagan, B.C.; common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, June, 1903; common on the damp grass land from Edmonton to Jasper House, also in the MacLennan River valley, B.C., in 1898; one of the commonest species from the Rocky Mountains to the Pacific coast. This species was taken at Banff, in the Rocky Mountains, in 1891, and at Revelstoke, mouth of Salmon River, Agassiz and Huntington, B.C.; also at Victoria, Vancouver Island. (*Spreadborough.*) This is a common species from the Saskatchewan northward to the "barren grounds." (*Richardson.*) Not uncommon, but in summer only, and breeding here on the prairie at Prince Albert, Sask. (*Coubeaux.*) Common down the Mackenzie River to its mouth. (*Ross.*) Very abundant in marshy and sparsely wooded tracts or plains near Fort Anderson and on the lower river, seeing that "upwards of 200 nests with eggs" were collected in that quarter. They were all placed on the ground and composed of dry stems of grasses lined with finer materials of the same. Sometimes the nests are lined with a few feathers and deer hair. The number of eggs in a nest was four or five. (*Macfarlane.*)

Common about the prairies and open places. (*Lord.*) Abundant summer resident on the coast. (*Streator.*) Summer resident on the coast. (*Fannin.*) An abundant summer resident at Chilliwack, an occasional bird remaining all winter. (*Brooks.*) This form breeds in all localities in British Columbia from the Rocky Mountains to the coast, including the islands, from the sea level to 5,000 feet. (*Rhoads.*) Sumas prairie, Lulu Island and English Bay, B.C.; common at those localities. (*E. F. G. White.*) Next to the Lapland longspur this bird is the most abundant of the sparrow tribe throughout the Behring Sea coast region of Alaska, and it extends thence north to the Arctic shores of the territory. (*Nelson.*) This species was not obtained at the Aleutian Islands, but at St. Michael it was as common as the other species. (*Turner.*) The western Savanna sparrow was fairly numerous in the vicinity of Cape Blossom, Kotzebue Sound. The grassy meadows bordering lagoons seemed to be its most congenial haunt, although I met with a few on the hillsides

towards the interior of the peninsula; young were half-fledged by July 10th. (*Grinnell*.) Six breeding specimens taken between June 1st and July 27th, and three in winter plumage, illustrate this species as seen at Point Barrow, Alaska. (*Witmer Stone*.) A few were seen and four specimens taken at Hope and Tyonek, Cook's Inlet, Alaska, September, 1900. (*Osgood*.) I saw several Savanna sparrows in the marshes at Chilkat Inlet, June 1st, 1899, and took individuals at Haine's Mission and at Skagway and others at Glacier, Alaska; several pairs were seen at Log Cabin on Lake Bennett, at Cariboo Crossing and on an island in Lake Tagish, B.C.; later they were seen on Lake Marsh, Lat. 60° 15', in the Yukon district; after this none was seen until we reached the Alaska boundary, after this they were found at Circle City, Charlie Village and at the Aphoon, mouth of the Yukon, and at St. Michael. (*Bishop*.) From June to September of 1901 eight specimens in all were seen at Homer and Sheep Creek near the Kenai Mountains, Alaska. Found breeding on the low sandy spit at Homer. Its nest was well concealed in coarse grass. It was entirely covered and the entrance to the three nests examined was on the southern side. (*Chapman*.)

BREEDING NOTES.—A large suite of specimens was taken, a part of it, however, unintentionally, for it is not an easy matter to always distinguish between the Savanna sparrow and Baird's bunting at gunshot range; and when I have killed a bird I generally make a point of preserving it, even though it is not particularly wanted as a specimen in order that its life may not have been taken in vain. The nest is placed on the ground, simply built of dried grasses with a lining of horse hair; the eggs are four or five in number, in this locality usually laid in the first half of June. Like nearly all the fringilline birds of this region the Savanna sparrow is frequently the cow-bird's foster-parent, and in one instance that came under my observation, the nest contained two of the alien eggs. (*Coues*.) On June 18th, 1882, within a few feet of a straw-stack in the barnyard, where horses and cattle are continually running about, I found the nest of a Savanna sparrow, protected only by a tuft of prairie grass. It contained five eggs, and was composed of grass with a meagre lining of horse-hair, the whole being slightly sunk in the ground. (*Thompson-Seton*.) This is a very abundant species in Assiniboia and Alberta. Set of eggs usually four. Always breeds near

water, generally in old grass in a marsh or by a pool. Nest composed altogether of dried grass with a lining of finer grass and a little horse or other hair. (*Macoun.*)

MUSEUM SPECIMENS.

Forty-seven; seven at Indian Head, Assa., May, 1891; two at 12-Mile Lake, near Wood Mountain, Assa., June, 1895; two at Crane Lake, Assa., June 7th, 1894; one at Peace River Landing, Atha., June 16th, 1903; nine at Edmonton, Alta., May and June, 1897; two at Banff, Rocky Mountains, June, 1891; four at Revelstoke B.C., April, 1890; two at Penticton, B.C., April, 1903; two at the mouth of Salmon River, B.C., July, 1902; three at Agassiz, B.C., May, 1889; nine at Huntington, B.C., October, 1901, and four at Victoria, Vancouver Island, April, 1893, all by Mr. W. Spreadborough.

Four sets of eggs; one of four taken at Twelve-mile Lake, Assa., June 7th, 1895, by the writer; three sets of five eggs each, taken at Edmonton, Alta., on June 3rd and May 27th, 1897, by Mr. W. Spreadborough.

542. **Labrador Savanna Sparrow.**

Tasserulus sandwichensis labradoricus R. H. HOWE, JR.

Fairly common at Port Manvers, Lat. 57° northeastern Labrador during the last half of August and the first week of September, 1900. (*Witmer Stone.*)

CXCVIII. **CENTRONYX** BAIRD. 1858.545. **Baird's Sparrow.**

Centronyx bairdii (AUD.) BAIRD. 1874.

It is difficult to understand how this bird eluded observation for thirty years from the time of its original discovery by Audubon on the upper Missouri nearly to the present day. I did not meet with the species along the Red River itself, but found it as soon as I passed from the Pembina Mountains to the boundless prairies beyond. In some particular spots it outnumbered all the other birds together, and on an average through the country from the Pembina Mountain to the Mouse (Souris) River it was one of the trio of commonest birds. The skylarks and chestnut-collared longspur being the other two. (*Coues.*) An abundant

summer resident throughout the Assiniboine valley, wherever there are alkaline flats. In many parts of the prairies west of Birtle there are low flat alkaline stretches sparsely covered with long, wiry grass. Wherever the land is of this character Baird's bunting is sure to be a prominent if not a prevailing species. (*Thompson-Seton*.) One specimen secured the first time we went collecting at Grand Rapids of the Saskatchewan; shot on a high grassy plain between the fort and the lake. (*Nutting*.)

BREEDING NOTES.—I found a nest and four eggs of this bird as I was riding over the prairie near Crescent Lake, Assa., on June 3rd, 1901. On June 6th, while driving to Saltcoats marshes we flushed another Baird's sparrow off its nest containing five exceedingly handsome eggs. Nest on the ground at the side of the trail. June 7th I found another nest and five eggs, nest, like the other, made of dried grass, lined with hair, built on the ground in short grass. The eggs are like well blotched eggs of the vesper sparrow but are much smaller and averaging .75 x .55 inches. (*W. Raine*.)

CXCIX. **COTURNICULUS** BONAPARTE. 1838.

546. **Grasshopper Sparrow.**

Coturniculus savannarum passerinus (WILS.) RIDGW. 1885.

Said to occur in New Brunswick by Mr. Adams. (*Chamberlain*.) I am quite sure this species is at Scotch Lake, York Co., N.B., but have not secured a specimen. (*W. H. Moore*.)

There are two Toronto records, one in 1879, and the second in 1890. (*J. H. Fleming*.) Fairly common in the two southwestern counties of Ontario; but a rare summer resident near London; usually only one specimen observed in several years. (*W. E. Saunders*.)

MUSEUM SPECIMENS.

Two; taken at Hyde Park Corner, near London, Ont., in 1889, by W. E. Saunders.

546a. **Western Grasshopper Sparrow.**

Coturniculus savannarum bimaculatus (SWAINS.) RIDGW. 1901.

A summer resident near Vernon, B.C. (*Brooks*.)

CC. **AMMODRAMUS** SWAINSON. 1827.547. **Henslow's Sparrow.**

Ammodramus henslowii (AUD.) GRAY. 1849.

Thus far we have found this bird only near Sarnia, and at Jeannette's Creek, Ont.; but as about a dozen birds were observed altogether on four different occasions in two years I believe it is a fairly common summer resident in the western peninsula of Ontario wherever a favourable locality exists. The original discovery was made on May 24th, 1898, when several were noted at Jeannette's Creek and since then they have been found in the locality on two other occasions. This is the most inconspicuous bird I have ever met with; it runs through the grass like a mouse and does not rise until one is almost on it, when it makes a short zigzag flight and again conceals itself. (*W. E. Saunders.*) I was surprised to find this sparrow on Lake Joseph, Muskoka, and apparently breeding. I first noticed it on July 14th, 1902, in a hay-field about a mile from Port Sanfield, and for some days had every opportunity of watching the males as they sat on the fence and uttered their rather wheezy notes. Two more pairs were in one field, and I could find none in any of the few likely places elsewhere. (*J. H. Fleming* in *The Auk*, Vol. XIX., p. 403.)

548. **Leconte's Sparrow.**

Ammodramus leconteii (AUD.) GRAY. 1849.

A male specimen of this species was given to me as an Acadian sharp-tailed sparrow, taken May 5th, 1897, at Toronto, Ont.; this is the first record for Ontario. (*J. H. Ames* in *The Auk*, Vol. XIV., p. 411.)

The rediscovery of this little known and extremely interesting species in Dakota was made in the season of 1873 by the Boundary Commission. On the march between Turtle Mountain and the first crossing of the Mouse (Souris) River, I came upon what seemed to be a small colony of the birds in a moist depression of the prairie. I subsequently found the bird again and secured another specimen. (*Coues.*) This beautiful sparrow abounds in Manitoba wherever there are meadows that offer the right combinations of willow, scrub and sedgy grass, and has been taken by

myself on the west slope of Duck Mountain to the north of the province. (*Thompson-Seton*.) In June, 1896, this species was breeding in a marsh at Sewell, Manitoba. (*Macoun*.) First seen at Indian Head, Assa., May 12th, 1892, next seen June 23rd, when two nests were found; each nest contained five eggs; nest made of dried grass under a tuft on the ground. First seen at Edmonton, Alta., late in May, 1897; not common, only observed about a dozen altogether; breeding in wet ground; common on Bragg's Creek, about 40 miles from Calgary, June 28th, 1897; a few were breeding in a marsh at Peace River Landing, Atha., Lat. $56^{\circ} 15'$. June 1903; and one individual was seen west of the Grande Prairie in August. (*Spreadborough*.)

breeding notes.—On June 23rd, 1892, I found two nests of this species. Each nest contained five eggs. The nest was placed in old grass close to the ground, and was made of the same. The land was low but not wet. The female was shot as she left the nest. (*Spreadborough*.) In June, 1893, Mr. G. F. Dippie and myself were fortunate in discovering the nest and eggs of this species which were previously little known. This was at Raeburn, Man., since then I have found several more nests of Leconte's sparrow in Manitoba and Assiniboia, all were made of fine dry grass and nothing else and were invariably built in a tuft of marsh hay a few inches above the ground. The eggs are greenish-white speckled at the largest end with ashy-brown and are small, .65 x .50 inches. (*W. Raine*.) On June 12th, 1896, the writer was collecting in a swamp south of Sewell, on the Canadian Pacific Railway and came on the nest of a bird new to him. The following is from his notebook and evidently refers to this species. "In the open swamp I found another nest in the grass and was evidently permanent as *Menyanthes trifoliata* and *Calla palustris* grew close by. When the bird arose I thought it was a clay-coloured sparrow, but on looking into the nest saw four eggs about the same size as the sparrow's but the large end was completely covered with a deep shade of brown which shaded off into a lighter colour and became mottled with a lightish-green. Three eggs were as above, but one was much lighter in colour and hence more distinctly mottled. They were much incubated and were injured in blowing. I refer the eggs to Leconte's sparrow.

MUSEUM SPECIMENS.

Six ; two taken at Indian Head, Assa., May 10th, 1892, two at Edmonton, Alta., in May and June, 1897, and a pair at Peace River Landing, Atha., June 16th, 1903.

One set of four eggs taken at Indian Head, Assa., on June 23rd, 1892, by Mr. Spreadborough ; one set of four taken at Sewell, Man., June 12th, 1896, by Prof. Macoun.

549-1. Nelson's Sparrow.

Ammodramus nelsoni (ALLEN) NORTON. 1897.

There are several records for Toronto. Dr. Dwight says the Toronto birds are more *nelsoni* than *subvirgatus*, but not typical. (*J. H. Fleming.*) I took a very fine female on 28th October, 1896, at Toronto, and on the 17th November, Mr. I. Percival Turner took two, a male and female, at the same spot. On the 17th November, 1900, I visited the place again and saw two. (*J. Hughes-Samuel.*) On the 22nd September, 1894, near Toronto, Ont., I shot two individuals of this species ; on June 10th, 1895, I shot a female and in the autumns of 1896-97-98 I saw many others. (*C. W. Nash.*)

On my arrival at Winnipeg, Manitoba, Mr. Hine surprised me by producing a specimen of this form, shot at Winnipeg on May 25th, 1892. On June 30th, at Carberry, I heard a curious bird note and going over the slough to the spot, I put up two small dark-coloured sparrows. I obtained one which proved to be this form ; later in the day I took two more ; the above specimens were submitted to Mr. F. M. Chapman and pronounced true *nelsoni*. (*Thompson-Seton.*)

BREEDING NOTES.—On June 12th, 1893, Mr. Dippie and myself found this bird nesting at Long Lake, Manitoba. The nest and eggs I presented to the U. S. National Museum at Washington. On the 14th June, 1894, I again visited the locality and was fortunate in finding another nest and four eggs of Nelson's sparrow and the next day I took another set of five eggs. Nests were made of dried grass and built in a tuft of marsh hay a few inches from the ground. Their voice is like that of a grasshopper and they sing until long after sunset. (*W. Raine.*)

MUSEUM SPECIMENS.

Two eggs taken at Long Lake, Manitoba, in June, 1894, by Mr. W. Raine.

540. 1a. **Acadian Sharp-tailed Finch.**

Ammodramus nelsoni subvirgatus (Dwight) Norton. 1897.

Fairly common about the salt marshes at the mouths of the streams emptying into Minas Basin, King's Co., N.S., from June to October. (*H. Tufts.*) Possibly occurs in Nova Scotia. (*Downs.*) Several specimens taken in the vicinity of Hampton, N.B. (*Chamberlain.*) A nest of this [species was taken near Baddeck, Cape Breton Island, July, 26th, 1898; this species was not rare along the shore of the bay east of Baddeck. (*Macoun.*) A few birds in the salt marsh at Tignish, Prince Edward Island were the only ones I could discover, although I searched in many other localities. (*Dwight.*) Taken at St. Denis de Kamouraska, south shore of St. Lawrence, eastern Quebec; breeding in some numbers. (*Dionne.*) A casual visitor at Ottawa, Ont. One shot in 1882, identified by Dr. Coues. (*Ottawa Naturalist*, Vol. V.)

This form is peculiar to the fresh and salt water marshes of the Maritime Provinces of Canada, especially those bordering on the Bay of Fundy and the Gulf of St. Lawrence. Strangely enough it has never been taken in Nova Scotia, although it undoubtedly occurs there, for I have observed it within two or three miles of the boundary line when rambling over the meadows of the Petitcodiac River in New Brunswick, not far from the type locality. Since my discovery of the birds about ten years ago I have found them breeding at Tignish, Prince Edward Island, where they were recorded as *caudacutus* long before *subvirgatus* was separated by Brewster, at Bathurst, N.B., and at Rivière du Loup, Quebec, on the south shore of the St. Lawrence. They have also been found a few miles west of the last named place at Kamouraska by Dionne. West of this I have not found them, neither at L'Islet nor on the marshes between the city of Quebec and Ste. Anne de Beauré. Consequently there appears to be a wide gap between the headquarters of this form and those of *nelsoni*,—over one thousand miles. (*Dwight in The Auk*, Vol. XIII., p. 276.)

This species is tolerably common on low islands in the St. John River, in York Co., N.B. The spring migrants arrive in April, the first observed in 1903 was April 22nd, a week earlier than the

Savanna sparrow arrived. They run along among the grasses rather than take flight. The song is a low unattractive s-e-e-t s-k, emitted either from the ground or from an elevation. They feed about the margin of pools of still water where they seem to procure aquatic insects and grass seeds. Their colours blend most perfectly with such surroundings and it is only by persevering watchfulness that an observer may see them, unless they happen to take flight. The nests are built back from the water where there is no danger from an overflow and are fairly well concealed. The few nests observed have been built of dried grass blades throughout, the lining being composed of the finest material. One nest was a mere film of blades, scarce compact enough to lift from the depression where it was placed. It was built under the side of a log and contained five eggs which were very uniformly marked, there being three distinct varieties of colouring. A set now before the writer, taken May 27th, contains four eggs, .71 x .59, .80 x .58, .72 x .60, .72 x .59. The ground colour is pale greenish-blue marked with cinnamon-brown, umber and blue-gray. The first, third and fourth are so heavily marked as to obscure the ground colour, the second is much more finely and sparsely marked, and with the third most heavily marked about the large end. The nest was placed in a gully having a southern exposure, and was also well concealed by thick grasses. While the writer was walking across an island the bird flushed from under foot and flew quietly away without making the least attempt at alluring its disturber from the vicinity of the nest, nor did it return for some time. The male was not seen at all. The eggs were fresh, which fact probably accounted for the shyness of the birds. (*W. H. Moore.*)

MUSEUM SPECIMENS.

One specimen taken at Scotch Lake, N.B., Sept. 7th, 1901, by W. H. Moore.

One set of four eggs taken at Wolfville, King's Co., N. S., June 2nd, 1902, by Mr. R. W. Tufts. Nest made of grass placed among grass in a salt marsh.

CCI. **CHONDESTES.** SWAINSON. 1827.

552. **Lark Sparrow.**

Chondestes grammacus (SAY) BONAP. 1838.

One seen on Sable Island N.S. on Sept. 6th, 1902, and a number on October 10th. (*James Bouteillier.*)

This bird breeds regularly at Toronto; a nest was taken at the Humber, May 15th, 1899; it is very local and not abundant. (*J. H. Fleming.*) The first time I saw one of these birds taken at Toronto was in May, 1894, and I have met with them at intervals since—notably on May 24th, 1885, when I took a specimen and saw another. (*J. Hughes-Samuel.*) A few were regularly observed near London from 1878 till 1889, but none were observed from 1889 till 1900, when a pair spent the summer about ten miles from London, Ont. This species is a fairly common inhabitant of the western counties of Ontario, along the Lake Erie shore, but is rare and, of late, irregular near London. A single one was noted and watched for a short time near Sault Ste. Marie in September, 1880. (*W. E. Saunders.*)

552a. **Western Lark Sparrow.**

Chondestes grammacus strigatus (SWAINS.) RIDGW. 1880.

A common summer resident near Winnipeg; a few seen there June 3rd, 1896; one shot by Mr. Hine. The Winnipeg specimens may belong to the eastern form. (*Macoun.*) First saw two May 16th, 1894, at Medicine Hat, Assa., common by the 15th; I believe they breed here as I saw them up to the first week in June when I left; a few specimens seen the last week in May, 1895, at Old Wives' Creek, Assa.; not seen again until July 1st, when a pair was seen at Sucker Creek in the Cypress Hills; quite common in the Milk River valley below Pend d'Oreille, later a few were seen at Castellated Rocks higher up the river. (*Spreadborough.*) A very scarce summer visitant both east and west of the Coast Range, B.C. (*Brooks.*) Seen only at Vernon, B.C., where two pairs of adult birds were feeding their newly fledged young. (*Rhoads.*)

MUSEUM SPECIMENS.

Seven; six taken at Medicine Hat, Assa., May, 1894, and one taken at Old Wives' Creek, May 22nd, 1895, all by Mr. Spreadborough.

CCII. **ZONOTRICHIA** SWAINSON. 1831.

553. **Harris's Sparrow.**

Zonotrichia querula (NUTT.) GAMB. 1847.

A number of specimens, including adults of both sexes and young just from the nest, were collected, July 23rd to 30th, 1900,

at Fort Churchill, Hudson Bay, where the birds were common. They frequent the scattered patches of dwarfed spruce that grow in the small valleys and ravines intersecting the extensive expanse of precipitous ledges along the Churchill River in the vicinity of the post. They undoubtedly nest among these spruces but no nests attributable to this species were found. Several were seen on our return on the upper Hayes River, near the Robinson Portage and at the Echimamish, Keewatin. (*Prebles.*) A fine series of specimens of this handsome and interesting bird was secured at our Mouse River Depot, during the latter half of September and beginning of October. Its breeding grounds are as yet unknown. (*Coués.*) Abundant spring and fall migrant, frequenting thickets in Manitoba. (*Thompson-Seton.*) Specimen shot at Fort Pelly, August 29th, 1881; in flocks 50 miles west of Brandon on the road to Fort Ellice, Man. (*Macoun.*) Only three were seen at Indian Head, Assa., during three months residence in the spring of 1892, these were seen May 12th and 13th. (*Spreadborough.*) I took two individuals at Sumas, B.C., 10th January, 1895, and saw a third at Chilliwack, B.C. (*Brooks.*) Taken at Cadboro Bay near Victoria by A. H. Maynard, October, 1894; and another individual shot at Comox, November, 1894, by W. B. Anderson. (*Fannin.*)

BREEDING NOTES.—I have pleasure in recording the first authentic nest and eggs of this species. On June 11th, 1901, at Crescent Lake, Assa., I was fortunate in finding the nest in the root of a small willow at the edge of a bluff. The nest was made of grass and fine bark, lined with dry grass. The eggs are unlike those of any other sparrow. They are large for sparrows, averaging .88 x .68 inches, and are creamy white, spotted chiefly at the larger end with rusty brown and lilac and have a high polish. The parent bird was secured. This is the third species of sparrow found by me breeding in northwest Canada whose nest and eggs were previously unknown to science. (*W. Raine.*)

MUSEUM SPECIMEN.

One specimen taken at Indian Head, Assa., May 12th, 1892, by Mr. Spreadborough.

554. **White-crowned Sparrow.**

Zonotrichia leucophrys (FORST.) SWAINS. 1831.

Seems to be confined to southern Greenland; not numerous but certainly a breeding bird, though its nest has not yet been

found in the country. (*Arct. Man.*) Very plentiful throughout eastern Labrador; breeds abundantly at Fort Chimo. (*Packard.*) Not observed on James Bay until a short distance north of Fort George when they became common; very abundant from Richmond Gulf across Ungava to Fort Chimo. (*Spreadborough.*) Two specimens taken at Chateau Bay, Labrador, July 14th, 1891. (*Norton.*) A common summer resident in Newfoundland. (*Reeks.*) The most abundant land bird in northeastern Labrador; common wherever there was any spruce scrub. (*Bigelow.*) I have six nests and eggs of this bird taken at Nachvak and Whale River, Ungava. (*W. Raine.*) A very common summer resident in New Brunswick; occurs more frequently at Grand Manan during migration. (*Chamberlain.*) A tolerably common spring and autumn migrant at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Common at Lake Mistassini, northern Quebec. (*J. M. Macoun.*) Taken at Beauport; summer migrant in eastern Quebec. (*Dionne.*) A scarce transient visitor at Montreal, both in spring and autumn. (*Wittle.*) First seen at York Factory, Hudson Bay where it was abundant and where a small series, including old of both sexes, and young just from the nest, was taken, July 12th to 14th. About the post at Churchill it was extremely abundant July 23rd to 30th, but after passing north of that point we saw no more until our return when ascending Hayes River. (*Probles.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) Fort Churchill, Hudson Bay. (*Clarke.*) A common migrant in spring and fall at Ottawa. (*Ottawa Naturalist*, Vol. V.) A sparrow that I have never seen in Ontario in summer; neither did I observe it in June or July on the Magdalen Islands. It commonly arrives in Ontario about the 15th of May, and is plentiful by the 19th. It is very tame, frequenting wood-piles and brush-heaps. In the fall I have seen it on Wolfe Island, near Kingston, in September, but it is not so familiar a bird at that season. (*Rev. C. J. Young.*) A fairly common migrant in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Transient visitant at Penetanguishene, Ont.; not very common. (*A. F. Young.*)

A summer migrant in Manitoba, probably breeding in the northeastern region. (*Thompson-Scton.*) Only seen at Indian Head as a migrant between the 9th and 20th May. They were quite common for some time. First seen on May 4th at Medicine Hat,

Assa.; they were common by the 9th, but were all gone by the 15th. On June 24th of the same year they were common in all the brush on the east end of the Cypress Hills and were certainly breeding. First seen at Edmonton, Alta., May 7th, 1897; none seen after the 9th. All were migrants. (*Spreadborough.*) First noticed in numbers at Prince Albert, Sask., last spring (1899). Probably common but irregular in its visits. (*Coubeaux.*) This species is a northern bird and breeds in all parts of the Northwest Territories, arriving about the middle of May and leaving early in September. (*Richardson.*) North to Fort Resolution on Great Slave Lake; rare. (*Ross.*)

MUSEUM SPECIMENS.

Three; one taken at Wood Mountain, Assa., June, 1895, one at Medicine Hat, Assa., May, 1894, and one at Banff, Rocky Mountains, May, 1891, all by Mr. Spreadborough.

Eggs; seven sets; four sets of four each taken at Whale River, Ungava, in June, 1896, by G. Bouchier; one set of four taken at Fort Chimo, Ungava, in June, 1894, by G. Bouchier; one set of four taken at Nachvak, Labrador, in June, 1896, by J. Geer; one set of three taken on an island in James Bay, June 23rd, 1896, by Mr. Spreadborough.

554a. **Gambel's Sparrow.**

Zonotrichia leucophrys gambelii RIDGW. 1899.

I was surprised to find that the white-crowned sparrows of the Mouse (Souris) River were the variety instead of typical *leucophrys*, but such was the case, as shown beyond question by some of the specimens taken with perfect head-dress; found also in the Rocky Mountains in the autumn where they possibly breed. (*Coues.*) North to Lapierre's House on the Mackenzie River. (*Ross.*) This was common as a migrant at Indian Head in 1892, and at Medicine Hat, Assa., in May, 1894. About forty miles southwest of Calgary this species was rather common. A nest was taken June 28th having five fresh eggs, placed at the root of a clump of willows; on Moose Mountain, at 6,000 feet altitude, found a nest with six fresh eggs, the same day another nest was taken at 7,500 feet, containing three young and two eggs; common in the foothills from Calgary south to Crow's Nest Pass; common from Prairie Creek, Alta.,

to the Henry House, 1898; very common and breeding at Banff, Rocky Mountains, in 1891; first seen April 23rd at Penticton, Lake Okanagan, B. C., where they became common; very abundant at Revelstoke, B. C., in April, 1890; one seen at Trail near the 49th parallel, 1902, nearly all the specimens taken were males; in May many were breeding in burnt woods all around the town; rather common at Sicamous, B. C., in July, 1889, and at Kamloops and Spence's Bridge also. (*Spreadborough.*) Two were seen at Lake Okanagan, B. C., December 16th, 1898. Common migrant at Chilliwack, B. C. (*Brooks.*) During migration this race is sparingly scattered as far west as Vancouver Island, where I took two specimens. It becomes more frequent on the western slope of the Coast Range, and in the interior I found it breeding at higher latitudes and altitudes. (*Rhoads.*) Rare spring and fall migrant in British Columbia. (*Streator.*) I found this bird very common east of the Coast Range. (*Fannin.*) Descending from the bleak snow-covered rocks of White Pass we reached Portage on June 14th, a country of more luxuriant vegetation. Here this sparrow appeared and continued with us to Circle City, Alaska. (*Bishop.*) Everywhere in Alaska, the presence of bushes and timber is an almost certain indication of this bird's presence in summer. (*Nelson.*) This species is quite abundant among the alder patches on all parts of the island of St. Michael and breeds in considerable numbers. (*Turner.*) This bird occurs at Point Barrow only as a straggler. Only a single individual was taken. (*Murdoch.*) Occasionally seen on the high grounds of Kenai Mountains, Alaska, a few hundred feet above timber line. (*Chapman.*) A few of Gambel's sparrows were observed in the vicinity of Cape Blossom, Kotzebue Sound, in July. They were always seen in brush patches or at their borders, just as is the case in winter in southern California. (*Grinnell.*) One female specimen taken at Point Barrow, Alaska, is typical in every way. (*Witmer Stone.*)

BREEDING NOTES.—The following spring the arrival of Gambel's sparrow, as indicated by its beautiful song, was in the evening of May 21st, and the species soon became common. The song is a clear sad strain of five syllables, and with rising inflection. In the Kowak delta on the 11th June, I obtained a set of six eggs in which incubation had commenced. The nest was sunk

into a hummock of moss on the ground under some alder bushes on a hillside. A clump of dead grass partly concealed it from view. It consisted of dry grasses, lined with finer grass and black rootlets. The eggs are pale Nile blue, rather evenly covered with irregularly-outlined spots of chocolate and vinaceous. They are ovate, and measure .83 x .63, .81 x .62, .86 x .63, .85 x .64, .83 x .62, and .76 x .60, the latter being a runt egg. (*Grimmell.*)

The intermediate sparrow breeds in great numbers in the wooded sections of Anderson district. The nests were nearly always placed on the ground, in the tufts or tussocks of grass, clumps of Labrador tea (*Ledum palustre*), and amid stunted willows. They were composed of fine hay and lined with deer hair, occasionally mixed with a few feathers. Several were made entirely of the finer grasses. The usual number of eggs was four, but a lot contained as many as five and six. Upwards of one hundred nests were collected in the region referred to. (*Macfarlane.*) On June 13th, 1893, at Banff, Rocky Mountains, I came across a nest and five eggs of this species; it was built at the side of a grassy mound and made of dried grass lined with hair. At Peel River, Arctic America, on June 2nd, 1898, Rev. C. E. Whittaker found a nest and four eggs built in a patch of moss on the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-seven; four taken at Indian Head, Assa., in September, 1891; three at Medicine Hat, Assa., in May, 1894; one at Edmonton, Alta., May 8th, 1897, and one on Bragg's Creek, below Calgary, June 28th, 1897; one at Banff, Rocky Mountains, May, 1891; six at Revelstoke, B.C., April, 1890; one at Spence's Bridge, B.C., May, 1889; ten at Penticton, B.C., in April and May, 1903, all by Mr. W. Spreadborough.

554b. Nuttall's Sparrow.

Zonotrichia leucophrys nuttalli RIDGWAY. 1899.

Common about the prairies and open timbered spots. (*Lord.*) West of the Coast Range, especially on the coast; this is the most abundant small bird in the neighbourhood of Victoria. (*Fannin.*) Rare migrant at Chilliwack. (*Brooks.*) Taken at Agassiz and Yale in May, 1889; observed five at the mouth of Tami Hy Creek,

Chilliwack valley; very abundant at Huntington, B.C., on Sept. 9th, 1901, feeding on thistle seed; first seen on April 10th, at Victoria, but common by April 17th, 1893; nest found May 11th on the ground, made of dry grass, lined with hair and containing three eggs; a summer resident on all parts of Vancouver Island, they do not appear to be common at Comox. (*Spreadborough.*) A very common species on Vancouver Island; it was abundant on roadsides and in fields at Salt Spring Island and Comox in May, 1887. (*Macoun.*) A very abundant summer resident on the coasts of British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Nine; five taken at Huntington, B.C., in September, 1901; four on Vancouver Island in April, 1893, all by Mr. Spreadborough.

One set of five eggs taken on Beacon Hill, Victoria, Vancouver Island, May 16th, 1890, by Mr. J. Fannin.

557. **Golden-crowned Sparrow.**

Zonotrichia coronata (PALL.) BAIRD. 1858.

Common about the prairies and open timbered spots. (*Lord.*) A very abundant spring and fall migrant. (*Streator.*) An abundant summer resident. (*Fannin.*) Not common; migrating in the lower Fraser valley; breeds on the mountain tops at timber line. (*Brooks.*) Quite rare at Hastings, Agassiz, and Vancouver in April, 1889; not rare on Vancouver Island at Victoria in spring, seen for the first time April 27th, in 1893, by May 9th they had disappeared. (*Spreadborough.*) Abundant at Salt Spring Island and Comox in May, 1887. (*Macoun.*) In abundant flocks during our stay at Goldstream, Vancouver Island. I am inclined to doubt Mr. Fannin's statement that they are resident on Vancouver Island and would restrict their southern range in summer to the Queen Charlotte Islands. (*Rhoads.*) At English Bay, near Vancouver City saw a flock of nearly 100 May 4th, 1890; very common on Sumas prairie in October of the same year. (*E. F. G. White.*)

A few of these sparrows were seen and heard on August 21st in brush among spruces back of our camp on the Kowak River, Kotzebue Sound. They were not common at any time. (*Grinnell.*) Common in the low, second growth brush about the village of Hope, Cook's Inlet, Alaska; also occasionally seen on the moun-

tains there. (*Osgood*.) This sparrow was found on the heights above Glacier near Skagway and was common at White Pass summit and continued to Portage, B.C. A nest almost finished was found in a conifer at Summit Lake, June 12th. (*Bishop*.) Seen at Kenai Mountains and at Homer, Alaska. Was not seen until late summer at Homer when it became very common. (*Chapman*.) The last of May, from the 25th to the 30th, it arrives in the vicinity of St. Michael, and breeds sparingly along the Behring Sea coast of the territory, and more rarely on the shores of Kotzebue Sound. From the peninsula of Alaska south to Puget Sound it is a common summer resident; its range extends beyond the Arctic Circle. (*Nelson*.) A pair of these birds was shot in June, 1876, on the western end of Whale Island, near St. Michael; they are not common in the interior. (*Turner*.)

MUSEUM SPECIMENS.

Four; three taken at Victoria, Vancouver Island in April 1893; one taken at Hastings, Burrard Inlet, B.C., April 24th, 1889, all by Mr. Spreadborough.

558. **White-throated Sparrow.**

Zonotrichia albicollis (GMEL.) SWAINS, 1837.

Reported by Stearns as common and breeding in southern Labrador; Audubon states that this species is common, and that they saw young late in July; Drexler obtained this species at Moose Factory on May 31st, 1860; Verrill reports this species as far the most common singing bird on Anticosti. (*Packard*.) Two specimens taken at Chateau Bay, Labrador, July 14th, 1891. (*Norton*.) A common summer migrant in Newfoundland. (*Reeks*.) Fairly common along the Humber River, Newfoundland, 1899. (*Louis H. Porter*.)

An abundant summer resident in Nova Scotia. (*Dovens*.) Not uncommon on Sable Island in the spring and autumn of 1902. (*James Bouteillier*.) Common at Baddeck and Margaree, Cape Breton Island, N. S., July, 1898; not uncommon at Brackley Beach, Prince Edward Island, nests taken June, 1888. (*Macoun*.) This bird so characteristic of the Canadian fauna, is less abundant than the ubiquitous juncos, but on account of its loud and striking song is far better known to the average inhabitant of Prince

Edward Island. (*Dwight.*) Breeding abundantly at Sydney, Cape Breton Island. (*C. R. Harte.*) Common from May to October at Wolfville, King's Co., N.S. (*H. Tufts.*)

A common summer resident in New Brunswick. (*Chamberlain.*) An abundant summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Abundant in the Restigouche valley, N.B. (*Brittain & Cox.*) Common on the Magdalen Islands; nesting about the last of June. (*Bishop.*) Everywhere about the Gulf of St. Lawrence, save on the wind-swept Magdalens, this bird was an abundant species. (*Brewster.*) Common at Lake Mistassini in northern Quebec. (*J. M. Macoun.*) Taken at Beauport; a common resident in eastern Quebec. (*Dionne.*) A common summer resident at Montreal. Breeds in Mount Royal Park. Observed here from April 24th to October 30th. (*Wintle.*)

A common summer resident at Ottawa and breeding. (*Ottawa Naturalist*, Vol. V.) A common summer migrant in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) A very common summer resident at Guelph, Ont. Arriving about April 20th and leaving about October 30th. (*A. B. Klugh.*) Abundant everywhere in Algonquin Park, Ont.; found a nest on the ground in a bunch of grass, July 15th, 1900; eggs quite fresh. (*Spreadborough.*) A common migrant but a rare breeder at London; found only in openings in deep cedar swamps. Forty miles north of London and in the Bruce peninsula it is quite common. (*W. E. Saunders.*) A common summer resident at Penetanguishene, keeping well to the deep swamps and probably breeds as they remain throughout the summer. (*A. F. Young.*) Common along the Moose River to Moose Factory, James Bay; none seen further north. (*Spreadborough.*) Abundant throughout the region between Norway House and York Factory, Hudson Bay. It was especially numerous in the extensive tracts which had been devastated by fire. A few were noted, one of which was collected at York Factory in July, 1900; on our return trip a few were seen at Oxford Lake, September 11th. (*Prebles.*) Fort Churchill, Hudson Bay. (*Clarke.*)

A common summer resident in woodlands in Manitoba; found breeding at Carberry, Shell River, Little Boggy Creek and Duck Mountain. (*Thompson-Seton.*) Only seen at Indian Head, Assa., between the 9th and 20th May, 1892, when they all migrated to the north; a few were observed at Moose Jaw and Old Wives' Creek,

Assa., in May, 1895, but they soon disappeared. (*Spreadborough.*) One of the most abundant birds at Grand Rapids of the Saskatchewan; it breeds there in great numbers. (*Nutting.*) This species reaches the Saskatchewan about the middle of May, and spreads throughout the Northwest Territories up to Lat. 66° to breed. (*Richardson.*) North to Fort Simpson on the Mackenzie River; rare. (*Ross.*) First seen May 7th, 1888, near Calgary; common from there to Edmonton and Athabasca Landing and up to Little Slave River, down the Athabasca to Clearwater River, and up that river to Methye Portage and thence to Isle à la Crosse; it is the chief bird of the whole region. (*J. M. Macoun.*) First seen at Edmonton, Alta., May 6th, 1897. Shortly after they became common and remained to breed. Abundant from Lesser Slave Lake to Peace River Landing, Atha., Lat. $56^{\circ} 15'$, in June, 1903; observed from Edmonton to the Pembina River in June, 1898. (*Spreadborough.*)

BREEDING NOTES.—Nest on ground among bushes, composed of grass, weed stems and moss, lined with rootlets and fine grass. Eggs 4, dull white, spots and splashes of brown and lavender. (*G. R. White.*) I have observed that this bird is sparingly distributed throughout eastern Ontario through the summer. In June, 1888, I found two nests on the rocky ground, two miles west of the village of Renfrew, Ont., one in a small thick bush, the other among grass, etc., on the ground. During ten years I observed one pair close to Lansdowne, Ont., that by their manner had young, though I did not succeed in finding the nest. I saw one bird on the Magdalen Islands and have seen two nests taken in 1899 near Mingan, Que., where it commonly breeds. (*Rev. C. J. Young.*) I found a nest of this bird May 24th, 1886, in the park, built in the roots of an up-turned tree stump, containing four eggs, and another nest May 30th, 1891, at Hochelaga woods containing three eggs, built on the ground in a tussock of grass. (*Wintle.*) I took a nest near Sand Lake on May 25th, 1897. It was placed under some dead ferns on the flat, grassy bank of a stream, and was lined with moose hair; there were four eggs in the set. I took a nest some years ago at Rosseau, built about three feet up in a raspberry bush. (*J. H. Fleming.*) On June 8th, 1893, I found a nest and eggs at Long Lake, Manitoba; June 19th, 1901, I found two nests at Carleton Junction, 40 miles west of Ottawa. One nest was on the ground, the other in a brush heap some distance

above the ground. (*W. Raine.*) The nesting season of this species is from May to August; eggs from three to five in a set placed in a snugly built nest of grasses, lined with finer grasses and hair, placed in brush or on the ground and well concealed; the birds show much anxiety when one approaches the nest. The young when fledged do not show white on the head or throat. (*W. H. Moore*) Near Ottawa and at Lake Nomingue, 100 miles north of it. The nest is found in woods, under branches, in a bed of green moss or sometimes in a bush. It is built of coarse grasses, rotten wood, dried leaves and usually green moss. The lining is fine grass or hairs. The set is of three or four eggs laid in June or July. (*Garneau.*) In June, 1903, two nests of this species were found by the writer in a swampy thicket near Ottawa; one was in a clump of dead *Carex* stems (*Carex riparia*) and the other in a very old brush-heap. (*Macoun.*)

MUSEUM SPECIMENS.

Ten; one purchased with the Holman collection in 1885; one taken at Ottawa in May, 1886, by Mr. E. F. G. White; three taken at Ottawa by Mr. F. A. Saunders in September, 1890; three taken at Ottawa in May, 1888, by Prof. Macoun; two by Mr. W. Spreadborough at Edmonton, Alta., in May, 1897.

One set of four eggs taken at Wolfville, N.S., June 12th, 1894, by Mr. Tufts.

CCIII. **SPIZELLA** BONAPARTE. 1832.559. **Tree Sparrow.**

Spizella monticola (GMEL.) BAIRD. 1858.

Common throughout Labrador. Breeds plentifully at Fort Chimo, where eggs and nests were taken. (*Packard.*) None seen on James Bay until a little north of Fort George when they became common. Very abundant across Ungava from Richmond Gulf to Fort Chimo in the summer of 1896. (*Spreadborough.*) Rather uncommon in northeastern Labrador, but widely distributed. I observed a good many at Port Manvers, Lat. 57°. (*Bigelow.*) A common winter visitor in Nova Scotia. (*Downs.*) Fairly common in winter at Wolfville, King's Co., N.S. (*H. Tufts.*) A regular winter visitor in New Brunswick. (*Chamberlain.*) A winter visitor at Scotch Lake, York Co., N.B.; tolerably common in some localities. (*W. H. Moore.*) Two seen at Parrsboro, N.S.,

in company with three slate-colored juncos on Jan. 25th, 1899. (*Morrell.*) Quite common at Lake Mistassini, northern Quebec, breeding in 1885. (*J. M. Macoun.*) Taken at Beauport; a winter visitor in eastern Quebec. (*Dionne.*) A transient but common visitant at Montreal; observed here in spring from April 7th to 28th, and in the autumn from October 25th to November 7th. (*Wintle.*)

A common migrant in spring and fall at Ottawa. (*Ottawa Naturalist*, Vol. V.) A northern breeder, common in Ontario in the early spring, where it is one of the first birds to come. (*Rev. C. J. Young.*) A regular winter resident in the Parry Sound and Muskoka districts; common at Sand Lake in October, 1900. (*J. H. Fleming.*) A common migrant at London, Ont.; a few are found most winters in sheltered places. (*W. E. Saunders.*) Winter visitor at Guelph, Ont. (*A. B. Klugh.*) A rare and transient visitor at Penetanguishene, Ont. (*A. F. Young.*)

No tree sparrows were observed in summer during either season, (1873-74) and I think none breed as far south as this. They appear in numbers with the general migration which brings the northern fringillines, and which reaches this latitude about the 1st of October. (*Coues.*) Abundant migrant in Manitoba, frequenting thickets. It commonly frequents thick copses rather than trees, and its general habits would entitle it to be called scrub sparrow rather than tree sparrow. (*Thompson-Scton.*) First seen at York Factory Hudson Bay, where the species was rather common, and a young bird not long from the nest was taken July 12th, 1900. It was abundant at Fort Churchill July 24th to 30th, and we took a series at that point. Many were noted on the "barren grounds," 50 miles south of Cape Eskimo, August 4th to 8th. On our return trip several were seen at Duck Point, Playgreen Lake. (*Prebles.*) Fort Churchill, Hudson Bay. (*Clarke.*)

MUSEUM SPECIMENS.

Four; three taken in Ottawa in April and November, 1890, by Mr. F. A. Saunders; one taken at London, Ont., 27th October, 1885, by Mr. W. E. Saunders.

Four sets of eggs; two of four and one of five eggs taken at Whale River, Hudson Bay, in June, 1898, by Mr. J. E. Edmunds; one set of four taken at Fort Chimo, Ungava, in June, 1896, by Mr. G. Bouchier.

559a. **Western Tree Sparrow.***Spizella monticola ochracea* BREWST. 1882.

Very common in the spring at Indian Head, Assa.; first seen at Medicine Hat, Assa., April 10th, 1894, and all were gone by the 18th; rare at Edmonton, Alta., in April, 1897; the bulk of the migration had passed before I reached there; a few observed at Lesser Slave Lake, and one individual at Peace River Landing in Lat. $56^{\circ} 15'$ in June, 1903; rather common at Penticton, B.C., early in April, 1903; quite common at Revelstoke, B.C., in April, 1891, feeding on the ground up to April 17th, when they disappeared; from the crossing of the McLeod River, October 6th, 1898, to Edmonton, Alta., the species was common, evidently passing south. (*Spreadborough.*) Common at Athabasca Landing, 90 miles from Edmonton, May 24th, 1888. (*J. M. Macoun.*)

This little bird arrives in small flocks on the Saskatchewan in the third week in April, and after a short halt proceeds further north to breed. (*Richardson.*) North to Lapierre's House on the Mackenzie River; abundant. (*Ross.*) This is perhaps the most abundant sparrow found breeding in the valley of Anderson River, as is evidenced by the number of nests, two hundred and sixteen, secured. Most of them were found on the ground and others on dwarf willows at a height of one to four feet. Four and five eggs and sometimes as many as six and seven appeared to be the complement. (*Macfarlane.*)

Regular summer visitor. (*Lord.*) Migrant; not common at Chilliwack; a few stay all winter at Lake Okanagan, B.C.; a few bred at Barkerville, Cariboo district, B.C., 1901. (*Brooks.*) Taken on Vancouver Island by A. H. Maynard. (*Fannin.*) At Haine's Mission, Lynn Canal, I took a female June 2nd, 1899. At Cariboo Crossing, Lat. 60° , B.C., we took two pairs June 29th, one of them with a nest containing three fresh eggs. The nest was buried in moss at the foot of a clump of willows in a willow swamp near the lake; it was composed of fine dry grasses, lined with feathers covered externally with a thick coating of living moss. It was occasionally seen the whole length of the Yukon River to St. Michael. (*Bishop.*) The western tree sparrow was numerous at Cape Blossom, Kotzebue Sound, Alaska. The patches of stunted willow and alder back among the hills seemed to be particularly favoured by this species, and in such localities full-

fledged young and moulting adults were found in the latter part of July. (*Grinnell*.) This species is very common, especially along the coast of Behring Sea, and of all the birds that frequent bushes this is the most common to the north. (*Nelson*.) This species arrives at St. Michael and remains about two and one-half months. It breeds in the alder thickets that skirt the small lakes and low grounds. It is quite common. (*Turner*.) One specimen taken at Homer, Kenai Peninsula, Alaska, September 8th, 1901. (*Chapman*.)

BREEDING NOTES.—In the Kowak delta on the 14th and 15th of June I took a set of five and one of six slightly incubated eggs, respectively. The two nests were similarly placed in the tops of clumps of grass at the edge of a marsh about six inches above the water. The nest proper consists of closely-matted broad dry grass blades and stems, while the lining is entirely of white ptarmigan feathers, though not one shows above the rim. The deeply cup-shaped cavity is thus pure white, though when the bird was sitting she entirely concealed it. The internal diameter of the nest is 2.00, depth, 1.90; external diameter, 4.80, depth, 2.60. The ground colour of the egg is very pale blue. The set of six is quite uniformly and thickly spotted with liver-brown and vinaceous tints. One egg of the set of five is like them, but the others are wreathed at the large ends with confluent markings of the same colours, while the rest of the surface is very finely dotted and blurred with a pale brown tint; so as to nearly obscure the ground colour. The eleven eggs average .74 x .57. (*Joseph Grinnell*.) I have several sets of eggs from the Mackenzie delta; a nest and five eggs was found by Rev. C.E. Whittaker on June 18th, 1900 at Peel River; another nest with five eggs was found at the foothills of the Black Mountains by Mr. Stringer on June 13th, 1899; another clutch of four eggs was found, west side of Mackenzie delta by Mr. Stringer on June 8th, 1899; the nests are made of dried grass warmly lined with feathers and were built on mossy knolls on the ground. (*W. Raine*.)

MUSEUM SPECIMENS.

Fifteen; five taken at Indian Head, Assa., in April, 1892, and September, 1891; four at Medicine Hat, Assa., in April, 1894; four at Revelstoke, B.C., in April, 1890, and two at Penticton, B.C., April 9th, 1903; all by Mr. Spreadborough.

560. Chipping Sparrow.

Spizella socialis (WILS.) BONAP. 1838.

A common summer migrant in Newfoundland. (*Reeks.*) Common summer resident in Nova Scotia. (*Downs.*) Common at Sydney, Cape Breton Island. (*C. R. Hart.*) Very common from May to September at Wolfville, King's Co., N.S. (*H. Tufts.*) Common at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898; quite common at Brackley Point, Prince Edward Island, June, 1888. (*Macoun.*) Not a common species and only occasionally observed on Prince Edward Island. (*Dwight.*) A common summer resident in New Brunswick. (*Chamberlain.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare in the Restigouche valley; only seen in the neighbourhood of Campbellton, N.B. (*Brittain & Cox.*) Seen only at Gaspé, Quebec, where it was common. (*Brewster.*) Common in eastern Quebec, in summer. (*Dionne.*) An abundant summer resident at Montreal. Breeds in the city and in Mount Royal park. I have found their nests with eggs from May 21st to July 22nd, and have observed this sociable little bird here from April 23rd to September 28th. (*Wintle.*)

A common summer resident in and around Ottawa; breeds in the city. (*Ottawa Naturalist*, Vol. V.) Very common everywhere in Ontario. (*Rev. C. J. Young.*) A common summer resident in Parry Sound and Muskoka districts; usually breeding about the settlements. (*J. H. Fleming.*) Abundant summer resident at Guelph, Ont.; arrives about April 20th and leaves about October 20th. (*A. B. Klugh.*) A pair bred near the buildings at Cliche Lake, Algonquin Park, Ont., June, 1900. (*Spreadborough.*) A breeding summer resident at Penetanguishene, Ont. (*A. F. Young.*) Much less common in the city of London, Ont., than it was 20 years ago; but still fairly common over the whole country. (*W. E. Saunders.*) One observed at God Lake, Moose River, May 30th, 1896; common at Moose Factory, June 9th; none seen further north. (*Spreadborough.*) A few chipping sparrows were seen about the post at Norway House, one of which was collected. We also met with them about the buildings at Oxford House and saw one or two on an island in Knee Lake, July, 5th, 1900; none seen further north. (*Prebles.*)

Specimens of this very common and familiar species were taken in the Rocky Mountains, and it was observed at other points

where none were secured. (*Coues.*) This species is quite rare in Manitoba. The earliest record I have is April 10th, 1882, but this was the only one seen at the time, and it was fully two weeks before others appeared. I found one nest in a little spruce tree, but was too late as the birds had flown. The nest is almost invariably lined with horse hair, whence the other common name "hair bird." (*Thompson-Seton.*) Very abundant both at Grand Rapids and Chemawawin, North Saskatchewan River, at the latter place they were feeding largely on the seeds of aquatic plants on the margin of the slough east of the village. (*Nutting.*) Not common at Indian Head, Assa., in the spring of 1892; first seen at Medicine Hat, Assa., May 9th, 1894, after that they became common, but decreased in numbers towards the end of the month; in 1895 none were seen until we reached Milk River late in July; they were in profusion at Pend d'Orielle, at Castellated Rocks, St. Mary's River and Waterton Lake, foothills of Rocky Mountains; a very common resident at Edmonton and southward in foothills to Crow's Nest Pass; saw one individual at the crossing of McLeod River, June 19th, 1898; common at Jasper Lake, Yellowhead Pass, July 2nd; common from Lesser Slave Lake to Peace River Landing, Atha., Lat. $56^{\circ} 15'$; in June, 1903. (*Spreadborough.*) Abundant along the trail between Edmonton and Athabasca Landing, but rather rare on the Athabasca; common up the Clearwater River and between Methye Portage and Isle à la Crosse. (*J. M. Macoun.*) Not uncommon but much less abundant than the tree sparrow around Prince Albert, Sask.; breeding in the region. (*Coubeaux.*) North to Fort Simpson on the Mackenzie River; abundant. (*Ross.*) Several specimens of this sparrow were obtained from Fort Yukon in June, 1876. (*Turner.*) I would refer all British Columbia specimens collected by myself and Mr. Streater, including those from the coast, to *socialis* with the exception possibly of six skins collected at Ashcroft. (*Rhoads.*) Common at Donald on the Columbia River, B.C., May 20th, 1894. (*E. F. G. White.*)

BREEDING NOTES.—Nesting in low trees and shrubs; quite common around Ottawa. Nest composed of fine dried grass lined with hair. Eggs, four or five. Bluish, speckled with blackish-brown and purple. (*G. R. White.*) With us from last of April to October. The nests are built in apple trees or small spruces, and made of grasses lined with hair. The eggs number

from three to five. One summer some nests were found to have their eggs broken in them. It was some time before I could find out the cause. At last one morning, when sitting in view of a nest on an apple tree, a fine male of this species was seen to deliberately pick a hole in the shell of an egg and drink its contents. I then surmised that it was this bird that was doing all on the mischief. (*W. H. Moore.*) This species nests in bushes or on the middle branches of large trees at Ottawa. The nest is composed of rootlets and lined with hairs. (*Garneau.*)

MUSEUM SPECIMENS.

Seven; two taken at Ottawa in September, 1891, by Mr. F. A. Saunders; one at Ottawa in May, 1888, by Prof. Macoun; one at London, Ont., by Mr. W. E. Saunders, May 4th, 1885; three taken at Medicine Hat, Assa., in May, 1894, by Mr. Spreadborough.

Two sets of four eggs each, taken at Ottawa on May 31st and 24th, 1899, by Mr. A. L. Gameau.

560a. **Western Chipping Sparrow.**

Spizella socialis arizonæ COUES. 1872.

Regular summer visitor in British Columbia. (*Lord.*) Found only in the interior, where it breeds abundantly. (*Streator.*) An abundant summer resident east and west of the Coast Range; breeds in the neighborhood of Victoria. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Six skins taken at Ashcroft, B.C., are considered intermediate between this and the eastern form. (*Rhoads.*) This species found to be common at Banff and breeding in the summer of 1891; not uncommon at Revelstoke and in Eagle Pass in May, 1890; further down the Columbia River at Deer Park and Robson it was quite common and seemed to increase to the south; quite common at Kamloops and Spence's Bridge in 1889; observed several individuals at Chilliwack, B.C., in the spring of 1901; a few seen at Penticton in April, 1903; first seen at Victoria, Vancouver Island, April 26th, 1893, quite common by May 9th; an abundant summer resident at Victoria, Nanaimo and Comox. (*Spreadborough.*)

BREEDING NOTES.—Common summer resident near the International Boundary at Trail, B.C.; found a nest and three eggs June 5th, 1902, in a small bush about 18 inches from the ground,

made of dried grass and lined with hair. (*Spreadborough.*) We found this species daily from Log Cabin on the White Pass to Dawson on the Yukon, Lat. $64^{\circ} 15'$, between June 15th and August 1st, 1899. We found a nest with four eggs at Lake Bennett, June 24th. Large young in a nest on Tagish Lake, June 30th. Young able to fly were met with at Marsh Lake, July 5th, and a set of three eggs on Thirty-mile River, July 18th. The nests were in small spruces, one, four inches, the other three feet from the ground. Gambel's sparrow, slate-coloured junco and this species are, in point of numbers, the commonest sparrows on the Yukon River. (*Bishop.*)

MUSEUM SPECIMENS.

Seventeen; one taken at Canmore, Alta., May 25th, 1891; one at Revelstoke, B.C., May 7th, 1890; one at Deer Park, Columbia River, B.C., June 6th, 1890; six at Trail, near the International Boundary, B.C., in May, 1902; one at Spence's Bridge, B.C., May 29th, 1889; one at Agassiz, B.C., May 9th, 1889, one at Hastings, Burrard Inlet, B.C., April 23rd, 1889; four at Victoria, Vancouver Island, in May, 1893, and one at Penticton, B.C., April, 1903, all by Mr. Spreadborough.

561. Clay-Coloured Sparrow.

Spizella pallida (SWAINS.) BONAP. 1838.

On May 9th, 1894, while hunting in a field of small shrubs about 15 miles west of London, Ont., I saw a small sparrow sitting on the top twig of a shrub, after the manner of the field sparrow and saw him give a note whose author I was looking for. It proved to be a *Spizella pallida*, the first recorded, I believe, in our province, though they may yet be found inhabiting the northwestern extremity, next to Manitoba. (*W. E. Saunders.*) The western meadow lark, Brewer's blackbird and the present species were the chief birds I observed at Pembina to indicate an avi-fauna in any wise different from that of the eastern province at large, and two of these cannot be considered very strong marks since they both occur some distance further eastward. (*Coues.*) Very abundant summer resident in Manitoba on scrubby prairies and half open lowlands. This small sparrow arrives in flocks about the 12th May. Its small size and pale-ashy hue will generally identify it as it rambles over the scrubby part of the prairie. (*Thompson-*

Seton.) This species was first seen at Indian Head, Assa., on May 20th, 1892. In a few days after they were quite common, and on June 7th I found a nest in a low bush lined with dried grass and horse hair. This species is found everywhere on the prairie wherever there is brush from Manitoba to the foothills of the Rocky Mountains. It nests chiefly in rose bushes, but I have found them on the ground at Frenchman's River, under sage brush (*Artemisia cana*). Nests were found at Spur Creek in the sage brush as late as July 7th with fresh eggs. Common at Canmore in the Bow valley, but scarce at Banff in the Rocky Mountains in June, 1891. First seen at Edmonton, Alta., May 31st; found a number of nests, all on the ground at the roots of a little clump of willows; none of the nests were more than four inches above the ground, and were made of dried grass lined with horse hair; eggs from two to five in a set; common in the foothills, 40 miles southwest of Calgary; common in all the open country from Lesser Slave Lake to Peace River Landing, Lat. 56° 15' in June, 1903; common from Edmonton to Pembina River in June, 1898. (*Spreadborough.*) Three specimens secured at Grand Rapids of the Saskatchewan. (*Nutting.*) Commonly seen in company with the tree sparrow and probably breeding around Prince Albert, Sask. (*Coubeaux.*) This species frequented the farm-yard at Carlton House on the Saskatchewan, and was as sociable as the English house sparrow. (*Richardson.*) North of Fort Resolution on Great Slave Lake. (*Ross.*)

BREEDING NOTES.—Upon my arrival, the 1st of June, the buntings were all paired, the males were in full song, nidification was mostly finished, and the eggs were about to be laid. The first specimen procured, June 2nd, contained a fully formed egg. A nest taken June 5th was scarcely completed. The first complement of eggs was taken June 11th; it numbered four. I think the eggs are mostly laid by the end of the second week in June. The nest is placed in bushes, generally within a few inches of the ground; it resembles that of the chipbird, though it is not so neatly and artistically finished, and often lacks the horse-hair lining, which is so constant and conspicuous a feature of the latter; in size it averages about three inches across outside by two in depth, with a cavity two inches wide and one and a half inches deep; the structure is of fine grasses and slender weed-stalks, with or without

some fine rootlets, sometimes lined with hair, like the chippy's, sometimes with very fine grass tops; it is placed in a crotch of the bush or in a tuft of weeds; the copses of scrubby willows I found to be favorite nesting places, though any of the shrubbery along the river bank seemed to answer; on those occasions when I approached a nest containing eggs, the female fluttered silently and furtively away, without venturing a protest; the eggs I found in one case to be deposited daily till the complement was filled; they measure 0.62 in length by 0.50 in breadth on an average; the ground-colour is light dull green, sparsely but distinctly speckled with some rich and other darker shades of brown, these markings being chiefly confined to the larger end, or wreathed about it, though there are often a few specks here and there over the rest of the surface; from the earliness of the first sets of eggs, I suppose that two broods may be reared each season. (*Coues.*) The spot chosen for their home is mostly in a low bush, not more than a foot from the ground; as exception to this rule I have noted five nests on the ground and one or two at a height of three feet; it is a very slight structure, a good deal like that of a chipping sparrow, but composed entirely of grass; when compared with other tree nests it is conspicuously flimsy and light-coloured, the latter effect being due to the absence of the black fibrous roots so commonly used as lining; the eggs are among the most beautiful of any produced by the sparrows; when first the discoverer draws aside the bush and exposes the nest with its complement, his feelings are as of finding an exquisite casket of jewels; although this is one of the most common of our sparrows, and although on the scrubby plain between the Duck Mountain and the Assiniboine in early June, I could have found as many as four or five nests in an hour's walk, the treasure-trove feeling in connection with the eggs continues in full force. I infer from the above and other observations that the shattuck bunting breeds twice, if not three times each season with us; it leaves the "big plain" about the end of September. (*Thompson-Seton.*) Builds in rose bushes, snow-berry and wolf-willows generally from one to two feet from the ground; in size it is about three inches in diameter, but the cavity is less than two inches across. The nest is built of the stems of finer grasses and quite an open structure lined inside with coarse dark horse-hair, other nests were lined with white hair; in June, 1896, two nests were taken at Sewell, Manitoba, each contained

four eggs and were built in bushes of dwarf birch, *Betula glandulosa*. (Macoun.)

MUSEUM SPECIMENS.

Nineteen; one taken at Carberry, Manitoba, July 4th, 1892, by E. Thompson-Seton; three taken at Indian Head, Assa., in September, 1891, two at Old Wives' Creek, Assa., in May, 1895, two at Medicine Hat, Assa, in May, 1894, three at Edmonton, Alta., May, 1897, two at Peace River Landing, Atha., June, 1903, and six at Canmore, Alta., in May, 1891.

Five sets of eggs; two sets of four each, taken at Edmonton, Alta., May 31st and June 1st, 1897, one of four taken at Medicine Hat., Assa., June 1st, 1894, one of three taken at Trail, B.C., June 6th, 1902, all by Mr. Spreadborough; one set of four taken at Grenfell, Manitoba by Mr. Richard Lake in June, 1894.

562. **Brewer's Sparrow.**

Spizella breweri CASS. 1856.

Eastern slope of Coast Range and Rocky Mountain district; also on the Similkameen River, B.C. (*Fannin*.) One specimen taken in the pine woods above Ashcroft, B.C. (*Rhoads*.) Two males taken at 158-Mile House, Cariboo District, B.C., July 3rd, 1901. (*Brooks*.)

563. **Field Sparrow.**

Spizella pusilla (WILS.) BONAP. 1838.

An uncommon summer resident in Nova Scotia. (*Downs*.) Several specimens seen October 4th, 1902, on Sable Island, N.S. (*James Boutellier*.) A few specimens seen June 8th, 1902, at Sydney, Cape Breton Island. (*C. R. Harte*.) A pair in breeding plumage was taken on Entry Island, Magdalen Islands, Gulf of St. Lawrence, July 8th, 1887. (*Bishop*.) Of doubtful occurrence in eastern Quebec. (*Dionne*.) A scarce summer resident at Montreal. I have not secured a specimen as yet, but I believe I have come across them on various occasions. (*Windle*.)

In each of the years 1888, 1889 and 1890 at least one individual of this species has been observed several times through the summer. (*Ottawa Naturalist*, Vol. V.) Not common in eastern

Ontario. (*Rev. C. J. Young.*) Mr. Kay took one specimen at Port Sydney, Muskoka district in the summer of 1890. (*J. H. Fleming.*) I have found this bird fairly plentiful in suitable places around Toronto; and have met with it as early as April 12th. Took two on April 22nd, 1899. They usually haunt waste ground in which occasional clusters of bushes are found. I know of one spot of waste ground interspersed with small patches of witch hazel and scrub oak, which is never without a few representatives of this pretty little sparrow. Breeds here. Can easily be identified at a considerable distance by its cinnamon-tipped beak. (*J. Hughes-Samuel.*) Locally distributed, but generally common near London, Ont. Easily found by its song, but not conspicuous otherwise. It nests both on the ground and in small shrubs one to four feet from the ground. In my trips to the Bruce Peninsula have seen but few of these birds. While at Kazabazua, 40 miles north of Ottawa, it has been fairly common at every visit. Arrives at London about April 20th and departs about October 2nd. (*W. E. Saunders.*)

Very rare summer resident, Red River settlement; breeding. (*D. Gunn.*) Winnipeg; summer resident; tolerably common. (*Hine.*) Have seen it west of Winnipeg. (*R. H. Hunter.*) Qu'Appelle; common summer resident; breeds; arrives about April 15th. (*Guernsey.*) All the above references are taken from Thompson-Seton's "Birds of Manitoba" and it may be noted that none are his own observations. My opinion from many years' observation and correlation of other statements is that nearly all, if not all the above references are erroneous, and that they apply to the clay-coloured sparrow (*Spizella pallida*) which we know is abundant, at least in western Manitoba. The latter, though abundant, was not recorded by Guernsey, R. H. Hunter, nor Mr. Hine so that in these three cases I am quite sure that the identification is wrong, I doubt very much the occurrence of this bird at Winnipeg. (*Macoun.*)

• BREEDING NOTES.—I have found the nest several times by the roadside in a small bush. It appears to be a late breeder as the nests I found had fresh eggs in them in July. If closely observed this bird is unmistakable, being easily recognized by its waxen-coloured bill. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Two; one taken at Port Stanley, Ont., August 12th, 1890, and one taken at London, Ont., April 18th, 1892, both by Mr. W. E. Saunders.

One set of four eggs taken at Toronto by Mr. W. Raine, May 10th, 1894; another set of four taken near Toronto by Mr. G. Dippie, May 20th, 1893.

CCIV. JUNCO WAGLER. 1831.

567. Slate-coloured Junco.

Junco hyemalis (LINN.) SCL. 1857.

Not observed in the Ungava district of Labrador; but common in the eastern and southern portions. Breeds at Davis Inlet and Rigolet. (*Packard.*) Observed one individual on Moose River, June 7th, 1896; one on James Bay, June 18th; found a pair breeding at Fort George; only seen twice in crossing Ungava from Richmond Gulf to Fort Chimo. (*Spredborough.*) Locally common as far as the tree line in northeastern Labrador, particularly at Aillik. (*Bigelow.*) Two specimens taken at Northwest River, Labrador, July 28th, 1891. (*Norton.*) A summer migrant and tolerably common in Newfoundland. (*Reeks.*) A few individuals seen along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*) A few specimens were seen on Sable Island, N.S., in April and one in June, but on October 4th and 23rd, 1902, they were quite numerous. (*James Bouteillier.*)

Very common throughout Nova Scotia: breeds everywhere. (*Downs.*) Seen several times during the winter at Parrsboro, Cumberland Co., N.S.; migrants arrived at Shulee on March 18th, and in a few days were abundant. (*Morrell.*) Quite common on Cape Breton Island, N.S., July and August, 1898, nests taken on Smoky Mountain, August 1st, and at Margaree, July 16th; common along Rustico Bay, Prince Edward Island, June 29th, 1888. (*Macoun.*) Very abundant at Sydney, Cape Breton Island. (*C. R. Harte.*) Very common from March to November at Wolfville, Kings Co., N.S. (*H. Tufts.*) Next to the Savanna sparrow this is probably the most abundant bird on Prince Edward Island. It is found everywhere—in door yards, in open fields, fern-clothed clearings, even deep woods. Its nest is on

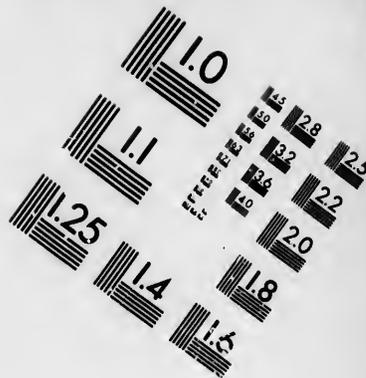
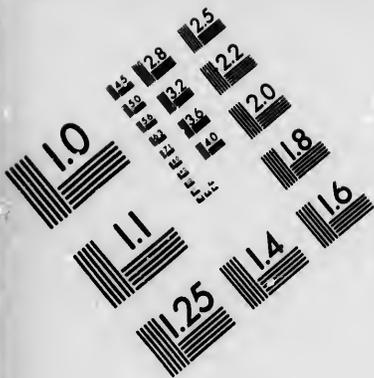
the ground, preferably under something—the bottom rail of a fence or a hole in some grassy bank. Young were just beginning to fly June 23rd and a week later nests with fresh eggs indicated a second laying. (*Dwight.*) Very common summer resident in New Brunswick. (*Chamberlain.*) An abundant summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Very common in the Restigouche valley, N.B. (*Brittain & Cox.*) Breeds, but is irregularly distributed on the Magdalen Islands. (*Bishop.*) Of general and uniform distribution on the shores and islands of the Gulf of St. Lawrence. (*Brewster.*) Abundant in summer at Lake Mistassini, northern Quebec. (*J. M. Macoun.*) Taken at Beaufort; common summer resident in eastern Quebec. (*Dionne.*) An abundant summer resident at Montreal. Breeds in Mount Royal park. I have found their nests, with eggs, from May 17th to June 19th, and have observed them here from March 29th to October 25th; and on one occasion I saw two here—Dec. 24th, 1882. (*Windle.*)

A common summer and autumn migrant. A few remain to breed around Ottawa. (*Ottawa Naturalist*, Vol. V.) I notice that this bird is a common spring and autumn migrant in eastern Ontario. Numbers of them arrive in the latter part of September and are met with commonly in clearings and stubble fields during October. In the spring they re-appear early in April and continue through the month. A few breed in the county of Renfrew, and I have met with the nest in June. I have not noticed that it breeds along the St. Lawrence, though I have watched for it in suitable localities. It breeds sparingly on the Magdalen Islands as well as at Pictou, Nova Scotia. (*Rev. C. J. Young.*) A common breeding summer resident in the Parry Sound and Muskoka districts; very fond of nesting near old bush roads. (*J. H. Fleming.*) A few remain around Toronto every winter. (*J. Hughes-Samuels.*) Abundant everywhere along the Parry Sound Railway within the Algonquin Park, Ont.; young ones were able to fly by June 19th, 1900; nests were found on the ground near logs and another beneath a tuft of grass on July 15th, 1900. (*Spreadborough.*) London seems to be nearly the southern limit of this species; here it is rare in summer, but at Bryanston, 15 miles northeast it is fairly common in the same class of woods; and in north Bruce it is quite common. There have been two or three seasons in the last twenty years when it has been noted regularly throughout the

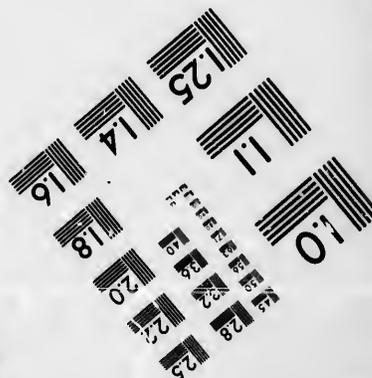
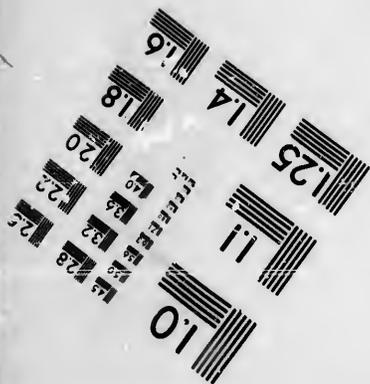
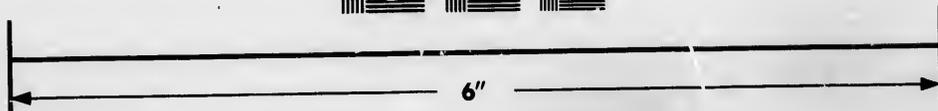
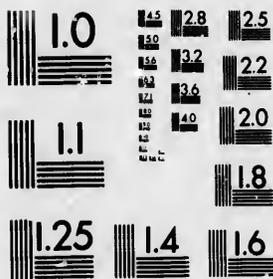
summer, but as a rule it is only found in large cedar swamps and even then in small numbers. Although nesting usually on the ground one nest was found here 10 feet above the ground in a thicket of vines against a brick wall and contained five eggs, an unusually large set. Nests on the ground are almost invariably made on sloping ground and the nest placed well back in an excavation. (*W. E. Saunders.*) Abundant during migrations at Guelph, Ont., especially in spring, common in winter and scarce in summer. (*A. B. Klugh.*) A common and breeding summer resident at Penetanguishene, Ont. (*A. F. Young.*)

A specimen was taken June 20th at Norway House, where the species was common; another was secured July 3rd, one of a number seen in the spruce and tamarack woods about Oxford House, and the species was again observed while we were ascending Steel River, September 1st. (*Prebles.*) Fort Churchill, Hudson Bay. (*Clarke.*) The snowbird appeared along the Mouse (Souris) River about the middle of September in troops as usual and at once became abundant. These specimens were pure *hyemalis*. (*Coues.*) An abundant migrant in Manitoba, frequenting thickets and hillsides. A few may breed in the northern part of the province. (*Thompson-Seton.*) This species was first seen April 4th, 1892, at Indian Head, Assa., and disappeared by the 15th May, none seemed to breed here; first seen at Medicine Hat, Assa., on April 10th, 1894, and later in the month a few more; a common species at Edmonton and south in the foothills to Crows' Nest Pass; abundant from mouth of Lesser Slave River to Peace River Landing, Lat. 56°, 15', June, 1903; common from Edmonton to Yellowhead Pass, Rocky Mountains, June, 1898. (*Spreadborough.*) Abundant at Grand Rapids of the Saskatchewan where it was breeding; nests in thick bushes along the river bank opposite the fort. (*Nutting.*) Very abundant migrant at Prince Albert, Sask., in spring and fall but never seen in summer. (*Coubeaux.*) First noticed May 9th, 1888, at Red Deer River north of Calgary; common from that point to Edmonton and Athabasca Landing and up to Little Slave River; rare down the Athabasca River to Fort McMurray; not seen at all on the Clearwater River until Methye Portage was reached; very common on the portage and from there to Isle à la Crosse. (*J. M. Macoun.*) Rare straggler at Chilliwack; have taken it twice. (*Brooks.*) This bird is merely a summer resident of the Northwest Territories and is not common nor was





**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
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Corporation**

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it seen by us beyond Lat. 57°. (*Richardson.*) North to Fort Good Hope on the Mackenzie River. (*Ross.*) This species breeds in the forest and to the border of the "barrens" where several birds, nests and eggs, were secured; the nests were always on the ground and made with fine hay lined with deer hair. (*Macfarlane.*)

This is one of the rarest sparrows visiting Behring Sea; it is, however, much more numerous in the interior and is found along the entire course of the Yukon at the mouth of which it breeds; it extends its summer range along the Norton Sound shore of Behring Sea and the coast of the Arctic about Kotzebue Sound, yet there is no record of it having been taken on the coast of southeastern Alaska, nor does it occur on any of the islands of Behring Sea. (*Nelson.*) This species is rarely common at St. Michael; it is seen only in May and November. (*Turner.*) This is a straggler at Point Barrow, only one specimen being taken on May 24th, 1883, which was a male. (*Murdoch.*) At the time of our arrival at our winter camp on the Kowak, and up to the 9th September, juncos were seen nearly every day, though not more than five at a time; they were always met with in the deep spruce woods; the last were seen on the 12th September; in the following spring they were noted on the 23rd May; they were never numerous, two pairs being the most that were seen in half a day's hunt; this species was not noted further down the Kowak than near the mouth of the Squirrel River, where a pair was seen on June 8th. (*Grinnell.*) Common at Hope on Cook's Inlet, Alaska, in August, 1900. (*Osgood.*) Five specimens were taken on the Kenai mountains and at Homer, Alaska, in August and September, 1901; the breeding ground of this junco was in extensive alder patches just above timber line; they were quite common and were found in all such localities visited. (*Chapman.*) From Log Cabin on the White Pass, to Circle City in Alaska, this bird occurs everywhere. The slate-coloured sparrow, Gambel's sparrow and the western chipping sparrow were most common about heaps of brush left by lumbermen, weed-grown clearings resulting from forest fires and cabins of the towns. Every nest was sunk in the ground to the rim in an open place under a weed or tussock of grass. One contained a few dark hairs besides the usual fine grass lining. (*Bishop.*)

REEDING NOTES.—The nesting season of this species in New Brunswick is May and June. From three to five eggs are laid in

a well-concealed nest placed on the ground, under the protection of a rock, sod, root or log. The nest is composed of grass stems lined with hair. One nest was found made entirely of hair taken from a piece of cariboo skin. (*W. H. Moore.*) One nest found on Chelsea Mountain, nine miles from Ottawa, on May 12th, 1903, and another taken on Montreal Mountain on June 3rd, 1903, were in holes in the ground; each nest was made of grass and hair and each contained four eggs, and measured 4 x 2 and 2.50 x 1.50 inches. (*Garneau.*) Not a common summer resident at Ottawa. Nest in a low bush or on the ground, composed of strips of bark, rootlets and hairs, lined with moss and hair; eggs 4 or 5, greenish-white, spotted and blotched with reddish-brown. (*G. R. White.*)

MUSEUM SPECIMENS.

Sixteen; three taken at Ottawa, April, 1888, by Prof. Macoun; two at Toronto in 1890, by Mr. S. Herring; two at Ottawa, April and September, 1891, by Mr. F. A. Saunders; one at London, Ont., April 12th, 1886, by Mr. W. E. Saunders; four at Indian Head, Assa., April, 1892, and three at Edmonton, Alta., April, 1897, by Mr. Spreadborough.

One set of three eggs taken at Ottawa, May, 1894.

567a. **Oregon Junco.**

Junco oregonus (TOWNS.) RIDGW. 1901.

An abundant resident west of the Coast Range. (*Fannin.*) Abundant resident at Chilliwack, B.C. (*Brooks.*) Very abundant in the Fraser valley below Yale in May, 1889; common during the whole summer at Chilliwack and at Huntington, B.C., on the International Boundary. An abundant summer resident at Victoria, Vancouver Island; nesting by April 9th, 1893. Doubtless common over the whole island as it was seen at Sooke, Comox and Nanaimo. (*Spreadborough.*) The occurrence of this bird in Alaska was first made known by the capture of eight specimens at Sitka by Bischoff; it was afterwards taken by Bean at Sitka. (*Nelson.*) A single specimen of this bird was obtained at Unalaska Island April 8th, 1879, where it was shot by a native. (*Turner.*) Numerous in open bushy places at Sitka, Alaska. This junco was one of the commonest land birds there. (*Grinnell.*) Not common on Queen Charlotte Islands. It was very seldom seen near the coast and but few were noticed on the mountains.

(*Osgood.*) Tolerably common at Skagway and more so at Haines Mission. At Skagway I took a female and four fresh eggs, May 31st. The nest of dried grass, lined with short, white hairs, was sunk in the ground and concealed by dead weeds under a birch only about 30 feet above the water of Lynn Canal. (*Bishop.*)

Mr. Rhoads, after discussing the differences between this form and the next, says:—"I think it safe to say that birds indistinguishable from *oregonus* breed on the better watered mountains of the interior of British Columbia. The only approach to *shufeldti* is found in birds from the most arid lowlands and most eastern Rockies, but their differences are too slight and fortuitous to warrant a distinction."

MUSEUM SPECIMENS.

Eight; two taken at Burrard Inlet, B.C., in April, 1889; four at Huntington, B.C., in September, 1901; two at Victoria, Vancouver Island, in May, 1893; all by Mr. Spreadborough.

One set of five eggs taken near Victoria, V.I., May, 1890, by Rev. G. Taylor.

567b. *Shufeldt's Junco.*

Junco oregonus shufeldti (COALE) RIDGW. 1901.

In company with two *hyemalis* at Edmonton, Alta., in May, 1897, and in the Rocky Mountains south of Yellowhead Pass, in July, 1898; apparently accidental in the Rocky Mountains, one taken at Canmore near Banff in May, 1891; very common and breeding in the Columbia River valley from Revelstoke to the International Boundary where a large series of birds was taken in 1890 and 1902. Common from the Columbia to Vancouver Island. West of the Coast Range it becomes mixed with the Oregon junco and evidently breeds; very abundant at Penticton, south of Okanagan, B.C., in April, 1903. (*Spreadborough.*) The junco breeding in the plateau region between the Coast Range and the Rockies and migrating south in winter, is evidently separable from the coast form. Specimens referred here were collected at Ashcroft in June and July, 1889; taken also by Mr. Macfarlane at Stewart's Lake with its nests and five eggs. (*Streator.*) Abundant at Lake Okanagan, B.C., in winter. (*Brooks.*) A female was taken at Glacier in the White Pass, June 7th 1899 and another at White

Pass City, June 9th; others were taken and heard next day both at Glacier and White Pass City. (*Bishop.*)

BREEDING NOTES.—On May 31st, 1902, found two nests near Trail, B.C.; one with four eggs the other with two; incubation was far advanced. Nests constructed of weeds and grass, lined with hair. Both nests were in a bank overhung with grass; another was found on May 25th in the bank of an old prospect hole with four fresh eggs. (*Spreadborough.*)

MUSEUM SPECIMENS.

Twenty-nine; two taken at Edmonton, Alta., in May, 1897; one at Canmore, Alta., May 29th, 1891; five at Revelstoke, B.C., in May, 1890; two at Deer Park, B.C., June, 1890; five at Trail, B.C., June, 1902; one at Spence's Bridge, B.C., June 3rd, 1889; five at Penticton, B.C., in April, 1903; one at Agassiz, B.C., May 21st, 1889; one at Hastings, Burrard Inlet, April 17th, 1889; three at Chilliwack, B.C., June, 1901; one at Huntington, B.C., September, 24th, 1901, and two at Victoria, Vancouver Island, May, 1893; one set of four eggs taken at Trail, B.C., May 25th, 1902. All the above taken by Mr. Spreadborough.

567.1. **Montana Junco.**

Junco montanus RIDGWAY. 1898.

This form accompanies *hyemalis* in the migration at Carberry, Manitoba. (*Thompson-Seton.*) Mr. Thompson-Seton refers this bird to *shufeldti*, but having taken *montanus* at Medicine Hat in 1894, and found them breeding in June on the east end of the Cypress Hills about 100 miles southeast of that point, we place his reference under that species. (*Macoun.*) Quite common at Banff; Rocky Mountains in the summer of 1891; nests were taken on Tunnel Mountain. They were always placed on the ground beneath a bush or on a slope. Breeds twice in a season at Banff. (*Spreadborough.*)

BREEDING NOTES.—I have the nest and eggs of this bird that were collected on Tunnel Mountain, at Banff, June 25th, 1893. Nest, on the ground amongst loose stones, composed of dried grass stems lined with hair. (*W. Raine.*)

MUSEUM SPECIMENS.

Two ; one taken at Medicine Hat, Assa., April 23rd, 1894, and one at Banff, Rocky Mountains, May 16th, 1891, both by Mr. Spreadborough.

CCV. **MELOSPIZA** BAIRD. 1858.581. **Song Sparrow.**

Melospiza cinerea melodia (WILSON) RIDGW. 1901.

Very common in Nova Scotia; a few remain all winter. (*Downs*.) A common species at Sydney, Cape Breton Island, arriving in March. (*C. R. Harte*.) Common throughout the year at Wolfville, King's Co., N.S. (*H. Tufts*.) One seen at Partridge Island pier, near Parrsboro, Cumberland Co., N.S., February 12th and following days. Migrants reached Shulee March 22nd, becoming common at once. (*Morrell*.) Quite common at Baddeck and Margaree, Cape Breton Island. N.S., July, 1898; breeding in large numbers at Brackley Point and other places on Prince Edward Island, July, 1888. (*Macoun*.) Very abundant and generally distributed on Prince Edward Island. Mr. Bain states that some winter on the island. (*Dwight*.) A common resident in New Brunswick. (*Chamberlain*.) An abundant summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Common in the Restigouche valley, N.B. (*Brittain & Cox*.) Common at La've Mistassini, northern Quebec. (*J. M. Macoun*.) A rather common summer resident on the Magdalen Islands. (*Bishop*.) Abundant along the shores of the Gut of Canso and a few at Gaspé, Que. (*Brewster*.) Common summer resident in Quebec. (*Dionne*.) An abundant summer resident in the district of Montreal. Breeds in the city and in Mount Royal park. I have found their nests with eggs from May 8th to July 28th, and observed them from March 24th to October 24th. (*Wintle*.)

An abundant summer resident around Ottawa, breeding on banks and under bushes. (*Ottawa Naturalist*, Vol. V.) Common everywhere in Ontario, occasionally commencing to breed in the latter part of April, and continuing to do so through the spring and summer as late as the middle of July. This year (1901) they came on the 25th March and were then in full song. I have found the nest on the ground often in a bush, and occa-

sionally four feet up. (*Rev. C. J. Young.*) Breeds abundantly in the Parry Sound and Muskoka districts of Ontario. (*J. H. Fleming.*) Abundant everywhere along the streams and shores of lakes in Algonquin Park, Ont. (*Spreadborough.*) This general favourite may frequently be heard breaking into full song at midnight during the lovely nights in May, often being answered by birds roosting in nearby trees or bushes. On two different occasions I have found a nest of this species built in an old tomato tin. (*J. Hughes-Samuel.*) Everywhere abundant in southwestern Ontario. Occasionally one remains through the winter. (*W. E. Saunders.*) This is an abundant summer resident and one which seeks the society of man, being found wherever human habitations have been raised within its range. (*McIlwraith.*) Abundant summer resident at Guelph, Ont. Arrives about March 12th and leaves about November 1st. (*A. B. Klugh.*) A common and breeding summer resident at Penetanguishene, Ont. (*A. F. Young.*) Common in the willow thickets along the Moose River to James Bay, at Moose Factory; none observed farther north. (*Spreadborough.*)

Common at Norway House, and in the shrubbery about the clearing at Oxford House, and a number observed about Knee Lake, July 5th. Not noted between Knee Lake and York Factory on our downward trip though we found the species rather common on Hill River as we ascended it early in September. (*E. A. Prebles.*) One taken at Norway House, foot of Lake Winnipeg. (*Dr. R. Bell.*) First noticed near Prince Albert on the Saskatchewan in company with other species in the spring migrations of 1899. Probably not uncommon but an irregular visitant. (*Coubeaux.*) The most abundant sparrow both at Grand Rapids and Chema-wawin, Saskatchewan River, where the shrubbery was thick. (*Nutting.*) Quite common on Clearwater River, Lat. 56° 30'; very common on Methye Lake to the exclusion of other birds; common in places south to Isle à la Crosse. (*J. M. Macoun.*)

Only one specimen of this species taken by me on the 49th parallel. This was on Turtle Mountain. (*Coues.*) A common summer resident in Manitoba, chiefly along the water courses and northward, but always preferring the neighbourhood of water. (*Thompson-Seton.*) First individual seen at Indian Head, Assa., April 30th, 1892; they were common by the 20th, and bred in considerable numbers; one male was seen at Medicine Hat, Assa.,

April 30th, 1894; quite common in scrub along the river and creeks by May 5th; a few found breeding at Crane Lake, but especially along Skull Creek; in the Cypress Hills, at the last of June; they were quite common along the willow thickets bordering the small creeks forming Swift Current Creek. This species is always by water, and wherever there is water and brush. We found it from Old Wives' Creek to Wood Mountain and west to Frenchman's River, and by all the creeks issuing from the Cypress Hills. Many nests were found on the ground, generally beneath willows. A few individuals were seen in the Milk River valley at Castellated Rocks, Alberta, also on the West Butte, on the 49th parallel, and at Lee's Creek farther west; very rare at Banff in the Rocky Mountains, breeding in the bushes in the marsh below "the Cave and Basin" in June, 1891; first observed one April 20th, at Edmonton, Alta.; found a nest May 26th and another May 27th with five eggs; nests, on the ground, composed of dry grass, lined with a little horse hair; common south in the foothills to Crow's Nest Pass; common from mouth of Lesser Slave River to Peace River Landing Lat. $56^{\circ} 15'$ in June, 1903; common from Edmonton to the crossing of McLeod's River, north of Edmonton in June, 1898. (*Spreadborough.*)

BREEDING NOTES.—A common breeding bird around Ottawa. Nest in a low bush, or tuft of grass, or on the ground; built of grass, rootlets and vegetable matter, lined with grass and hair. Eggs four, greenish or grayish white spotted with brown, chocolate and lavender. (*G. R. White.*) Breeding in May, June and July, and occasionally in August in New Brunswick. I would not be surprised if some specialist were to divide our song sparrows into two races. There is certainly a difference in the songs of those in different localities, a great difference in their eggs and the location of the nest. (*W. H. Moore.*) Some of the nests are on the ground or sunken in the ground, also in the midst of heaps of dead branches or covered by tufts of tall grass in the fields or by reeds in the marshes. Others are built in bushes or in small trees to a height of ten feet, and many on the lower branches of large conifers. A few are found in holes of trees or in logs in fences. The materials used are grasses, bark and leaves with finer grass or hairs as lining. Eggs may be found from April to August at Ottawa. (*Garneau.*)

MUSEUM SPECIMENS.

Twenty-seven; one purchased with the Holman collection in 1885; one taken at Ottawa, in April, 1888, by Prof. Macoun; three taken at Ottawa in April, 1890, by Mr. F. A. Saunders; one taken at London, Ont., April 1st, 1886, by Mr. W. E. Saunders; seven taken at Lorne Park, Toronto, in May, 1889, by Mr. E. Thompson-Seton; three taken at Indian Head, Assa., in April, 1892, three at Medicine Hat, Assa., May, 1894, one at Old Wives' Creek, May 27th, 1895, two at Peace River Landing, Lat. $56^{\circ} 15'$, June, 1903, and four at Edmonton, Alta., May, 1897, all by Mr. Spreadborough.

Six sets of eggs; three taken at Ottawa by Mr. W. D. Lees contain four, six and five eggs respectively; one of five eggs taken on the canal bank at Ottawa, May 3rd, 1898, by Mr. L. Lambe; one of three eggs taken at Indian Head, Assa., June 11th, 1892, and one of five eggs at Edmonton, Alta., May 27th, 1897, both by Mr. Spreadborough.

581j. **Dakota Song Sparrow.**

Melospiza cinerea juddi (BISHOP) A. O. U. COMM. 1901.

This sub-species is found throughout Assiniboia. At Yorkton, Assa., June 1st, 1901, I found a nest of this bird containing four eggs, built on the ground amongst short grass. (*W. Raine.*) Our specimens taken on many parts of the prairie are all placed with the eastern form by Mr. Oberholser. (*Macoun.*)

581b. **Mountain Song Sparrow.**

Melospiza cinerea montana (HENSHAW) RIDGW. 1901.

Not uncommon near the International Boundary between Trail and Cascade, B.C., in June, 1902; they seemed to be breeding on the mountains. (*Spreadborough.*)

MUSEUM SPECIMENS.

Four; three taken at Trail, B.C., June 6th, 1902; one taken at Cascade, B.C., June 20th, 1902, all by Mr. Spreadborough.

581e. **Rusty Song Sparrow.**

Melospiza cinerea morphna (OBERH.) RIDGW. 1901.

Regular summer visitor. (*Lord.*) Common in British Columbia west of Coast Range; specimens taken at Ashcroft in the interior are of this form. (*Streator.*) An abundant resident confined chiefly

to the coast and Vancouver Island. (*Fannin*.) An abundant resident at Chilliwack. Tolerably common winter resident at Lake Okanagan, B.C. (*Brooks*.) The distribution of *guttata* in Washington and British Columbia is singularly uniform in all kinds of localities, no difference between coast and interior individuals being apparent. (*Rhoads*.) Breeding from extreme southern portion of Alaska through British Columbia, including Vancouver Island, to Oregon. (*Ridgway*.) Saw what I took to be this form in the valley of McLennan river, west of the Rocky Mountains and south of Yellowhead Pass, in B.C., July, 1898; not uncommon at Revelstoke, B.C., in April, 1890. Further west it was found common at Sicamous and Kamloops in 1889; not common at Penticton, B.C., a few pairs breeding; it was very abundant, however, west of the Coast Range at all points visited and was particularly abundant on Vancouver Island. Except at Revelstoke, it was found breeding throughout its range; like the eastern song sparrow it likes to breed near water. (*Spreadborough*.)

MUSEUM SPECIMENS.

Nineteen; two taken at Revelstoke, B.C., April 10th, 1890; one at Penticton, B.C., April, 1903; one at Sicamous, July 5th, 1889; two at Kamloops, B.C., in June, 1889; three at Agassiz, B.C., in May, 1889; three at Hastings, Burrard Inlet, B.C., in April, 1889; three at Chilliwack, B.C., in May and June, 1901; two at Huntington, B.C., in September, 1901; one at Victoria, Vancouver Island, April 28th, 1893, and one at Comox, Vancouver Island, June 23rd, 1893, all by Mr. Spreadborough.

Three sets of eggs; two of four taken at Hastings, B.C., April 27th, 1889, and Agassiz, B.C., May 21st, 1889, both by Prof. Macoun. One set of five taken near Victoria, Vancouver Island, by Rev. G. Taylor, in May, 1890. One of the Agassiz nests was built on the lowest strand of a wire fence.

581f. **Sooty Song Sparrow.**

Melospiza cinerea rufina (BRANDT) RIDGW. 1901.

An abundant resident chiefly along the coast of the mainland, B.C. (*Fannin*.) An abundant resident in the Fraser valley near the International Boundary in the summer of 1901. Rather common along the seashore at Hastings, Burrard Inlet in May, 1889,

and seen at Comox, Vancouver Island, June, 1893. (*Spreadborough.*) No specimens of this form were collected in the breeding season along the coast of British Columbia by me. (*Rhoads.*) Common at New Westminster and at English Bay and Stanley Park near Vancouver, B.C., 1894. (*E. F. G. White.*)

Tolerably common in the bushy or grassy margins of the forests along the beaches at Sitka, Alaska. (*Grinnell.*) Very abundant on Queen Charlotte Islands. A few nests were taken, one was situated in a bunch of weeds near the water's edge and contained two fresh eggs, all nests taken were in the same situation. (*Osgood.*) We heard several singing at Skagway, May 31st, 1899, and others were seen at Haines Mission, June 1st and 2nd. (*Bishop.*) In the wooded coast region of southeastern Alaska, including Sitka, and thence northwest to Lituya Bay and Kadiak, this bird is abundant, but beyond this limited region it is unknown at present. (*Nilson.*)

MUSEUM SPECIMENS.

Nine; one taken at Hastings, Burrard Inlet, B.C., April 12th, 1889; six taken at Huntington, B.C., in September, 1901; two taken at Victoria, Vancouver Island, May, 1893, all by Mr. Spreadborough.

One set of five eggs taken at Comox, Vancouver Island, May 27th, 1895, by Mr. W. Harvey. The nest was close to the beach in a bank of nettles, built of coarse grass or weed stalks on the outside and finer material within, ending with dark-coloured hair.

581.†. **Yakutat Song Sparrow.**

Melospiza cinerea caurina (RIDGWAY) RIDGW. 1901.

Coast of middle Alaska, from Cook's Inlet to Cross Sound; in winter to southern Alaska, taken at Howcan, Prince of Wales Island. (*Ridgway* in *The Auk*, Vol. XVI, 1899, p. 36.) Coast of the St. Elias district, Alaska, from Yakutat Bay to Lituya Bay. (*Ridgway.*)

581.1. **Kenai Song Sparrow.**

Melospiza cinerea kenaiensis (RIDGWAY) RIDGWAY. 1901.

Coast of Kenai peninsula, Alaska, from east side of Cook's Inlet to Prince William Sound. Type from Port Graham, Cook's Inlet, taken April 9th, 1892, by C. H. Townsend. (*Ridgway* in

The Auk, Vol. XVII, p. 29, 1900.) Two specimens taken at Homer, October 12th 1901 were the only ones seen near the Kenai Mountains, Alaska. (*Chapman.*)

581. *a.* **Kadiak Song Sparrow.**

Melospiza cinerea insignis (BAIRD) RIDGW. 1901.

Island of Kadiak, Alaska, and opposite coast of Aliaska peninsula. (*Ridgway.*)

582. **Aleutian Song Sparrow.**

Melospiza cinerea (GMEL.) FINSCH. 1872.

Among the several insular forms occurring in the Aleutian Islands and rarely extending their range to the adjacent mainland of southeastern Alaska this large hardy bird, a veritable giant among its congeners, is the most peculiar. It is a resident throughout the Aleutian Islands and is limited to the rocky shores and low flats with its bordering beaches, never going far inland, nor does it reach any considerable altitude. Strangely enough it does not pass to the northward even as far as the Prybilof Islands. To the eastward, however, it is abundant on the Shumagin Islands and Kadiak. (*Nelson.*) This species is a constant resident of the Aleutian Islands, the peninsula of Aliaska and the adjacent islands lying on the south as far eastward as Cook's Inlet. (*Turner.*) Abundant at Unalaska, October 5th to 7th, 1899, frequenting the roofs of buildings, lumber piles, wharves, beaches and weeds of the level country. (*Bishop.*) Ten specimens were taken at Sand Point, Popof Island, October 20th, 1901. This sparrow is fairly common on Popof Island, where it is resident. (*Chapman.*)

583. **Lincoln's Sparrow.**

Melospiza lincolnii (AUD.) BAIRD. 1858.

Rare at Fort Chimo, Labrador; a male obtained June 10th, 1883; common in southern portions. Drexler found it at Moose Factory, May 23rd, 1860. (*Packard.*) Common along the north-eastern coast of Labrador. A characteristic bird of the wooded parts of the coast as far north as Hamilton Inlet. (*Bigelow.*) Not an uncommon inland summer resident in Nova Scotia. (*Downs.*) A pair was found breeding at Brackley Point, Prince Edward

1st nest, June 26th, 1388. (*Macoun.*) Breeding in some abundance on both shores of the Gut of Canso, N.S. (*Brewster.*) A rare summer resident at Scotch Lake, York Co., N.B.; taken in 1899 at Fredericton where it undoubtedly breeds. (*W.H. Moore.*) Taken at Beauport, near Quebec; an uncommon migrant. (*Dionne.*)

A casual at Ottawa; a male of this species was shot, 16th May, 1884, near the east end of the city by Mr. G. R. White. (*Ottawa Naturalist*, Vol. V.) I have met with this bird breeding in the county of Leeds, Ont. One set of eggs I found in April on the ground by a small pine, and once in a clearing in a small wood in the mouth of June. A few breed on the Magdalen Islands where the song sparrow seems to be very rare. (*Rev. C. J. Young.*) Apparently rare in the Algonquin Park, Ont. Shot one at C ache Lake, July 10th, 1900. Doubtless a few breed. (*Spreadborough.*) Reaching us about the middle of May, these birds are so secretive in their habits that it is very difficult to make an accurate calculation of their numbers but a careful observer will usually see a few specimens each season. They visit us here in Toronto on the southern trip about the middle of September. (*J. Hughes-Samuel.*)

Observed in large numbers during the latter part of September and beginning of October along the Mouse (Souris) River. (*Coues.*) A rare spring and winter migrant at Carberry, Man. (*Thompson-Seton.*) Rather common, July 13th to 16th, at York Factory where three specimens were collected. (*E. A. Prebles.*) Only noted as a spring migrant at Indian Head, Assa.; they were first seen May 13th, 1892, and left again in a few days. Only a few were observed at Old Wives' Creek in 1895, but none were seen on the prairie at any place; they were not rare and breeding in the bushes at Banff in 1891; first observed at Edmonton, Alta., on May 5th, 1897, on June 1st found a nest on the ground in a bunch of grass, nest made of dried grass, eggs five, quite fresh; common in the foothills from Calgary southward to Crow's Nest Pass; found a nest with four fresh eggs June 28th, nest same as first; abundant from Edmonton to Lesser Slave Lake and Peace River Landing, Lat. 56° 15', 1903; seen everywhere between Edmonton and Yellowhead Pass in low bushes in June, 1898; quite common at Revelstoke, B.C., in May, 1890, and on the Columbia south to Robson, where they were seen again in 1902, they were breeding in low thickets; common at Penticton, south of Lake Okanagan, B.C. on April 28th, 1903. (*Spreadborough.*) North to

Fort Simpson, on Mackenzie River; not rare. (*Ross.*) Common during the autumnal migrations. (*Streator.*) Regular summer visitor. (*Lord.*) Found east and west of Coast Range. (*Fannin.*)

At Nulato this bird is rare, but thence it becomes more and more numerous towards the east and at Fort Yukon it is considerably more abundant. (*Nelson.*) Mr. Rhoads in *The Auk*, Vol. X, p. 21, says that he cannot see any difference between specimens of this species taken on Vancouver Island and those taken in Pennsylvania, and on this account he rejects *striata*, which is based on Vancouver Island specimens. (*Macoun.*) Two or three pairs breed in the grassy margin of the pond back of Sitka, Alaska. A juvenile about one-third grown was taken on June 25th. Mr. Brewster says of a female that was taken June 25th that it agrees with *striata* in respect to the streaking in the upper parts, but it would be unsafe to make it that form without material. (*Grinnell.*) An adult male was taken at Hope, Cook's Inlet, Alaska, and a few others were seen when we were there. The specimen taken shows none of the characters attributed to *Melospiza lincolnii striata*. (*Osgood.*) Seen at Log Cabin, June 15th, 1899; a female and a nest of fresh eggs were taken near Lake Marsh, July 5th. The nest was composed of coarse grass lined with fine, and was in a tuft of grass in a swamp, about four inches above the water. The species was occasionally met with to Circle City on the Yukon. (*Bishop.*)

MUSEUM SPECIMENS.

Twenty-four; one taken in Algonquin Park, Ont., July 10th, 1900, three at Indian Head, Assa., in September, 1891, five at Edmonton, Alta., in May, 1897, three at Peace River Landing, Lat. 56° 15', June, 1903, four at Banff, Rocky Mountains, in May, 1891, four at Revelstoke, B.C., in May, 1890, two taken at Penticton, B.C., Lat. 49°, April, 1903, two at Victoria, Vancouver Island, May, 1893, all by Mr. Spreadborough.

One set of five eggs taken at Edmonton, Alta., June 1st, 1897, by Mr. Spreadborough.

583a. **Forbush's Sparrow.**

Melospiza lincolnii striata BREWST. 1889.

One seen near Victoria, Vancouver Island, April 24th, 1893, and another on May 5th; after which time they were more common;

observed a number in a marsh on Depot Creek, Chilliwack Lake, B.C., July 24th, 1901; took one in a peat bog at Huntington on the International Boundary on September 24th. (*Spreadborough*.) Mount Lehman, lower Fraser valley; also Vancouver Island. (*Streator*.) Collected at Comox, Vancouver Island, in September, 1888, by E. H. Forbush. (*Fannin*.) Tolerably common migrant at Chilliwack; tolerably common breeder in the Caribou district, B.C.; one set of five eggs taken at 158-Mile House, July 3rd, 1901. (*Brooks*.)

All our specimens are placed with the *M. lincolni*, as we cannot separate them from that species. (*Macoun*.)

584. **Swamp Sparrow.**

Melospiza georgiana (LATH.) RIDGW. 1885.

Audubon, Vol. III, p. 111, states it to be abundant in Labrador. (*Packard*.) Not uncommon along the Humber River, Newfoundland, 1889. (*Louis H. Porter*.) A common summer resident in Nova Scotia. (*Downs*.) Nest found at Sydney, Cape Breton Island, May 25th, 1901; arrives in April. (*C. R. Harte*.) Fairly common from May to October at Wolfville, King's Co., N.S. (*H. Tufts*.) Breeding in some numbers around the swamps at Brackley Point and Rustico, Prince Edward Island, June, 1888. (*Macoun*.) Rather common in very wet, bushy meadows, with alders here and there, or in open swamps of limited area, such as occur along brooks in a cleared country such as Prince Edward Island. Not uncommon at Baddeck, Cape Breton Island. (*Dwight*.) An uncommon summer resident at St. John, N.B. (*Chamberlain*.) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Not uncommon on Magdalen Islands. (*Bishop*.) Rare in the Restigouche valley, N.B. (*Brittain & Cox*.) An abundant species on Anticosti Island and breeding there. (*Brewster*.) Taken at Beauport; a summer resident in eastern Quebec. (*Dionne*.) A common summer resident around Montreal. It is common in the marshes, but on account of its retiring habits is not noticed unless sought after by the collector of birds. (*Wintle*.)

A moderately common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) A common summer resident in the marshes of eastern Ontario. It makes its nest in the sedge in wet places. The eggs are readily distinguished from those of the soag sparrow, being spotted and speckled with umber instead of brick-red.

(*Rev. C. J. Young.*) One taken at Beaumaris on May 14th, 1898 by Mr. Tavernier is the only record I have for the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Abundant in the marshes of the Madawaska, below C ache Lake, Algonquin Park, Ont.; in June, 1900. (*Spreadborough.*) Found abundantly in the marshes near Toronto. Have found many nests early in May. (*J. Hughes-Samuels.*) Abundant summer resident in bogs and marshes at Guelph, Ont. (*A. B. Klugh.*) A few were seen in the shrubby woods back of the post of Oxford House and an adult was taken July 3rd. At York Factory, where the species was rather common, two young not long from the nest, were taken July 13th and 16th. (*E. A. Prebles.*) This species was observed with other members of the family during the autumn migration from the middle of September until the middle of October at the Mouse (Souris) River, Lat. 49°. In all, six specimens were taken. (*Coues.*) A common summer resident in Manitoba; nesting in swamps that have some willows about them; very abundant about Carberry, breeding in every slough. (*Thompson-Seton.*) North to Fort Resolution on Great Slave Lake; rare. (*Ross.*) One specimen taken at Indian Head, Assa., in May, 1892; everywhere in marshes from the foot of Lesser Slave Lake to Peace River Landing, Lat. 56° 15', June, 1903. (*Spreadborough.*)

BREEDING NOTES.—Rather rare as a breeding bird at Ottawa. Nest on ground in a tussock of grass or in a low bush, composed of rootlets weeds and grass, lined with fine fibrous matter; eggs 4 to 6; greyish white, speckled with reddish brown. (*G. R. White.*) Nests found in the marshes around Ottawa in May and June; they are attached to the reeds, which often hide the nest; sometimes they are built in bushes or on the ground along the swamps; the material, used are grasses, which are finer inside used as a lining; from three to five eggs are in the set. (*Garneau.*)

MUSEUM SPECIMENS.

Six; one purchased with the Holman collection in 1885; one taken at Ottawa, May 1888, by Prof. Macoun; three taken at Ottawa by Mr. F. A. Saunders in September, 1890; one taken in Algonquin Park, Ont., May 28th, 1900, by Mr. Spreadborough.

Two sets of eggs; one set of four taken at Cataraqui marsh near Kingston, Ont., June 3rd, 1900, by Mr. E. Beaupr e; nest in a marsh built of driest grass and lined with hair; the other, also of

four eggs, taken Gasperaux, N.S., May 22nd, 1898, by Mr. H. F. Tufts; nest of dried grass sunk into the side of a grassy mound in a swamp.

CCVI. *PASSERELLA* SWAINSON. 1837.

585. **Fox Sparrow.**

Passerella iliaca (MERR.) SWAINS. 1837.

Common in the southern part of Labrador; young obtained at Rigolet late in June and early in July 1882. (*Packard.*) Common from some distance up the Moose River to Richmond Gulf; none observed when crossing Ungava; young able to fly July 1st, 1896. (*Spreadborough.*) Common along the southern coast of Labrador; we found it as far north as Aillik. (*Bigelow.*) A summer migrant on Newfoundland and very common. (*Reeks.*) Two young birds seen August 17th, 1899, along the Humber River, Newfoundland. (*Louis H. Porter.*) Common during the spring and autumn migrations in Nova Scotia. (*Downs.*) One individual seen on Sable Island, N.S., April 20th, 1902, and a flock on October 4th. (*James Bouteillier.*) Female shot at Sydney, Cape Breton Island, May 18th, 1902; ovaries small; may possibly breed. (*C. R. Harte.*) A flock of migrants was seen at Shulee, Cumberland Co., N.S., March 29th; they were in song. (*Morrell.*) Common in the spring migrations, rare in the autumn migrations at St. John, N.B. (*Chamberlain.*) A rare spring and autumn migrant at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rather common; breeding on the Magdalen Islands about the last of June. (*Bishop.*) We found this sparrow among the Magdalens, on Anticosti and everywhere on the north shore of the gulf, breeding abundantly. (*Brewster.*) Taken at Beauport; a migrant in eastern Quebec, but breeding on the Mingan Islands. (*Dionne.*) A scarce and transient visitor in the vicinity of Montreal. (*Wintle.*)

A moderately common migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) I have shot this bird in the fall in the county of Leeds, Ont. I found it on two occasions frequenting second growth bush in old clearings. (*Rev. C. J. Young.*) Regarded as rare at Port Sydney, in 1888, by Mr. Kay; reported as common on September 7th, 1896, at Beaumaris by Mr. Tavernier; both localities are in Muskoka. (*J. H. Fleming.*) This species passes through Toronto so rapidly in its spring migration that it is quite easy to overlook

it entirely, hence the idea, I think, that it is scarce. I have met with these birds in the middle of April when each bush contained several, many perched on the upper twigs singing the richest sparrow melody I know of. On visiting the locality the next morning at day break not a sign remained of our fleeting visitors; in the fall, their visit is of much longer duration, but on disturbing a small party of these birds while scratching the dead leaves for their food they will fly up into the nearest evergreen tree and remain perfectly motionless till the intruder has passed from view. (*J. Hughes-Samuel.*) Usually rare but occasionally a common migrant in either spring or fall, and in rare seasons we may hear this fine songster in full song for perhaps a week; and yet until 1885 only two or three specimens had been noted near London, Ont., so that it appears to be increasing in abundance quite steadily. (*W. E. Saunders.*) Irregular migrant in spring at Guelph, Ont.; it is never common. (*A. B. Klugh.*) A rare and transient visitant at Penetanguishene, Ont. (*A. F. Young.*) A not very common migrant in Manitoba; breeding at Duck Mountain in the northern part of the province. (*Thompson-Seton.*) A not very common migrant in southern Saskatchewan. (*Co beaux.*) First noticed on the afternoon of July 10th, when its beautiful song was heard in the willow thickets, bordering Hayes River, a few miles above York Factory. While at York Factory we found fox sparrows fairly common in willow thickets, and took a pair, July 16th. (*E. A. Prebles.*) This handsome species breeds in the wooded districts of the Northwest Territories up to the sixty-eight parallel of latitude; it constructs its nest in a low bush, of dry grass, hair and feathers. (*Richardson.*) North to Lapierre's House on the Mackenzie River; common. (*Ross.*) Saw one, April 19th, 1897, at Edmonton, Alta.; saw individuals up to June 1st, a few pairs doubtless breed here; observed two individuals near Edmonton, June 7th, 1898, common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, June, 1903. (*Spreadborough.*) Not rare at Fort McMurray at the confluence of the Clearwater River and the Athabasca, Lat. $56^{\circ} 40'$; one bird and nest seen on Methye Portage, eggs not hatched July 18th, 1888. (*J. M. Macoun.*)

I did not discover the presence of the fox sparrow at Cape Blossom, Kotzebue Sound, until the evening of July 31st, 1898; fox sparrows were seen or heard all along the lower course of the

Kowak, and at our winter camp they were quite common up to August 23rd, when they abruptly disappeared. (*Grimmell*.) A wave of sparrows occurred at Circle City, Alaska, August 19th, 1899, and one individual was indentified as being of this species. (*Bishop*.) Along the coast of Norton Sound this bird is an abundant summer resident, sharing with the tree sparrows the bushy shelter of the alder thickets on the hillsides and sheltered ravines. (*Nelson*.) The fox sparrow arrives at St. Michael by the 8th June; breeds here in the thickets of alder around the edges of the small lakes. (*Turner*.)

BREEDING NOTES.—This bird is very common on the Magdalen Islands where I found four nests in June, 1897; all except one contained young by the 21st June; these nests were built in stunted spruce, one as much as five feet above the ground; they occasionally make their nest on the ground like the song sparrow, and I have seen a nest found in such a locality; a most interesting species, it perches on the 'topmost branches of a young spruce, and sings incessantly in its breeding habitat. (*Rev. C. J. Young*.)

Tolerably common on both banks of the Anderson, and two or three nests were also discovered in the vicinity of a small stream named Swan River, in the "barren grounds;" most of the nests were built on trees, and they resembled those of *Turdus aliciae*, but a few found on the ground, however, were composed of coarse dry grass, lined with some of a finer quality, a few deer hairs, and a sprinkling of fresh moss; the complement of eggs varies from four to five. (*Macfarlane*.) I have several sets from the Mackenzie delta; on June 10th, 1900, a nest and three eggs were found by Mr. C. E. Whittaker at Peel River, the nest was built in the root of a shrub near the ground; on June 1st, 1898, another nest and 4 eggs were found at Peel River by the Rev. I. O. Stringer, through whose kindness I have been able to describe the nests and eggs of many Arctic birds found by this gentleman in the far north, during his eight years sojourn amongst the Eskimos of that region, and it is to be regretted that owing to failing health Mr. Stringer had to abandon his work amongst the natives of the Arctic coast, as he has proved himself to be a keen observer and careful painstaking ornithologist; many of the specimens collected by Mr. Stringer were taken while he was travelling up or down the Mackenzie delta or along Arctic coast with bands of Eskimos and often at night when the natives had laid down to sleep, Mr.

Stringer had to skin the birds and blow the eggs and make his notes, and by the time this work was done the Eskimos were astir again and making ready to proceed on their journey. (*W. Raine.*)

MUSEUM SPECIMENS.

Six; one taken at Ottawa, by Prof. Macoun in May, 1888; two taken by Mr. F. A. Saunders in April, 1890; three taken by Mr. Spreadborough, in June, 1903, at Peace River Landing; these last represent the gray phase of Ridgway, but are doubtless a distinct form.

One set of five eggs taken at Nachvak, Labrador, by Mr. R. Guay, in June, 1897.

585*a*. **Shumagin Fox Sparrow.**

Passerella iliaca unalaschensis (GMELIN) RIDGW. 1900.

Shumagin Islands and Aliaska peninsula, Alaska; Unalaska Island? (*Ridgway.*) An adult female taken at Homer, Kenai peninsula, June 5th, 1901, agrees with Shumagin Island specimens. (*Chapman.*)

585.1. **Kadiak Fox Sparrow.**

Passerella iliaca insularis RIDGW. 1900.

Kadiak Island, Alaska, in summer; south to California in winter. Type taken at Kadiak Island, May 17th, 1868, by F. Bischoff. (*Ridgway* in *The Auk*, Vol. XVII., p. 30, 1900.)

585.2. **Yakutat Fox Sparrow.**

Passerella iliaca annectens RIDGWAY. 1900.

Coast of Alaska, from Cross Sound to Prince William's Sound; in winter south to California. (*Ridgway.*) Rather common at Cook's Inlet, Alaska, but very shy as usual, and hard to secure. Two specimens were taken at Hope and one at Tyonek but are not typical. (*Osgood.*) Three specimens taken at Homer and on Kenai Mountains in August, 1901. These birds agree with June specimens of *annectens* from Yakutat Bay. (*Chapman.*) This species was taken in April, 1893, at Victoria, Vancouver Island, by Mr. Spreadborough.

MUSEUM SPECIMEN.

One, taken at Victoria, Vancouver Island, April 28th, 1893, by Mr. Spreadborough.

585.3. **Townsend's Sparrow.**

Passerella iliaca townsendi (AUDUBON) RIDGWAY. 1901.

Coast district of southern Alaska (islands and coast of mainland) from southern side of Cross Sound, Lynn Canal, etc., to north side of Dixon Entrance; in winter south to northern California. (*Ridgway*.) But very little is known of this bird's habits, and nothing of its nesting. There are four specimens in the National Museum collection from Sitka, and the species undoubtedly occurs north along the mainland coast. (*Nelson*.) Port Althorp, George Island, Alaska, June 19th, 1880. (*Bean*.) Common on tall-grass on St. Lazaria Island, near Sitka, Alaska, where half-fledged young were observed on June 15th, 1898. (*Grinnell*.) One individual was seen at Skagway and several noticed at Glacier, in the White Pass, June, 8-9, 1899. (*Bishop*.) Common on Queen Charlotte Islands, but exceedingly shy. Ten specimens in all were taken, but they are not identical with Sitka specimens, and perhaps should be considered intermediate between *townsendi* and *fuliginosa*. (*Osgood*.)

585.4. **Sooty Fox Sparrow.**

Passerella iliaca fuliginosa RIDGWAY. 1899.

Breeding in the coast district of southwestern British Columbia, including Vancouver Island. (*Ridgway*.) I have only found this bird west of the Coast Range in B. C. It is a common summer resident on Vancouver Island, where it breeds. (*Faunin*.) A common species in spring around Victoria, V. I. A marked peculiarity of this bird is its scraping among the leaves when feeding, just like a hen. While doing this it hops about with its tail elevated like a wren. It was seen late in June, 1887. (*Macoun*.) Regular summer visitor in British Columbia. (*Lord*.) Tolerably common migrant at Chilliwack, B.C.; breeding on the summits of the Coast Range. (*Brooks*.) Seen on Sea Island, near Vancouver, B.C., April 25th, 1894. (*E. F. G. White*.)

MUSEUM SPECIMENS.

Two; one taken at Victoria, Vancouver Island, in April, 1887, and the other at Comox, V.I., in May of the same year by Prof. Macoun.

585c. **Slate-colored Sparrow.**

Passerella iliaca schistacea (BAIRD) ALLEN. 1872.

Quite common at Banff, Rocky Mountains in May and June, 1891, where they were evidently breeding; rare at Penticton, B.C., in April, 1903; one specimen of this form was seen at Rossland, B.C., in June, 1902; one female was shot at Revelstoke, B.C., April 25th, 1897. (*Spreadborough.*) Taken at Nelson, on Kootanie River, B.C., and two intermediates from further west. (*Rhoads.*)

MUSEUM SPECIMENS.

Eight; five taken at Banff between May 15th and June 16th, 1891; two taken at Penticton, B.C., April 21st, 1903, and one at Edmonton, Alta., May 5th, 1897, by Mr. Spreadborough.

CCVII. **PIPILO** VIEILLOT. 1816.587. **Towhee.**

Pipilo erythrophthalmus (LINN.) VIEILL. 1824.

Audubon, Vol. III., p. 168, states that it occurs northward to Labrador. (*Packard.*) Accidental in New Brunswick; one shot at Irishtown, May 8th, 1881. (*Chamberlain.*) Cap Rouge, near Quebec, obtained by Mr. Nelson. (*Dionne.*) A few seen and one taken at Ottawa in August, 1890. (*F. A. Saunders.*)

This bird breeds commonly in the county of Leeds, near Lansdowne, Ont. I have found the nest in a small thick hemlock about 18 inches above the ground on the 19th May, and on the ground, with four eggs, as early as the 6th May. It appears usually to raise a second brood. In eastern Ontario it resorts to the same kind of location as the fox sparrow frequents on the Magdalen Islands, preferring second growth woods and old clearings grown up with brambles and brush. It has a preference for broken uneven ground. It arrives about the middle of April and is one of the last birds to leave in the fall, I have seen it as late as the end of September. (*Rev. C. J. Young.*) First seen at

Port Sydney, Muskoka, by Mr. Kay, in 1887; they bred there in 1891; reported rare at Beaumaris in 1897 by Mr. Tavernier. (*J. H. Fleming.*) Fairly common summer resident at Guelph, Ont. Arrives about April 20th and leaves about October 8th. (*A. B. Klugh.*) Common summer resident about London, Ont., arriving early, sometimes in March, and averaging April 16th. Although so common at London it is much less so in north Bruce, although it appears to be more common now in that district than it was 10 years ago. The nests are placed both on the ground, in shrubs, and occasionally in brush heaps. Two broods are often reared in a season usually consisting of four in the first and three in the second. (*W. E. Saunders.*) This is one of the species which apparently enters Ontario from the southwest, for on looking at the dates of its arrival at London and Chatham we find it is always there before it reaches Hamilton, while at Ottawa Mr. White has not met with it all. (*McIlwraith.*) A common summer resident at Penetanguishene, Ont. (*A. F. Young.*)

A common summer resident in sheltered scrub lands in southern Manitoba and northwest to Carberry. (*Thompson-Seton.*) This bird was not uncommon about Pembina, where it was breeding in June. A nest was taken July 11th containing two eggs that belonged in it, together with *three* that did not, having been deposited by the cowbirds. (*Coues.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection in 1885; one taken at Ottawa in August, 1890, by Mr. F. A. Saunders; one taken at Toronto by Mr. S. Herring; and one taken at London, Ont., by Mr. W. E. Saunders, May 1st, 1892.

Two sets of eggs; one of four taken at Toronto June 1st, 1890, by Mr. W. Raine; and one of four eggs taken at Komoka, Ont., June 8th, 1894, by Mr. W. E. Saunders. Nest composed of grass and weeds lined with hair, placed on a knoll covered with growing plants.

588. **Arctic Towhee.**

Pipilo maculatus arcticus (SWAINS.) COUES. 1872.

Along the 49th parallel this form becomes established at least as far east as the Mouse (Souris) River, where I secured a specimen in September. On the boundary they were not met with

again until the Rocky Mountains were reached. (*Coues.*) First saw one at Medicine Hat, Assa., May 3rd, 1894; by the 12th they were common in low scrub along the Saskatchewan and the creeks leading into it. They were also common on the east end of the Cypress Hills at the end of June. This species was met with in brush from Old Wives' Creek, Assa. to Wood Mountain, and south to Rocky Creek, and Medicine Lodge; it was found to be quite common in all the wooded ravines of the Cypress Hills; a nest was taken at Farewell Creek, June 28th, 1895; it was common in Milk River valley and along the St. Mary's River. (*Macoun.*) This handsome ground finch was observed only on the plains of the Saskatchewan, where it no doubt breeds, as one specimen was killed late in July; it arrives in the end of May and frequents shady and moist clumps of wood, being generally seen near the ground. (*Richardson.*)

BREEDING NOTES.—Breeds sparingly in northwest Assiniboia and northern Alberta; two sets of four eggs were taken at Fort Saskatchewan, Alta., by Mr. J. Callaghan, on June 12th, 1898; nests made of roots and grass and built in a low shrub a few inches above the ground at the side of a coulee. (*W. Raine.*) This species always builds on the ground or close to it; one nest was taken at Farewell Creek, Cypress Hills, Assa., June 26th, 1895, on the slope of the bank, under a willow root in a thicket; another was taken the next day also from the ground in the open but this was under the roots of *Symphoricarpus occidentalis*; the nests were chiefly built of bark and grass and lined inside with hair; each nest contained four eggs. (*Macoun.*)

MUSEUM SPECIMENS.

Six; five taken at Medicine Hat, Assa., May, 1894, one at Old Wives' Creek, Assa., May 22nd, 1895, all by Mr. Spreadborough.

Two sets of eggs; one of four taken by Prof. Macoun in the Cypress Hills, June 26th, 1895, and another of five eggs taken at Lethbridge, Assa., June 5th, 1894; nests on the ground under bushes.

588a. **Spurred Towhee.**

Pipilo maculatus megalonyx (BAIRD) COUES. 1872.

At Pass Creek near Robson, Columbia valley, a strange bird was seen in a tree on June 20th, 1890; it had a very long tail and

was new to us; the next day it was seen again and we decided it was a towhee; on the 26th Prof. Macoun flushed a bird off its nest under a bush of *Ceanothus velutinus* and he immediately shot it. The male then came along and was shot also; they proved it to be this form; within the nest were four half-grown young which we drowned. Common everywhere at Trail, B.C., in low bushes, young ready to fly, June 1st, 1902; common in low brush at Penticton, south of Lake Okanagan, B.C., April, 1903; also at Sicamous and Enderby, B.C. (*Spreadborough.*) An adult male and female taken at Ashcroft. (*Streator.*) East of Coast Range; breeds at Ashcroft. (*Fannin.*) Abundantly haunting the woodlands of all points visited in British Columbia up to 4000 feet. (*Rhoads.*)

MUSEUM SPECIMENS.

Fourteen; two taken at Robson, B.C., June, 1890, by Prof. Macoun; four taken at Trail, B.C., in May, 1902, four at Cascade, B.C. in June, 1902, and four at Penticton, B.C., April, 1903, all by Mr. Spreadborough.

588b. Oregon Towhee.

Pipilo maculatus oregonus (BELL) COUES. 1872.

Abundant on the coast at Hastings, on Burrard Inlet and at Port Heney and Agassiz on the Fraser River, in 1889; very abundant at Chilliwack and at Huntington on the International Boundary in 1902; abundant on Vancouver Island and on the islands in the Gulf of Georgia. (*Spreadborough.*) Abundant on the coast of British Columbia; breeds. (*Streator.*) An abundant resident west of the Coast Range; winters on the coast. (*Fannin.*) Common at Chilliwack; permanent resident. (*Brooks.*) Replacing *megalongyx* west of the Coast Range. Its exact counterpart in habits and habitat. (*Rhoads.*) Rather common around Vancouver and Stanley Park in July, 1895. (*E. F. G. White.*)

MUSEUM SPECIMENS.

Nineteen; two taken at Agassiz, B.C., May, 1889, three at Port Heney, Fraser River, B.C., April, 1889, six at Chilliwack, B.C., in May and June, 1901, five at Huntington, B.C. in October, 1901, two at Victoria, Vancouver Island, in April, 1893, and one at Comox, Vancouver Island, June 22nd, 1893, all by Mr. Spreadborough.

One set of three eggs taken by Prof. Macoun, May 3rd, 1889, at Hastings, B.C.

CCVIII. **CARDINALIS** BONAPARTE. 1837.

593. **Cardinal, Red-bird.**

Cardinalis cardinalis (LINN.) LICHT. 1854.

Two were seen, a male and a female at Scotch Lake, York Co., N.B., Aug. 20th, 1900. (*W. H. Moore.*) The cardinal can only be regarded as a casual visitor along our southwestern border. Mr. Norval reports one or two being found near Port Rowan and Dr. Macallum mentions that a few are seen every summer along the lake shore south of Dunnville, where they are supposed to breed among the evergreens. (*Mellwraith.*) A fine male specimen of this species in the museum of Toronto University is labelled "Weston, Ontario," a northwestern suburb of Toronto. (*Thompson-Seton* in *Trans. Can. Institute*, Vol. I., p. 55, 1890.)

In September I spent four days, 17th to 21st, in company with my cousin Mr. H. H. Keays, at Point Pelee, collecting. Nearly every day of our stay the fishermen gathered around our camp fire, apparently much interested in us as strangers, and in our work. After telling us of the strange birds they had seen on the point (their descriptions of which were usually too complicated for us to make more than a guess at the species) one of them asked us of a bird that made its appearance about four years ago and had since been quite common, stating that it was a splendid whistler, and that an old lady living in the vicinity had caught a number of them and sold them for cage birds, catching them in a cage trap and using the first one taken as a decoy for more. From his description we concluded that it must be the cardinal (*Cardinalis cardinalis*), and sure enough, on the following day, we secured one, a young male in moulting plumage. Twice afterwards we heard near our camp, just at dawn, the call note of what we decided must have been this bird. Without doubt the cardinal has come to stay at Point Pelee, nor could they select a more suitable place, the cape being quite plentifully covered with red cedar, and the weather in fall remaining mild longer than on the mainland, on account of its proximity to the lake, as is evident by our having no frost during our stay, while on our return we noticed the corn well bleached on the mainland. It is

to be hoped, however that it will not restrict its range to the point nor to the shore of Lake Erie in Ontario, as this bright plumaged bird will make an acceptable addition to our fauna. Inland we have but few records of stragglers, which in the vicinity of London are as follows: One shot at St. Thomas, spring of 1890, by Mr. O. Foster; one taken in a cedar swamp a mile from London, Nov. 30th, 1896, this being the first record for Middlesex Co., and which is made complete as far as I am able to ascertain by a second at Kilworth by Mr. John Thompson, Nov. 17th, 1899, both these birds being males. The Rev. C. L. Scott reports one shot near Aylmer, Elgin Co., about October, 1900. From Guelph one is reported by Mr. F. N. Beattie as spending the winter of 1899 around his place. Other reports come from Chatham and Rondeau, all of single specimens, and apparently stragglers. (*J. C. Keays in The Auk*, Vol. XIX., p. 204.) On Feb. 14th, 1901, I procured a female cardinal grosbeak at Penetanguishene, which I sent to Mr. Jas. H. Fleming, of Toronto, about the same time a male was taken near Toronto. (*A. F. Young*.) Between November 20th and 27th, 1902, a male was seen about Rusholme Road, Toronto; and one was taken in Toronto, in February, 1900. (*J. H. Fleming*.)

MUSEUM SPÉCIMEN.

One specimen purchased with the Holman collection in 1885. Said to have been taken in southwestern Ontario.

CCIX. **HABIA** REICHENBACH. 1850.595. **Rose-breasted Grosbeak.**

Habia ludoviciana (Linn.) Stejn. 1848.

Met with only once near Baddeck, Cape Breton Island. (*Dwight*.) Not common about Halifax, but frequent in the vicinity of Truro and Pictou, N.S. (*Downs*.) Taken at Beauport; rather rare around Quebec. (*Dionne*.) A very rare summer resident near St. John, N.B. (*Chamberlain*.) Seen from May to November at Scotch Lake, York Co., N.B.; breeds here; a family was seen passing south, August 16th, 1901. (*W. H. Moore*.) A common transient visitor around Montreal, but evidently goes further north to breed; I have only observed it here in spring, so I infer it returns south by another route. (*Windle*.)

A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A few of these handsome birds remain to breed in the county of Leeds, Ont.; I have twice seen the nest; once on the 9th June in a small beech tree; the eggs were just hatching; again in the middle of June a nest with three eggs in a maple sapling about ten feet from the ground. (*Rev. C. J. Young*.) A common summer resident in the districts of Parry Sound and Muskoka, breeding usually in second growth hardwood. (*J. H. Fleming*.) Rather uncommon summer resident in Algonquin Park, Ont. (*Spreadborough*.) Formerly common all over western Ontario; now it is more so in the north than in the south where it has probably been killed off to a certain extent. (*W. E. Saunders*.) Fairly common summer resident at Guelph, Ont.; arrives about May 10th and leaves about September 1st. (*A. B. Klugh*.) A breeding summer resident at Penetanguishene, Ont. (*A. F. Young*.)

Common summer resident in Manitoba, in thickets; breeds throughout the province in suitable localities. (*Thompson-Seton*.) Only one specimen at Indian Head, Assa., on May 26th, 1892. First saw three females at Medicine Hat, Assa., May 17th, 1894, later saw two males; a few pairs bred in the river valley; late in June a few were seen in the Cypress Hills; taken at Old Wives' Creek and seen at Wood Mountain Post, Assa., in July, 1895; was seen on the islands in St. Mary's River, Alta. (*Spreadborough*.) A specimen of this bird was obtained near the Saskatchewan on Sir John Franklin's first expedition, but we had not the good fortune to meet with it on our second journey. (*Richardson*.) First seen at Edmonton, Alta., May 15th, 1897; found a nest in an alder bush about ten feet from the ground, nest a very slight affair, in fact, I could see the eggs quite through it; it was just a few sticks placed in the fork of a bush. Eggs three; the male was sitting on the eggs; common in the poplar woods from Edmonton to the McLeod River; common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, June, 1903. (*Spreadborough*.) Common from Lesser Slave River down the Athabasca River to Fort McMurray, Lat. $56^{\circ} 40'$; not rare up the Clearwater River to Methye Portage. (*J. M. Macoun*.) Rare near Prince Albert, Sask., only a few seen during the summer; probably breeds in the country. (*Coubeaux*.)

BREEDING NOTES.—I was pleased to find this truly elegant bird breeding in abundance at Pembina in the undergrowth of the heavy timber along the banks of the Red River, as I had never before enjoyed a good opportunity of studying its habits. It was not observed at any other point along the line, though stated to penetrate as far northward as the Saskatchewan region; a fine suite of specimens was carefully preserved, and several sets of eggs procured; the birds were mating and in full song by the beginning of June, when I arrived upon the spot, but no nests were found until the 21st; four was the largest number found in a nest; others contained only two or three, but in all incubation had begun; the only nest I took myself was built in a thick grove of saplings, about eight feet from the ground; it contained three eggs averaging an inch in length by three-fourths in breadth; these were of a pale dull green colour, profusely speckled with reddish-brown; the nests were rather rude and bulky structures, about six inches across outside by four in depth, with the cavity only half as much each way, owing to the thickness of the loose walls; they were built entirely of the slender tortuous stems and rootlets of some climbing shrub, for the most part loosely interlaced, though more firmly, evenly, and circularly laid around the brim, and finished sometimes with a little horse-hair lining, sometimes without; the male at this season has a delightful song; the female is, however, nearly voiceless, and of an extremely retiring disposition. (*Coues.*)

Nests near Ottawa about ten feet from the ground in trees; the nest is built with small twigs or branches loosely put together and lined with hair-like roots. One nest with four eggs found on June 6th, 1875, and another containing three eggs found on May 31st, 1902. (*Garneau.*) This species breeds commonly about Sharbot Lake, Frontenac Co., Ont., I have seen three nests this month near the road in low ground; they build a loose nest of twigs, &c., lined with rootlets and fibres placed eight or ten feet from the ground; the eggs were laid the first week in June. (*Rev. C. J. Young.*) The nest of this species taken at Ottawa was built in a low bush a few feet from the ground; it was a bulky and rude affair built of weed-stems and stout rootlets; it was lined with a little horse-hair and some fine rootlets; eggs, three, pale green, speckled with reddish brown. (*G. R. White.*)

MUSEUM SPECIMENS.

Nine; three taken at Ottawa in May, 1888, by Prof. Macoun; one purchased with the Holman collection in 1885; three at Medicine Hat, Assa., in May, 1894, one taken June 28th, 1903, at Peace River Landing, and one at Edmonton, Alta., May 18th, 1897, all by Mr. Spreadborough.

Two sets of eggs; one of four eggs taken at Farrelton, Que., June 18th, 1893, by Mr. A. G. Kingston; one set of three taken at Edmonton, Alta., May, 29th, 1897, by Mr. Spreadborough.

596. **Black-headed Grosbeak.**

Habia melanocephala (SWAINS.) STEJN. 1884.

Not uncommon through British Columbia to the coast; heard in the woods at Revelstoke, B.C., May 26th, 1890; breeding in the valley of Pass Creek at Robson, B.C., June, 1890; a female shot on May 31st. Only observed a pair, which were breeding, near Trail in the summer of 1902. A rare species at Spence's Bridge, B.C.; seen at Hastings and Agassiz in the Fraser River valley, where it was not uncommon in May, 1889; abundant at Chilliwack in the spring of 1901; a few seen later at McGuire's a few miles up the river. (*Spreadborough.*) A common summer resident on Vancouver Island at Victoria and Comox; nests were taken at Lost Lake, near Victoria, May 21st, 1887, they were placed in the crotches of *Pirus rivularis*; at Nanaimo a nest found in *Prunus emarginata*. (*Macoun.*) Common summer resident of the coast region; breeds; arrived about May 1st. (*Streator.*) A summer resident east and west of the Coast Range. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Breeding at Agassiz, B.C., May 14th, 1897. (*E. F. G. White.*)

MUSEUM SPECIMENS.

Eleven; three taken at Trail on the International Boundary, B.C., in June, 1902, one at Agassiz, B.C., May 13th, 1889, three at Chilliwack, B.C., in May, 1901, two at Victoria, Vancouver Island, June, 1893, and one at Comox June 20th, 1893, all by Mr. Spreadborough.

One set of three eggs taken at Lost Lake, near Victoria, V.I., in May, 1887, by Prof. Macoun.

CCX. **GUIRACA** SWAINSON. 1827.597. **Blue Grosbeak.***Guiraca caerulea* (LINN.) SWAINS. 1827.

One specimen shot at Four-mile House, near Halifax, N.S. (*Downs.*) On the 7th May, 1862, both sexes of this bird were noticed at Mille Vaches, lower St. Lawrence, Que., by Mr. Peverley, Sr.; they were accompanied in the same tree by the little indigo bunting. (*Couper* in *Can. Nat.*, Vol. VII., 1862.)

CCXI. **CYANOSPIZA** BAIRD. 1858.598. **Indigo Bunting.***Cyanospiza cyanea* (LINN.) BAIRD. 1858.

Apparently rare at St. John, N.B.; but said to be common on the western side of Nova Scotia. (*Chamberlain.*) Have only seen one pair at Scotch Lake, York Co., N.B. That was in June, 1900. (*W. H. Moore.*) Taken at Charlesbourg, near Quebec; rather rare in the vicinity of Quebec. (*Dionne.*) A common summer resident in the Montreal district. Breeds in Mount Royal park. I have found their nests with eggs from June 18th to July 13th, and observed them here from May 11th to August 13th. (*Windle.*)

A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A common summer resident in the counties of Leeds and Renfrew, where it usually makes its nest about the middle of June in a raspberry thicket. (*Rev. C. J. Young.*) A fairly common summer resident in the districts of Parry Sound and Muskoka. It arrives later than most species. (*J. H. Fleming.*) Common summer resident at Guelph, Ont. (*A. B. Klugh.*) Common in all suitable localities both in the western and northern extremities of the western peninsula of Ontario. (*W. E. Saunders.*) A rare and transient visitant at Penetanguishene, Ont. (*A. F. Young.*)

BREEDING NOTES.—The nests taken at Ottawa were placed in low bushes, and were large for the size of the bird. It is composed of grass, leaves and weed-stalks, lined with fine grass. Eggs 4 or 5, white, tinged with blue; some eggs are speckled with reddish-brown. (*G. R. White.*) This bird breeds sometimes at

Ottawa, but more frequently in Montreal in June, also at Lake Nomingue, 100 miles north of Ottawa, in July. Nest in a fork in a bush two or three feet from the ground, made of dried leaves and lined with fine grass or hairs. Eggs in the set three or four of a pale blue colour. (*Garneau.*)

MUSEUM SPECIMENS.

Three; taken at Ottawa in May, 1888, by Prof. Macoun.

Two sets of four eggs each, both taken by Mr. W. Raine, one at Toronto, June 1st, 1889, and one at Stratford, Ont., May 29th, 1890.

596. **Lazuli Bunting.**

Cyanospiza amana (SAY) BAIRD. 1858.

This species was found in the Bow valley from the foothills at Morley upto Banff in the Rocky Mountains, but although often seen was not common in the summer of 1891; common at Trail on the Columbia and at Cascade in low bushes on the hillsides in June and July, 1902; found at Kamloops and Spence's Bridge, B. C. in abundance in June, 1889; two pairs were seen at Agassiz on May 13th, the same year, one specimen seen at Chilliwack, B.C., May 23rd, 1901; shot a female at Comox, Vancouver Island, June 23rd, 1893, the only one seen; one seen at lake near Victoria, Vancouver Island, May 15th, 1887. (*Spreadborough.*) This beautiful bird is abundant between the Coast Range and the Rockies, but does not extend further north than Bonaparte River which is north of Ashcroft in British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Nine; four taken at Trail, B.C., May and June, 1902, three at Spence's Bridge, B.C., May, 1889, one at Kamloops, B.C., June 23rd, 1889, and one at Comox, Vancouver Island, June 23rd, 1893, all by Mr. Spreadborough.

CCXII. **SPIZA** BONAPARTE. 1824.604. **Dickcissel.**

Spiza americana (GMEL.) RIDGW. 1880.

Since the irruption of this species into eastern and central Ontario in 1895, recorded in the *Ottawa Naturalist*, of that year

none have been observed near London; this species, however, is a steadily common breeder in the west, all over the country south of Lake St. Clair and becomes less numerous and more southern as one comes east; the three nests so far recorded in Ontario were all on the ground, though it is often placed higher in the prairie states; the four or five blue eggs have a striking resemblance to those of the bluebird. (*W. E. Saunders.*) On June 14th, 1897, while doing some miscellaneous collecting near the big slough at Portage la Prairie, Man., a strange bird flushed out of the grass and alighted on a fence-post; I immediately secured it and was very surprised to discover that I had collected a fine male black-throated bunting; no others were seen. (*Geo. E. Atkinson.*) One individual taken on Sable Island, N.S., Sept. 12th, 1902. (*James Bouteillier.*)

MUSEUM SPECIMEN.

One specimen purchased with the Holman collection in 1885.

CCXIII. **CALAMOSPIZA** BONAPARTE. 1838.605. **Lark Bunting, White-winged Blackbird.**

Calamospiza melanocorys STEJN. 1885.

The apparent absence of this species from the Red River region with its abundance on the Missouri is one of the strong marks of difference in the fauna of the two watersheds. It is an abundant and characteristic species of the sage-brush country of the upper Missouri and extends thence to the Rocky Mountains through the Milk River region. The bird is rather a late breeder unless the eggs found July 9th and 21st were those of a second brood. The eggs are four or five in number, like those of the blue-bird and normally unmarked, though occasionally sparsely dotted. Two cow-bird's eggs were found in one of the nests secured. The nest is sunk in the ground so that the brim is flush with the surface, and is built of grass and weed-stalks, lined with similar but finer material. (*Coues.*) A probable summer resident of southwestern Manitoba. (*Thompson-Scton.*) Occasionally seen east of Crane Lake, but in its neighbourhood they were quite common and breeding late in June, 1894. They always placed their nests on the ground under sage brush (*Artemisia cana*); this they did in all parts of the prairie region where they were found. In 1895 they were found in some numbers at

12-Mile Lake, near Wood Mountain, Assa., in sage flats; fifty miles further west on Frenchman's River, in sage flats, they were again numerous and breeding under sage brush; at East End Post, Cypress Hills, Assa., it was again noticed; also at Farewell Creek, and lastly at Sucker Creek, west end of Cypress Hills where there was a flock of over thirty; they always nested in the sage brush and lived in colonies; one individual was shot at Banff, Rocky Mountains in May, 1891. (*Spreadborough*.) I never saw this bird in Manitoba but it is not at all scarce in western Assiniboia and Alberta. I found its nest at Rush Lake and Crane Lake, Assa. It makes its nest in the grass and lays 4 pale blue eggs. This species and McCown's longspur are two of the sweetest songsters on the prairie. (*W. Raine*.)

MUSEUM SPECIMENS.

One taken at 12-Mile Lake, Assa., June 6th, 1895, and one taken at Crane Lake, Assa., June 10th, 1894, both by Mr. Spreadborough.

FAMILY XLIV. **TANAGRIDÆ**. TANAGERS.-CCXIV. **PIRANGA** VIEILLOF. 1807.607. **Louisiana Tanager.**

Piranga ludoviciana (WILS.) RICHARDSON. 1837.

Fort Chipweyan, Lake Athabasca, Atha. (*Ridgway*.) Abundant at Athabasca Landing, 90 miles north of Edmonton, and up the Athabasca to Lesser Slave River. A few were seen down the Athabasca to Fort McMurray, Lat. $56^{\circ} 40'$. (*J. M. Macconn*.) Common from the mouth of Lesser Slave River to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; first seen May 8th, 1897, at Edmonton, Alta.; after this date they became common and soon began to breed; common from Edmonton to Yellowhead Pass in June, 1898; common in the foothills from Calgary to Crow's Nest Pass; not very common at Banff, 1891, but breed in the Bow River valley from the "Gap" inwards. They are found all through the mountains, but seem to be most abundant in the Columbia valley both east and west of the Selkirks. Very common at Revelstoke, Deer Park and Robson, in the Columbia valley; apparently breeding in tall trees as no nests were taken although many birds were seen; also taken west of the Eagle

Pass in the Gold Range; occasional in woods at Spence's Bridge and Kamloops, also at Agassiz and Westminster Junction in 1889; abundant at Chilliwack; a few seen at McGuire's, and two observed on the International Boundary at Huntingdon in 1901; a common summer resident throughout Vancouver Island. (*Spreadborough.*) Abundant summer resident everywhere. (*Streator.*) An abundant summer resident throughout the province; breeds on Vancouver Island and mainland. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Fairly abundant and uniformly distributed over the coasts, mainland and islands of British Columbia. (*Rhoads.*)

BREEDING NOTES.—Mr. G. F. Dippie and myself have both received eggs and skins of this bird from Red Deer, Alta.; on June 3rd, 1898, Mr. Wenman found a nest on the Red Deer River, it contained four eggs and was built in a poplar five feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-seven; one taken at Athabasca Landing, Atha., May 29, 1888, by Mr. J. M. Macoun; three at Edmonton, Alta., in May, 1897, one taken at Canmore, Rocky Mountains, May 25th, 1891, two at Banff, Rocky Mountains, June, 1891, four at Revelstoke, B.C., in May, 1890, two at Deer Park, B.C., June, 1890, three at Trail, B.C., May and June, 1902, one at Spence's Bridge, B.C., May 31st, 1889, two at Agassiz, B.C., May, 1889, five at Chilliwack, B.C., in May, 1901, two at Huntington, B.C., in September, 1901, and one at Comox, Vancouver Island, June 20th, 1893, all taken by Mr. Spreadborough.

608. **Scarlet Tanager.**

Piranga erythromelas VIEILL. 1819.

A few occur in the spring in Nova Scotia. (*Downs.*) A very rare summer resident in New Brunswick; has been taken at the Grand Falls of the St. John. (*Chamberlain.*) A rare summer visitor at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Lorette; a rare summer visitor around Quebec. (*Dionne.*) A transient visitant, but common around Montreal; I have not seen it in the autumn. (*Wintle.*)

Moderately common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) This handsome bird occasionally breeds near

Lansdowne, Ont., and I suppose in the county of Renfrew, where I have seen it in summer; I once found a nest in June, 1899, built in a bushy second growth maple about seven feet from the ground, not far from the Grand Trunk Railway at Lansdowne. (*Rev. C. J. Young.*) A common summer resident in the districts of Parry Sound and Muskoka; breeds in hardwood bush. (*J. H. Fleming.*) Not rare in Algonquin Park, Ont. in summer. (*Spreadborough.*) A common summer resident in Middlesex and North Bruce, Ont. (*W. E. Saunders.*) Fairly common summer resident at Guelph, Ont.; arrives about May 12th, leaves about September 15th. (*A. B. Klugh.*) A common and breeding summer resident at Penetanguishene, Ont. (*A. F. Young.*) Not uncommon in eastern Manitoba; known to breed on the shores of the south end of Lake Winnipeg; has been seen as far west as Qu'Appelle in eastern Assiniboia. (*Thompson-Scton.*)

BREEDING NOTES.—Nest at Ottawa on the horizontal bough of a tree; it is a rather large affair, composed of twigs, fibres and rootlets, lined with fine grass. Eggs, 4, of a dull greenish blue, spotted with lilac and brown. (*G. R. White.*)

MUSEUM SPECIMENS.

Four; two taken at Ottawa in May, 1888, by Prof. Macoun; one taken in Algonquin Park, Ont., May 31st, 1900, by Mr. Spreadborough; one taken at London, Ont., May 27th, 1888, by Mr. W. E. Saunders.

One set of four eggs taken north of Toronto, May 24th, 1897, by Mr. W. Raine.

610. Summer Tanager.

Piranga rubra (LINN.) VIEILL. 1807.

One or two specimens of this species have been taken in the spring in Nova Scotia. (*Downs.*) On the island of Grand Manan, N.B.; one specimen taken in May, 1881. (*Batchelder.*) A rare transient visitant in the district of Montreal. Mr. Kuetzing says eight examples of this species have been shot on the island of Montreal. I believe I saw one at St. Bruno on May 25th, 1885, but it disappeared too quickly to be sure of it. (*Windle.*) After many years looking for its occurrence Mr. McIlwraith obtained one specimen near Hamilton in May, 1885. [See Birds of Ontario,

page 335.] A few specimens seen at Listowel, Perth Co., Ont., in the spring of 1892. (*W. L. Kells*, in *Trans. Can. Inst.*, Vol. III, p. 70.)

MUSEUM SPECIMENS.

One specimen taken at Scarboro' Heights near Toronto, by Mr. Herring, in May, 1890.

One set of four eggs taken at Chatham, Ont., July 1st, 1897, by Mr. W. Raine.

FAMILY XLV. **HIRUNDINIDÆ**. SWALLOWS.CCXV. **PROGNE** BOIE. 1826.611. **Purple Martin.**

Progne subis (LINN.) BAIRD. 1865.

A very rare species in Newfoundland, only one shot at Daniel's Harbour. (*Reeks*.) A few seen in the spring at Halifax, but more common at Windsor, N.S. (*Downs*.) Common at Truro and Amherst, N.S., in the spring of 1901. (*C. R. Harte*.) A few pairs breeding at Brackley Point, Prince Edward Island, June, 1888. (*Macoun*.) Uncommon summer resident at St. John, N.B., but quite common at Hampton and Westfield. (*Chamberlain*.) A tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Observed at Point du Chene, N.B., where a colony occupied a martin's box in the village. (*Brewster*.) A common summer resident around Quebec. (*Dionne*.) A common summer resident at Montreal; breeds in the city. (*Wintle*.)

A common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) This bird breeds readily in bird boxes placed against a house as well as under the eaves of buildings and similar places. It is common in Leeds, Lanark and Renfrew counties, but seems to be decreasing in numbers. (*Rev. C. J. Young*.) Reported as increasingly common at Bracebridge, and in the settled parts of Muskoka by Mr. Tavernier. (*J. H. Fleming*.) A few breed in the cities, and an odd pair in some of the villages around Guelph; arrives about May 10th and leaves about August 1st. (*A. B. Klugh*.) A common summer resident at Penetanguishene, Ont. (*A. F. Young*.) Rare summer resident in Manitoba; breeding in pairs but seldom in numbers; have been taken breeding on Lake Manitoba. (*Thompson-Seton*.) I was rather surprised to find martins

breeding at Turtle Mountain, on the 49th parallel, having observed none at Pembina. (*Coues.*) First seen at Indian Head, Assa., May 24th, 1892, they soon become tolerably common and remained, breeding in hollow trees; first arrivals at Medicine Hat, Assa., May 16th, 1894, breeding in the river valley in old trees; observed two at the crossing of the McLeod River, north of Edmonton, June 19, 1898; tolerably common in the streets at Victoria, Vancouver Island; first seen May 8th, 1893 and on May 28th, 1887; observed several in the dead woods north of Peace River, near White Mud River, Lat. $56^{\circ} 20'$ in June, 1903. (*Spreadborough.*) Not uncommon but local near Prince Albert, Sask.; noted breeding every year in great numbers in the dead trees of a willow and poplar thicket among marshes. (*Coubeaux.*) Only one specimen, a male taken at Victoria, being secured, it is difficult to state if it belongs to the eastern or western form. (*Rhoads.*) Common in the vicinity of Vancouver, B.C., and breeding in numbers in 1894. (*E. F. G. White.*)

BREEDING NOTES.—I observed this species June 29th, 1886, nesting in the city, in a bird house placed on top of a pole erected on a shed in rear of St. Joseph Drug Hall, No. 2241, Notre Dame street, where they are said to breed twice a year, in the months of April and June; I have not noticed the purple martin breeding in any other place within the city, but I dare say they do breed in other yards where they are encouraged to nest. (*Windle.*) At Ottawa this species builds in holes in trees or in boxes in the city. The nest is composed of hay, straw, bits of twine and paper; lined with feathers; eggs, 4 or 5, pure, glossy white. (*G. R. White.*) Breeds all over central and western Ontario, making its nests in holes under the eaves of buildings; in northern Assiniboia it makes its nest in holes in trees like the tree swallow; nest taken at Yorkton, Assa., June 1st, 1901; on this day I found a purple martin sitting on five eggs in a hole in an old stub five feet from the ground; the bird allowed me to lift her off the eggs and I threw her into the air and she flew away; the following day I again found her sitting upon the eggs; later I found other nests around Crescent Lake. (*W. Raine.*)

MUSEUM SPECIMENS.

Five; one purchased with the Holman collection in 1885; one taken at Ottawa in May, 1888, by Prof. Macoun; one taken at Indian Head, Assa., May 30th, 1892, and two at Medicine Hat, Assa., in May, 1894, by Mr. Spreadborough.

One set of four eggs taken at St. Thomas, Ont., June 19th, 1898, by Mr. Frank L. Farley.

CCXVI. **PETROCHELIDON** CABANIS. 1850.

612. **Cliff Swallow.**

Petrochelidon lunifrons (SAY) CASSIN. 1853.

A rare summer migrant in Newfoundland. (*Recks.*) Common summer resident at Halifax, N.S. (*Downs.*) Common at Sydney, Cape Breton Island, breeding locally. (*C. R. Harte.*) Abundant in some localities, especially at Margaree, Cape Breton Island, July, 1898; rather common, flying over the marshes at Brackley Point, Prince Edward Island, July, 1888. (*Macoun.*) A common bird on Prince Edward Island; locally distributed and nesting in colonies under the eaves of barns and houses. (*Dwight.*) An abundant summer resident in town and country in New Brunswick. (*Chamberlain.*) A summer resident at Scotch Lake, York Co., N. B. (*W. H. Moore.*) I found a small colony nesting under the eaves of a shed at Port Hawkesbury, Cape Breton Island. (*Brewster.*) Taken at Beauport; a common summer resident around Quebec. (*Dionne.*) Common summer resident at Montreal. Breeds on the Island of Montreal. Observed from April 19th to September 4th, 1893. (*Windle.*)

Common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common in all parts of eastern Ontario. (*Rev. C. J. Young.*) Formerly abundant about London, Ont., but now restricted and found on but very few farms, though when protected as many as fifty pairs are yet known to breed on one barn. (*W. E. Saunders.*) Breeds in large colonies at a few barns in the vicinity of Guelph, Ont. Arrives about May 15th, leaves about August 17th. (*A. B. Klugh.*) An abundant summer resident at Penetanguishene, Ont. (*A. F. Young.*)

This is the most abundant, generally distributed and characteristic species of the swallow family throughout the region along the 49th parallel from Pembina to the Rocky Mountains. The laying season in this latitude is at its height during the second and third weeks of June. (*Cones.*) Very abundant summer resident in Manitoba; at Brandon, Fort Ellice and Shoal Lake, in 1882, they were breeding in very large numbers, having placed

their nests under the eaves and gables of barns and houses. (*Thompson-Seton.*)

First observed at Indian Head, Assa., on May 24th, 1892; they soon became common and bred in large numbers in suitable places; this species reached Medicine Hat, Assa., May 22nd, 1894, and immediately began to build new and repair old nests; later they were found breeding under the eaves of all the water tanks along the Canadian Pacific Railway between Medicine Hat and Moose Jaw; at Crane Lake they were particularly abundant, building their nests in hundreds under the eaves of the farm buildings; no matter how often the nests were knocked down they were replaced by others; this species was seen in 1895 from Old Wives' Lakes throughout the whole prairie region across Assinaboia by Wood Mountain, Frenchman's River and the Cypress Hills; in Alberta it was abundant along Milk River, where it bred in large communities, as well as along Spur Creek, Sage Creek and Many Berries Creek; a common species in the Bow valley nearly up to Banff in the Rocky Mountains; very abundant along the Peace River, Atha., in 1903; first seen at Edmonton, Alta., May 13th, 1897; common by the 21st, and building their nests by hundreds in the town; saw a few nesting in the cut banks of the rivers between Edmonton and the Athabasca River in June, 1898. (*Spreadborough.*) A large number of old nests were noticed between Athabasca Landing and Lesser Slave River, Atha., but no birds were seen; we were very likely too early in the season. (*J. M. Macoun.*) First observed on May 30th, 1900, then in great numbers, building their nests in the town of Prince Albert, Sask. (*Conbeaux.*)

In the year 1820 this species was discovered by Major Long near the Rocky Mountains, and in the same year Sir John Franklin's party, on the journey from Cumberland House to Fort Enterprise, and on the banks of Point Lake in Lat. 65°, where its earliest arrival was noted, in the following year, to be June 12th. Its clustered nests are of frequent occurrence on the "barren grounds," and they are not uncommon throughout the whole course of the Great Slave and Mackenzie rivers. (*Richardson.*) North to Rat River on the Mackenzie; common. (*Ross.*) In 1856 about one hundred and fifty nests of this species were built, for the first time, at Fort Good Hope, on the Mackenzie River, and in 1866 one was seen examining the eaves of

the houses at Fort Anderson, but it did not remain. They, however, breed in large numbers along the banks of the Lockhart and Anderson rivers. (*Macfarlane.*) This bird from its nesting habits is precluded from being a resident on the Arctic Coast. It has been taken at Nulato and seems to be common at the trading stations along the Yukon. (*Nelson.*) Common in British Columbia. (*Lord.*) Common everywhere in the interior; breeds. (*Streator.*) I have only found this bird east of the Coast Range, where in some localities along the Cariboo road it is very abundant. (*Fannin.*) Rare at Chilliwack; may breed in the vicinity. (*Brooks.*) Abundant east of the Coast Range in British Columbia. (*Rhoads.*)

This species was common at Log Cabin, June 15th; at Cariboo Crossing, Lat. 60°, saw a few on June 29th, probably members of the small colony breeding on the cliffs of a small island in Tagish Lake. We next saw the species near Hootalingua River, July 19th, and from this point to Dawson in Lat. 64° 15' we frequently met with colonies of varying size, the largest being near White River. Their nests were attached to cliffs bordering the river, except at Fort Selkirk where they were breeding under the eaves of houses. (*Bishop.*)

BREEDING NOTES.—The nest of the cliff swallow is built of mud and is shaped like a bottle with the neck downward; it is lined with feathers, grass, leaves, string and bits of rag; eggs 4, white, spotted with reddish brown. (*G. R. White.*) At Amherst, N.S., the birds were common on June 5th, and under the Chignecto Ship Canal power house were the remains of many old nests, but no new ones; the watchman said they breed very erratically, some years in large numbers, others not at all; there were no nests under the eaves of barns. (*C. R. Harte.*) A covered nest of mud lined inside with grass and feathers, fixed on the outside wall of barns and sheds just under the roof; nests taken at Ottawa and Lake Nominigue, 100 miles north of it; a first sitting in May and a second in July in the usual procedure. (*Garneau.*)

MUSEUM SPECIMENS.

Six; one taken at Medicine Hat, Assa., May 25th, 1894, three at Banff, Rocky Mountains, June 19th, 1891, two at Spence's Bridge, B.C., in May, 1889, all by Mr. Spreadborough.

Five sets of eggs; two sets of four each taken at Skull Creek, Crane Lake, Assa., June 17th, 1894, by Mr. Spreadborough; one set of four taken at Port Hope, Ont., May 30th, 1900, and another set of five taken at Rush Lake, Assa., June 30th, 1893, both by Mr. W. Raine; one set of four taken at Port Hope, Ont., June 1st, 1900, by Mr. W. H. Meeking.

CCXVII. **HIRUNDO** LINN. 1758.

613. **Barn Swallow.**

Hirundo erythrogaster BODD. 1783.

Two specimens are known to have been obtained in Greenland; one at Fiskenæs about 1830, the other at Nenortalik. (*Arct. Man.*) Breeds at Northwest River at the head of Hamilton Inlet, Labrador. (*Packard.*) A rare summer migrant at Cow Head, Newfoundland. (*Recks.*) Common summer resident throughout Nova Scotia. (*Dorrens.*) Two individuals seen on Sable Island, N.S., April 30th, 1902, and one September 16th same year. (*James Boutellier.*) Very common at Amherst, N.S., June 5th, 1901; there were plenty of old nests, but no new ones at that date. (*C. R. Harte.*) Rather common on Cape Breton Island, 1898; common at Brackley Point, Prince Edward Island, 1888. (*Macoun.*) Abundant and generally distributed on Prince Edward Island. (*Dwight.*) Common summer resident through the country around St. John, N.B. (*Charberlain.*) Rare in the Restigouche valley, N.B. (*Brittain & Cox.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; common summer resident around Quebec. (*Dionne.*) A common summer resident at Montreal; breeds on the Island of Montreal; observed here from May 19th to August 20th. (*Wintle.*)

A common and abundant summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common in eastern Ontario. (*Rev. C. J. Young.*) An abundant summer resident in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Common in Algonquin Park, Ont.; a pair built in the boat-house at C ache Lake, eggs hatched on June 16th, 1900. (*Spreadborough.*) Common summer resident at Guelph, Ont.; arrives about April 20th, leaves about September 5th. (*A. B. Klugh.*) An abundant summer resident at Penetanguishene, Ont. (*A. F. Young.*) On the morning of August 13,

1901, while I was encamped at the mouth of a river on the "barren grounds," about 25 miles south of Cape Eskimo, on the west coast of Hudson Bay, a barn swallow that had evidently been following the course of the stream flew past the camp. When it reached the bay it turned southward and soon disappeared from sight down the coast. (*E. A. Prebles.*) I have no note of seeing this bird at Pembina, but during July and August they were observed at various points along the 49th parallel, nearly to the Rocky Mountains. (*Coues.*) A rare summer visitant in Manitoba, but breeding west of the province at Qu'Appelle. (*Thompson-Seton.*) First seen at Indian Head, Assa., on May 24th, 1892, they were common in a few days and breed in the vicinity; two males were the first arrivals at Medicine Hat, Assa., May 15th, 1894, building commenced on May 20th; at Crane Lake 100 miles to the east many pairs were breeding in the farm buildings early in June; late in the month they were found in old buildings at the east end of the Cypress Hills; one nest was found at Crane Lake, built on a stringer of a bridge across a small creek; in 1895 this species was seen on the prairie from Old Wives' Creek by way of Wood Mountain and Frenchman's River to the south side of the Cypress Hills; it was found in all the ravines of the Cypress Hills and a nest was taken at Sucker Creek in an old shack; it was also found on Spur Creek and was very common along Milk River, St. Mary's River and Lee's Creek to the foothills of the Rocky Mountains; two observed at the head of Lesser Slave Lake in June, 1903; common from Edmonton to Yellowhead Pass in June, 1898; occasionally seen in the foothills from Calgary southward to Crow's Nest Pass in July and August, 1897; a common species at Banff, Rocky Mountains, breeding in the barns and outhouses in the village in June, 1891; not seen in the Columbia valley except on the mountains on the west side of Pass Creek near Robson, B.C., June 26th, 1890; common at Kamloops, Spence's Bridge and Penticton, B.C.; specimens were taken at Westminster Junction, Agassiz and Hastings, Burrard Inlet, B.C., in 1889; abundant at Chilliwack in the spring of 1901; a few seen at Huntington, on the International Boundary in September; an abundant summer resident throughout Vancouver Island. (*Spreadborough.*) An abundant summer resident throughout British Columbia. (*Fannin.*) More plentiful east than west of

the Coast Range. (*Lord.*) Common everywhere; breeds. (*Streator.*) An abundant summer resident at Chilliwack, Fraser River valley, B.C. (*Brooks.*) Uniformly abundant throughout British Columbia up to 5,000 feet. (*Rhoads.*) Immense flocks late in the fall at Lulu Island in the lower Fraser River, B.C. (*E. F. G. White.*)

In the Northwest Territories, where the habitations of men are few and far between, it inhabits caves; particularly in the limestone rocks, and it also frequents the outhouses of the trading posts. When Fort Franklin was erected on the shores of Great Bear Lake, in the autumn of 1825, we found many nests in the ruins of a house that had been abandoned for more than ten years. At Fort Chipweyan in Lat. 59° the barn swallows arrive regularly about May 15th, and we observed them in the same month at Fort Good Hope, on the Mackenzie River, in Lat. $67\frac{1}{2}^{\circ}$. (*Richardson.*) North to Fort Resolution on Great Slave Lake; rare. (*Ross.*) A few barn swallows were always found about the numerous deserted Indian villages and their nests were frequently noticed on the big cedar beams which are the framework of the Haida houses on Queen Charlotte Islands. (*Osgood.*) This bird is the most common and widely distributed species of the swallows throughout the north. In Alaska it is found along the southeastern coast, extending thence over nearly the entire Aleutian chain, and north along the coast of the mainland to Kotzebue Sound, and thence east throughout the territory wherever suitable locations occur. (*Nelson.*) Breeding abundantly about the town of Sitka, Alaska, under the eaves of buildings; a few pairs found nesting on the cliffs on the islands out in the bay. This swallow was seen almost daily at Cape Blossom, Kotzebue Sound, Alaska; the species was seen on the upper Kowak and in the delta of that river in June. (*Grinnell.*) This bird arrives at St. Michael about June and as soon as the ground is thawed begins to build. (*Turner.*)

BREEDING NOTES.—The nest of this species is built of mud mixed with hay or straw and lined with fine grass and a thick bed of feathers. Eggs 5, white, spotted with reddish-brown. (*G. R. White.*) Not nearly so plentiful at Scotch Lake as *lunifrons*. Always building inside buildings. Eggs, from 4 to 6, placed in a soft feather-lined nest of mud and hay. Some pairs raise two broods in one season in the same nest. One pair abandoned the

second brood and went south, September 9th, 1901; the young died in the nest. (*W. H. Moore.*) I was told by missionaries that the swallows nested in the deserted Eskimo igloos, building their mud nests against the sides near the roof. On July, 1st, 1899, I found a barn swallow's nest built on a beam in the house of a small river steamer, stranded at the side of Mission Inlet. The nest was constructed as usual of a mixture of mud and grasses with a lining of finer grass and a large quantity of white ptarmigan feathers almost burying the eggs. (*Grinnell.*) Nests oblong and attached to the walls or to the rafters of barns and other buildings; or round and placed on the beams. They are made of mud arranged in small pellets formed and mixed with grass and have a lining of feathers and hair. Four to six eggs in the set at Ottawa and at Lake Nominique, 100 miles north of it, in June and July. (*Garneau.*)

MUSEUM SPECIMENS.

Five; one taken at Ottawa in May, 1888, by Prof. Macoun; two taken at Banff, Rocky Mountains, in May, 1891, and two at Agassiz, B.C., in May, 1889, by Mr. Spreadborough.

Two sets of four and five eggs, respectively taken at Wolfville, N.S., June 12th and 14th, 1902, by Mr. H. Tufts.

613a. **Alaskan Barn Swallow.**

Hirundo erythrogaster unalaschkensis (GMEL.) PALMER. 1899.

A few barn swallows were flying over the marshes of Chilcat Inlet, June 1st, 1899; I heard they were common at White Pass City, June 9th, and we saw two about the buildings at White Pass summit, June 10th; at Log Cabin they were common, June 14-20th; a few were noticed at Lake Bennett, June 19-21st. I refer all seen to this sub-species, because all had remarkably long tails. (*Bishop.*) Walking along the hills near the village of St. George on May 28th, 1890, with Mr. Ed. Lavender, we saw a swallow skimming along the edge of the cliff, catching the flies which the warm sun had enticed from the crevices of the rocks. Shortly afterwards it flew just over my head while among the houses of the village. Drs. Noyes and Hereford, who have each spent more than ten years on the island, assured me that a swallow was unknown there, but later in the evening I had the opportunity of showing them the bird on another part of the cliff; it remained

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about the village for nearly two weeks; on June 4th, while standing on Black Bluff, St. Paul, I watched a swallow coming in to the land and then fly northward up the island; I found a nest at Unalaska, on August 13th, containing three large young, a male and two females, and secured the adults also; the nest is of mud held together by grass rootlets; it is 9 inches wide by 4 inches deep, the cavity is $2\frac{1}{2}$ inches in diameter and $1\frac{3}{4}$ inches deep; grass rootlets encircle the cavity, which is well lined with gull and raven feathers; it was built in a large cavity, almost a cave, of a rock on a hillside, and was placed on the slightly sloping face of the back portion, about its centre; a slight inequality of the rock face was sufficient to hold it in place; to enter the cavity the birds had to fly to the face of the rock and then dip downward between the rock and many tall plants, which effectually hid the opening; I saw no others. (*Palmer.*)

CCXVIII. **TACHYCINETA** CABANIS. 1850.

614. **Tree Swallow.**

Tachycineta bicolor (VIEILL.) CAB. 1850.

Common at Big Island in the Koksoak River near Fort Chimo where it breeds abundantly; abundant throughout the northern portions of Labrador. (*Packard.*) A very common summer migrant at Cow Head, Newfoundland. (*Recks.*) A common summer resident at Halifax, N.S. (*Dovens.*) A common summer resident at Sydney, Cape Breton Island. (*C. R. Harte.*) Rather common in many parts of Cape Breton Island, N.S., 1898; common at Brackley Point, Prince Edward Island, June, 1883. (*Macoun.*) Fairly common, nesting in old woodpecker holes and clearings, crevices about barns and the hollow ends of rails composing the zig-zag fences so common on Prince Edward Island. (*Dwight.*) Common summer resident at St. John, N.B. (*Chamberlain.*) A tolerably common resident at Scotch Lake, York Co., N.B. (*W. H. Moorc.*) Rare in the Restigouche valley, N.B.; only seen in the vicinity of settlements. (*Brittain & Cox.*) On July 9th two were seen at Fox Bay, Anticosti. (*Brewster.*) A common summer resident around Quebec. (*Dionne.*) An abundant summer resident at Montreal; breeds in the city and in Mount Royal Park; I have found their nests containing eggs, from May 29th to June 2nd, and young birds in nests to July 14th; observed here from April 7th to September 13th. (*Wintle.*)

A common and abundant summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common in eastern Ontario; this species is the first swallow to arrive in the spring and consequently being the earliest to breed. (*Rev. C. J. Young.*) Abundant summer resident in the Parry Sound and Muskoka districts; I have met with them nesting in deserted woodpecker holes. (*J. H. Fleming.*) Two pairs were breeding at C ache Lake, Algonquin Park, Ont. in June, 1900, one pair in an old woodpecker's nest in a telegraph pole, the other pair in a hole in a tree on the shore of the lake; a few observed on Moose River; common at Moose Factory, James Bay; none seen further north. (*Spreadborough.*) Formerly quite common at London, Ont., but now much less so; fully as numerous in north Bruce as near London; although this bird departs from the vicinity of London about August 20th to 25th, yet on September 20th, 1900, I saw about 50 circling over the marshes at Point Pelee, so that it evidently travels very slowly for the first stage of its journey. (*W. E. Saunders.*) Common summer resident at Guelph, Ont.; arrives about April 14th and leaves about August 18th. (*A. B. Klugh.*) A few seen on lower Red River, June 15th, 1901, and two at Norway House, June 19th; common between Norway House and Oxford House, and many nests were observed in deserted holes of woodpeckers, in trees at the water's edge, June 23rd to 30th; common also at Oxford House and noted on Steel River, July 9th; on our return through their haunts early in September we saw none. (*E. A. P ebles.*) York Factory, Hudson Bay. (*Dr. R. Bell.*)

Only observed at Pembina on the 49th parallel where it was breeding in small numbers about the fort. (*Coues.*) Common summer resident of wooded parts of Manitoba; on July 17th went to White Horse Hill; found a large colony of white-breasted swallows nesting in old woodpecker's holes, with which the timber is riddled; this is the largest colony I have seen; it numbers perhaps 20 pairs; nearly all of these settlements that I have noted have been close to a sheet of water. (*Thompson-Seton.*) First seen at Indian Head. April 8th, 1892; they became common by May 19th, but a few remained to breed as they were seen as late as June 24th; only two specimens observed at Crane Lake in 1894 and none at Medicine Hat; a few specimens were observed at Waterton Lake, close to Chief Mountain in August, 1895; observed from the mouth of Lesser Slave River to Peace River Landing,

Lat. $56^{\circ} 15'$, June, 1903; first seen at Edmonton, Alta., April 30th, 1897, breeding in trees late in May, found a nest in a hole in a balsam poplar stub about 12 feet from the ground; nest made of a little fine grass, lined with feathers; seen from Edmonton to Jasper House, breeding in holes in trees in June, 1898. (*Spreadborough.*)

Abundant every year and breeding in great numbers throughout southern Saskatchewan. (*Coubeaux.*) While on a moose hunt, about 20 miles from Chemawawin, I saw apparently thousands of these birds on a few dead trees standing out in the marsh. Some of those trees were so crowded by the perching swallows that there seemed literally to be no more room. (*Nutting.*) A few specimens were seen between Athabasca Landing and Lesser Slave River; a few individuals at north end of Methye Portage; about half a dozen birds on Isle à la Crosse Lake. (*J. M. Macoun.*) This neat and handsome bird frequents the wooded districts up to Lat. 60° , making its nest of dried grass and feathers in hollow trees. (*Richardson.*) North to Fort Good Hope, Mackenzie River. (*Ross.*) Breeding in trees at Canmore, within the Rocky Mountains, in June, 1891; not uncommon at Revelstoke, on the Columbia, B.C., in April, 1890; breeding in the old trees in the river valley; common and breeding at Trail and Penticton, B.C., in June, 1902 and 1903; common at Kamloops and Spence's Bridge, Agassiz and Hastings, Burrard Inlet, B.C., 1889; abundant at Chilliwack, B.C., in spring, nesting in holes in trees. (*Spreadborough.*) More common east than west of Coast Range. (*Lord.*) Common summer resident in the coast region; breeds. (*Streator.*) Province at large; abundant. (*Fannin.*) Abundant summer resident at Chilliwack, B.C. (*Brooks.*) Uniformly abundant throughout British Columbia up to 5,000 feet. (*Rhoads.*) Common at Donald, B.C.; and at Vancouver and Victoria in 1894. (*E. F. G. White.*)

Breeding commonly in old woodpecker holes in the tall dead firs at the foot of the mountain back of Sitka, Alaska. (*Ginnell.*) I saw several at Skagway, May 31st, and over the Chilcat marshes June 1st. Others were seen at Cariboo Crossing, B.C.; others at Lake Marsh and several at Miles Cañon; others again at Fort Selkirk, Yukon district, entering an old dead tree. (*Bishop.*) This species has even a wider range than the barn swallow though not breeding so far to the north owing to its nesting in holes in

banks and in trees. (*Nelson.*) On several occasions I saw this swallow flitting about the buildings at St. Michael during the months of August and early September. (*Turner.*)

BREEDING NOTES.—The sudden disappearance of a swallow as it alighted on a fence was almost startling until I learned that in some deep hollow decayed out of the heart of an unsplit rail was a very cosy nest of grass and feathers. It was impossible to dislodge the birds that were sometimes out of arm's reach, but several nests examined the last week in June contained young. I have never found this species nesting in such a location before. (*Dwight.*) This species builds its nest generally in holes in trees 10 to 30 feet from the ground. The nest is made of fine soft grass, well lined with feathers and down. Eggs 5; pure white. (*G. R. White.*) From May to July is the nesting time for this species at Scotch Lake, N.B. The nests are placed in hollow fence poles or in old woodpecker nests. The nests are beautifully made of feathers and contain from 3 to 6 eggs. When the nest is in a hollow pole the sitting bird has a way of spreading itself so that only dark feathers show, when a person looks in at the nest, so that sometimes a person cannot tell if the bird be on the nest or not. (*W. H. Moore.*) A nest of grass and feathers built in a deserted woodpecker's nest; it may be in any hole in tree or fence post around Ottawa where they breed in numbers. The four or five eggs are laid in May and June. (*Garneau.*)

MUSEUM SPECIMENS.

Thirteen; two taken at Ottawa in May, 1888, by Prof. Macoun; one taken at Athabasca Landing, Atha., May 24th, 1888, by Mr. J. M. Macoun; two taken at Indian Head, Assa., in May, 1892; two at Edmonton, Alta., May 10th, 1897, four at Revelstoke, B.C., in May, 1890, one at Agassiz, B.C., May 17th, 1889, and one at Port Moody, B.C., April 29th, 1889, all by Mr. Spreadborough.

Two sets of eggs; one of six taken at Wolfville, N.S., June 5th, 1894, by Mr. H. Tufts; one set of three eggs taken at Ottawa, by Dr. James Fletcher.

615. **Violet-green Swallow.**

Tachycineta thalassina lepida (MEARNS) A.O.U. Comm. 1902.

Observed only on one occasion, June 26th, 1874, on the upper Missouri, near Quaking Ash River. (*Coues.*) A common species

at Banff, Rocky Mountains, breeding in cliffs at Canmore, June, 1891; a large colony was found along the Wait-a-bit which flows into the Columbia at Donald, B.C.; not seen at Revelstoke, but shot in the Eagle Pass a little to the west; quite common at Deer Park and Robson in the Columbia valley, breeding in large numbers in the cliffs; observed a few at Henry House, Athabasca Pass in July, 1898; first seen April 9th, 1903, common by the 17th at Penticton, south of Lake Okanagan; abundant around the cascade at Spence's Bridge and at Yale, B.C., May, 1889; a few were observed at Chilliwack, B.C., in the spring of 1901; first seen near Victoria, Vancouver Island, April 8th, 1893; by May 10th they were very abundant; later in the season they were found breeding at Sooke, Nanaimo and Comox. (*Spreadborough.*) Common in British Columbia. (*Lord.*) Found only at Ashcroft; breeds. (*Streator.*) An abundant summer resident throughout the province. (*Fannin.*) Common; may breed in the vicinity of Chilliwack. (*Brooks.*) Uniformly distributed throughout British Columbia up to 7000 feet. (*Rhoads.*) Common at Donald, Columbia River; very common at the mouth of Nicola River, B. C.; and in Stanley Park, Vancouver, B.C. (*E. F. G. White.*)

We saw a single male among flocks of bank swallows flying over Fifty-mile River above Miles Cañon, July 11th, 1899, and another between White Horse Rapids and Lake Lebarge. In July I took a male from several that we saw near Hootalinqua River and at the Semenow Hills, July 20th, Osgood secured a female, finding her nest with four young in a crevice in the cliff; after this we saw colonies of from six to ten individuals and one near White River that must have contained over fifty; they were nesting about the cliffs as a rule, but several times we saw them enter holes in banks similar to those of the bank swallow, while at Fort Selkirk they were nesting in the interstices between the logs of the cabins; we often met with small colonies until we were within 15 miles of Circle City, Alaska. (*Bishop.*)

MUSEUM SPECIMENS.

Thirteen; four taken at Deer Park, Columbia River, B.C., in June, 1890, one at Revelstoke, B.C., May 25th, 1890, four at Spence's Bridge, B.C., in May, 1889, and four at Victoria, Vancouver Island, April and May, 1893, all by Mr. Spreadborough.

CCXIX. **RIPARIA** FORSTER. 1817.616. **Bank Swallow.**

Riparia riparia (LINN.) SHARP & WYATT. 1894.

A pair said to have been seen on Melville Island, June 9th, 1820, by Parry. (*Arct. Man.*) Audubon states that it rarely begins to breed before June and lays only once; said to be plentiful on the south shore of Labrador. (*Packard.*) Not common, but few seen throughout the trip from Moose Factory across Ungava to the forks of the Koksoak above Fort Chimo on Aug. 24th, 1896. (*Spreadborough.*) Very rare at Cow Head, Newfoundland, but said to be common about the Bay of St. George. (*Reeks.*)

Not found at Halifax, N.S., but plentiful about the shores of the Bay of Fundy. (*Forbes.*) Not rare in certain localities along Bras d'Or, Cape Breton Island, 1898; rather common at Brackley Point, Prince Edward Island, July, 1888. (*Macoun.*) I perhaps do this species an injustice when I say that it is outnumbered by the Savanna sparrow and the junco. I saw colonies of hundreds at several points along the coast, and as every bluff is crowned by a layer of sand and much of the coast is a continuous bluff the species have unrivalled opportunities for nesting places. (*Dwight.*) A common summer resident at St. John, N.B. (*Chamberlain.*) An abundant summer resident in suitable localities at Scotch Lake, York Co., N.B. (*W. H. Moore.*) A small colony was found at the mouth of the Kedgwick, Restigouche valley, N.B. (*Brittain & Cox.*) Tolerably common on the Magdalen Islands; breeding on Grindstone Island. (*Bishop.*) We met with this species frequently in the Gulf of St. Lawrence but only observed two breeding stations, one at Grand Entry Island in the Magdalens and the other at Gaspé, Que. (*Brewster.*) Summer resident around Quebec. (*Dionne.*) A common summer resident at Montreal. A small colony of these birds used to breed in the bank above the high level reservoir in Mount Royal park, but they deserted the place in 1885; another large colony used to breed in the sand pits at Hochelaga, where I have observed them burrowing May 12th. (*Wintle.*)

A common and abundant summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common in eastern Ontario. (*Rev. C. J. Young.*) An abundant summer resident in the Parry Sound and Muskoka districts. (*J. H. Fleming.*) Not common in Al-

gonquin Park, Ont. A few seen breeding in a bank at Whitefish Lake. (*Spreadborough.*) Abundant where suitable breeding places are, even sometimes in thousands in the cliffs along Lake Erie. These birds always make an oval hole for nesting about $1\frac{1}{4}$ inches by $2\frac{1}{4}$, and from one to three feet in length. (*W. E. Saunders.*) A fairly common summer resident at Guelph, Ont. (*A. B. Klugh.*) An abundant summer resident at Penetanguishine, Ont. (*A. F. Young.*)

A small colony was found on Red River, a few miles below Winnipeg, June 14th, 1901, and a large one in a high clay bank on the shore of Oxford Lake, near Oxford House, June 30th. Several colonies were seen on Hayes River, a few miles above York Factory. (*E. A. Prebles.*) This species was found everywhere along the 49th parallel where there were cut banks suitable for breeding sites for the digging of holes in which the nests are constructed. (*Coues.*) A somewhat common summer resident in Manitoba. They excavate their nests in the banks of the Assiniboine and Qu'Appelle, and breed in colonies. (*Thompson-Seton.*) First individual was seen at Indian Head, Assa., May 30th, 1892, after this time they became common, they must breed near here as they were seen in numbers up to June 27th when I left; very common on Skull Creek, near Crane Lake, Assa., they reached there June 11th and began breeding in the cut banks of the creek; dug out two nests, but only obtained three eggs, one in one nest and two in the other; one was seen later in the month at the east end of the Cypress Hills; in 1895 this species was first noticed at Old Wives' Creek, Assa., and afterwards on the prairie wherever there were cut-banks to Frenchman's River; it was also seen on the prairie at the west end of the Cypress Hills; later it was found to be abundant along the Milk River, St. Mary's River and Lee's Creek, almost to the Rocky Mountains; first seen at Edmonton, Alta., May 8th, 1897; breeding in the river bank below the lower ferry by May 22nd; common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; breeding in the banks of Bragg's Creek, about 40 miles southwest of Calgary, June 25th; breeding in the cut banks of the Bow River, below Banff, in the Rocky Mountains, in June, 1891; abundant at Kamloops, B.C., 1889; a flock was seen in the Eagle Pass, 5 miles west of Revelstoke, May 13th, 1890, but none in the Columbia valley; breeding in numbers in the bank of the Colum-

bia just below Trail, B.C., in June, 1902; observed first at Penticton, B.C., April 24th, 1903; they only stayed a few days when they disappeared. (*Spreadborough.*)

Very abundant on the Athabasca River between Lesser Slave River and Fort McMurray, Lat. $56^{\circ} 40'$, first noticed June 1st; not rare up the Clearwater River to Methye Portage; a few birds on Deep River near Isle-à-la-Crosse. (*J. M. Macoun.*) This species is very widely distributed in the Northwest Territories and thousands were observed fluttering at the mouths of their burrows near the mouth of the Mackenzie River in Lat. 68° , on July 4th; they are equally numerous in all other localities suited for burrowing. (*Richardson.*) North to Fort Simpson on the Mackenzie River; abundant. (*Ross.*) This species is to be met with in considerable numbers during the season of nidification; it builds its nests in holes in sandy or clay banks on Anderson River. (*Macfarlane.*) Scarce at Chilliwack; may breed in vicinity. (*Brooks.*)

Along the Arctic coast, as well as the shores of Behring Sea, this is an extremely rare visitant, occurring merely as a straggler, during its migrations; on the river courses of the interior, however, it is one of the most abundant, if not the most abundant species of swallow. (*Nelson.*) These swallows are but occasional visitors to the vicinity of St. Michael, where it was only observed during the middle of the summer season. (*Turner.*) More plentiful east than west of the Coast Range. (*Lord.*) Found breeding along the Thompson River at Ashcroft and more abundantly at Kamloops, B.C. (*Rhoads.*) The bank swallow was very common all along the Kowak River, Kotzebue Sound, Alaska, from the delta to Hotham Inlet, eastward; on our trip up the Kowak from August 12th to 19th, 1898, many colonies of the nesting burrows were observed in the sandy river banks. (*Grinnell.*) We found a small colony nesting at the northern end of Lake Tagish, July 1st, and a larger one on the west shore of Lake Marsh, but we were entirely unprepared for the great abundance of them on Fifty-mile River above Miles Cañon. There, almost every bank was honeycombed with their holes; along the rest of the Yukon to Circle City in Alaska, August 1st; after this their presence was only manifested by their deserted holes. (*Bishop.*) Very abundant at Dawson, Yukon district, Lat. $64^{\circ} 15'$, breeding in clay banks, July 19th, 1902. (*Macoun.*)

BREEDING NOTES.—On June 5th, 1902, there was a severe and very cold storm, and at one colony the birds evidently crowded into the partially completed burrows for shelter, to such an extent that those at the end were crushed or smothered to death; almost every burrow had three or four dead birds, rammed hard against the end; one hole had six, jammed into a mass which held together so strongly I was able to drag it out by pulling on one wing; some holes contained but one bird, and in these cases the little bodies were not so badly jammed; one of these solitary corpses proved to be that of a barn swallow; I presume these single birds died from the cold as doubtless had the several found on the ground at the foot of the bank; altogether some 30 or 40 swallows perished in this colony. (*C. R. Harte.*) Nests abundantly in cut banks of islands and gravel banks; the nest is at the end of a double mouthed tunnel and is composed of a few dried grasses; the eggs are three, pure white and the shells are exceedingly thin. (*W. H. Moorc.*) Nests dug in sandy banks to a depth of three or four feet and lined with grass and feathers; they breed in colonies in suitable places near Ottawa; the set is five eggs, laid in May and June. (*Garneau.*)

MUSEUM SPECIMENS.

Four; one taken at Ottawa in May, 1888, by Prof. Macoun; one taken at Indian Head, Assa., in May, 1892; one at Canmore, Rocky Mountains, May 29th, 1891, and one at Kamloops, B.C., June 29th, 1889, all by Mr. Spreadborough.

Three sets of eggs; one of five taken at Black Rapids, Rideau River, Ont., June, 1894, by Mr. O. Klotz; one of four taken near Toronto and received from Mr. W. Raine, and one set of five, taken at Pine Hill Creek, Alta., July 15th, 1900, by Mr. W. Thorburn.

CCXX. **STELGIDOPTERYX** BAIRD. 1858.

617. **Rough-winged Swallow.**

Stelgidopteryx serripennis (AUD.) BAIRD. 1858.

I have a specimen taken at Toronto. This species is probably overlooked in our neighbourhood. (*J. H. Fleming.*) Common along the streams and rivers of Middlesex county, Ont. Data are lacking for other points in the west of the province. I have been

unable to ascertain that this bird ever excavates its own nesting holes. Certainly it often uses old kingfisher holes and sometimes a cavity in a brick wall. The holes are not less than three inches in the smallest diameter, and the nests have been found at all depths. Sometimes they are visible from the outside and at others 40 inches from the outside. The nests are bulky and made of straws, weed-stems, roots and small sticks, and are usually lined with green willow leaves, but have not so far been found with a feather lining as is usually the case with the bank swallow. The eggs are larger than those of that species, and are in sets of 6 or 7, while the bank swallow lays 4 or 5 and sometimes 6. (*W. E. Saunders.*)

A specimen of this bird, taken near Winnipeg by Mr. Hine, is in the Manitoba museum. (*Thompson-Seton.*) Found breeding at Canmore within the Rocky Mountains in June, 1891; shot at Revelstoke, B.C., May 6th, 1890; breeding in the cut banks of the Columbia in many places; large numbers were nesting at Robson in July, 1890; breeding in numbers in a bank on Trail, Creek, B.C., in June, 1902; seen for only a few days at Penticton in 1903; common at Kamloops and Spence's Bridge; also breeding in a steep bank near Vancouver, B.C., and at Port Moody, Burrard Inlet, and at Port Heney, on the Fraser River; common at Chilliwack, in the spring of 1901; a common summer resident on Vancouver Island, breeding at Goldstream and Shewanagin Lake; also in holes by the sea shore at Comox and Sooke. (*Spreadborough.*) Much more plentiful east than west of the Coast Range. (*Lord.*) Common throughout the province; breeds. (*Streator.*) Common all over the province; breeds in the banks at Beacon Hill, Victoria. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Not common in British Columbia, but of the same distribution as the barn swallow. (*Rhoads.*) Common at Revelstoke, Salmon Arm and Agassiz and breeding in the Sea Bird Bluffs near Vancouver, B.C., in May, 1897. (*E. F. G. White.*)

MUSEUM SPECIMENS.

Eight; three taken at Revelstoke, B.C., in May, 1890; one at Robson, on the Columbia River, June 26th, 1890; two at Trail, B.C., in May, 1902; two at Port Heney, Fraser River, B.C., April, 1889, all by Mr. Spreadborough.

One set of six eggs taken at Masonville, Middlesex Co., Ont. June 30th, 1897, by Mr. J. E. Keays.

FAMILY XLVI. **AMPELIDÆ.** WAXWINGS.

CCXXI. **AMPELIS** LINNÆUS. 1766.

618. **Bohemian Waxwing.**

Ampelis garrulus LINN. 1766.

A flock appeared at the Three-mile House, near Halifax, N.S., in the winter of 1864-5, but none have been seen since up to the time of writing. (*Downs.*) Some winters quite plentiful at St. Stephen, N.B. (*Chamberlain.*) Observed in winter at Harvey, York Co., N.B.; rare. (*W. H. Moore.*) Taken at Lorette; a winter migrant at Quebec. (*Dionne.*) A rare winter visitant at Montreal. I have not seen them myself and have no recent record of their occurrence in the vicinity of Montreal. (*Wintle.*)

A winter visitor. It is now many years since this bird has visited us in large numbers. (*Ottawa Naturalist*, Vol. V.) But seldom met with in the county of Leeds, in eastern Ontario. One winter I saw two of them sitting on a rail fence and quite tame. On June 14th, 1899, I found a nest in a rough, rocky part of the country near Charleston Lake, Leeds Co., that I attributed to this species. It was built in a crotch of a soft maple that grew in a wet swampy place. The nest contained two eggs, measuring 1.10 x .70 and 0.94 x .68. They are noticeably larger than any cedar bird I ever saw. They are of the same ground colour, but sparingly spotted with round black spots. The nest was a firm, substantial structure, quite deep and built of rootlets, twigs and fibres; not of grass and straws as most of the cedar birds have been that I have seen. (*Rev. C. J. Young.*) Occurs rarely in the Parry Sound and Muskoka districts in winter. Only visits Toronto occasionally. When it does so it keeps well in the centre of the city. A flock stayed on Wellesley St. a few winters ago and could often be seen cleaning themselves in the snow on some sloping roof or else feeding on the rowan berries that hung over the sidewalk. (*J. H. Fleming.*) About 18th February, 1895, Toronto was favoured by a visit, in considerable force, of these beautiful northern birds. While here they fed chiefly on the berries of the mountain ash, and on 20th March I noticed num-

bers of them fly down to a pool of snow water in Queen's Park to drink and bathe or rather splash themselves. I saw four on 14th Dec., 1895—one on 5th March, 1896, with a flock of *A. cedrorum*; and on 31st Dec., 1896, I saw a fine male taken from a small flock just north of the city. A few remained with us till late in April, and on the 16th of this month I saw them in the tall elms in University grounds, having changed their habits entirely, for they were chasing every luckless winged insect that came in sight, and snapping their bills much after the manner of the flycatchers. Mr. Percival Turner writes me that he saw a small flock in the English Church yard at Belleville on 6th February, 1900. (*J. Hughes-Samuel.*)

Three were observed by Mr. Alfred E. Prebles in the stunted spruce woods near Fort Churchill, Hudson Bay, on July 25th, 1901. Mr. J. B. Tyrrell speaks of seeing a flock "in a grove of birch trees near the shore of Theitaga Lake, on their breeding grounds." This lake is situated about 300 miles slightly north of west of Fort Churchill. (*E. A. Prebles.*) A tolerably common winter resident in Manitoba. (*Thompson-Seton.*) An uncommon straggler near Prince Albert, Sask.; shot once only, but twice noted in the spring of 1895. (*Coubeaux.*) One specimen of this species in first plumage was shot on the mountain side adjoining Chief Mountain Lake (Waterton Lake) at an altitude of about 4,200 feet in thick coniferous woods, where it was in company with numbers of *Ampelis cedrorum*. Being taken on August 19th it was evidently in its summer home. (*Coues.*) One specimen seen at Medicine Hat, Assa., April 11th, 1894, and another on the 14th of the same month; a common species at Canmore, Rocky Mountains, in May, 1891, but no nests were seen. [In 1885, the writer shot young birds on June 27th, at the same place, and had no doubt about nests being in the spruce woods that then filled the valley.] I believe that a colony, or more than one, of these birds exists on the eastern slope of the Rocky Mountains, and doubtless are permanent residents; saw a large flock on Lake Mountain, east of the Columbia River, on the International Boundary, B.C., Nov. 3rd, 1902; saw three near the summit of the Rocky Mountains in the Athabasca Pass, July 11th, 1898; also a flock of about fifty on the Brazeau River, September 24th, said to stay in the Mountains all winter. (*Spreadborough.*) This elegant bird has only lately been detected in America, having been discovered in

the spring of 1826 near the sources of the Athabasca River by Mr. Drummond, and by myself the same season at Great Bear Lake, in Lat. 65°; it appears in great flocks at Great Bear Lake about the 24th May, when it feeds on the berries of the alpine arbutus and marsh vaccinium; it stays only a few days; none of the Indians knew where it nests, but I have reason to believe that it is in the mountain limestone districts in Lat. 67° or 68°. (*Richardson.*) I have been informed by Mr. John Hope, a resident at Fort Franklin on Great Bear Lake that these birds build in numbers in the vicinity; but so high up on the trees that the eggs are very difficult to obtain; a specimen was shot at Fort Liard in February which leads me to believe that it is a winter resident. (*Ross.*) An egg and nest of this bird were found in a pine tree on the Anderson River in 1861 in about Lat. 68°. Several skins were obtained at Fort Anderson in 1862, but the most careful search failed to produce any nests. (*Macfarlane.*) Shot only east of the Coast Range. (*Lord.*) A resident chiefly east of Coast Range and Rocky Mountain district; a rare winter visitor on Vancouver Island. (*Fannin.*) Abundant in some winters in Chilliwack and entirely absent in others; abundant at Lake Okanagan, B.C. in the winter of 1897-98, but less so the next winter; breeds. (*Brooks.*) Saw numbers of large flocks up the Columbia from Golden, B.C., December, 17th, 1899; and numbers up the Nicola, February 23rd, 1898. (*E. F. G. White.*)

On August 20th, 1899, the day we arrived at our winter camp on the Kowak, Cook's Inlet, Alaska, I saw a flock of 50 waxwings in a bunch of spruce trees, but none afterwards. (*Grinnell.*) There is no record of this bird's occurrence anywhere along the shores of Behring Sea on the arctic; in the interior, however, it is rather common, and specimens were brought to me from Nulato and Fort Reliance on the Yukon; the only examples we have (from Alaska) of the waxwing's nest and eggs were taken by Kennicott at Fort Reliance, Yukon, on 4th July, 1861. (*Nelson.*) This bird is only an occasional visitor to the coast; specimens were obtained from Nulato and Fort Yukon. (*Turner.*) We saw several on Six-mile River, July 1st; two at Lake Marsh, July 7th; one on Fifty-mile River, July 10th; two pairs at Miles Cañon, July 11th; and later they were seen in pairs and families at many points on the Yukon to near Circle City; the last were seen August 12th;

the birds that we collected had been feeding on the purple berries of some unidentified plant. (*Bishop.*)

The plant referred to above was likely the bog blueberry (*Vaccinium uliginosum*) which was abundant on mossy slopes and sphagnum flats between Dawson and Selkirk. Berries ripe at Dawson, Lat. $64^{\circ} 15'$, July 10th, 1902. (*Macoun.*)

BREEDING NOTES.—Breeding from 158-Mile House northward; I arrived at Quesnel too late for eggs, but kept a sharp lookout for waxwings the following spring at 158-Mile House; I first noticed them there on 11th June, when I came across a small flock and shot one which proved on dissection to be a female about to lay. On returning to the same spot I found the waxwings, consisting of a colony of five pairs of birds, still there, and soon discovered a nest in a Murray pine, near the end of a limb and about 25 feet up; this then (12th June) contained two eggs; on the 15th I took this set, which then consisted of four eggs; the nest was loose and bulky, composed of *Usnea* moss, dry grass and weed stems, and lined with fine material, with a few green aspen leaves in the lining, no doubt to render the eggs less conspicuous; on the 26th June I carefully looked over all the trees in the neighbourhood with my binocular, and found three more nests, all in tall Douglas fir trees; two of these I was able to climb to; each contained four eggs within a few days of hatching; the nests were similar to the first but without the green aspen leaves, probably due to the fact that the nests were better concealed from above; I was unable to reach the fourth nest, nor could I find that of the remaining pair of birds. (*Brooks.*) Early in June, 1893, I saw and heard this bird chattering in the woods on the slopes of Squaw Mountain at Banff in the Rockies; my guide informed me he had several times seen its nest late in July; I offered him a good price for a set of eggs and sure enough he succeeded in finding a nest and four eggs on July 30th, 1893; this nest is composed of fine twigs, roots and grass and was built 20 feet up in a spruce tree; on July 13th, 1894, he found a nest and five eggs, also built in a spruce tree top, while on July 22nd, 1897, he found another nest and four eggs, again built in the top of a low spruce tree, and secured one of the birds. (*W. Raine.*)

MUSEUM SPECIMENS.

Ten specimens; three taken at Canmore, Rocky Mountains in June, 1885, by Prof. Macoun; four taken at Banff, Rocky Moun-

tains and two at Medicine Hat, Assa., by Mr. Spreadborough ; one at Burrard Inlet, B.C., by Mr. John Fannin.

619. Cedar Waxwing, Cherry Bird.

Ampelis cedrorum (VIEILL.) GRAY. 1846.

One specimen obtained August 26th, 1860, at Moose Factory by Drexler. (*Packard.*) Saw a flock of about 30 on Moose River June 2nd, 1896; common at Moose Factory, June 13th; none observed further north. (*Spreadborough.*) A common summer resident at Sydney, Cape Breton Island, N.S. (*C. R. Hart.*) Common summer resident at Halifax, N.S. (*Downs.*) A flock of ten seen in Amherst, N.S., March 1st, 1899. (*Morrell.*) A small flock of these birds reached Sabie Island, N.S., June 7th, 1902, and another in September of the same year. (*James Bouteillier.*) Seen at Mount Stewart, Prince Edward Island, July 11th, 1888. (*Macoun.*) Seen now and again on Prince Edward Island, but not common. A few observed at Baddeck, Cape Breton Island. (*Dwight.*) A common summer resident at St. John, N.B. (*Chamberlain.*) Tolerably common summer resident at Scotch Lake, York Co., N.B.; nesting in orchards and conifers. (*W. H. Moor.*) Rare at Lake Mistassini, Que. (*J. M. Macoun.*) Common in burnt places, Restigouche valley, N.B. (*Brittain & Cox.*) A common summer resident around Quebec. (*Dionne.*) Permanent resident and abundant at Montreal. Breeds in the city and in Mount Royal park. I have found their nests with eggs from June 13th to August 27th. During the winter months flocks of these birds appear in the city to feed on the berries of the mountain ash trees. (*Windle.*)

Common summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) A common species along the St. Lawrence below Kingston, Ont. (*Rev. C. J. Young.*) A common summer resident in the districts of Parry Sound and Muskoka. Usually nesting along the banks of streams. (*J. H. Fleming.*) Abundant at C ache Lake, Algonquin Park, Ont. (*Spreadborough.*) Common but very erratic around London, Ont. Sometimes seen in winter, and more often in flocks in early spring but the breeders arrive here about May 6th. This is an average date of arrival for 13 years. Seems to hold its own in spite of its frequent fate at the hands of the owners of stolen cherries. (*W. E. Saunders.*) Com-

mon summer resident at Guelph, Ont. Arrives about May 29th, and leaves about Sept. 26th. (*A. B. K. Hughl.*) A common and breeding summer resident at Penetanguishene, Ont. (*A. F. Young.*) Recorded by Baird from Moose Factory, at the foot of James Bay, where it was collected by Drexler on Aug. 26th, 1860. Walton Hayden took specimens at the same place in 1881. (*E. A. Prebles.*)

Not seen at Pembina, but found at various other points along the 49th parallel, and ascertained to be particularly abundant in the Rocky Mountains. (*Coues.*) A common summer resident of woodlands in Manitoba. On July 22nd, 1884, at Portage la Prairie, found a nest of a cedar bird in the woods near the river. It was placed on the branch of a low oak, and was much the same as a specimen taken in the eastern provinces. It contained two fresh eggs, from which I infer that the species is a very late nester here. (*Thompson-Seton.*) Three individuals were seen at Indian Head, Assa., on June 2nd, and later they became common, they breed here; apparently breeding at Old Wives' Creek in June, 1895; seen in numbers at Waterton Lake the same year; quite common along Peace River, Lat. 56°, in July, 1903; common from Edmonton to Athabasca Pass in June 1898; observed a number of individuals at Jumping Pound Creek, near Calgary, June 27th, 1897; common at Crow's Nest Pass the same year; a common breeding species at Banff, Rocky Mountains, in June, 1891; abundant at Deer Park and Robson, on the Columbia, in June 1890, only commencing to breed on June 20th; common at Agassiz after May 24th, also at Spence's Bridge; one pair seen at Kamloops, June 18th, 1889; seen in flocks in the fall feeding on the fruit of black elder and thorn at Huntington, on the International Boundary, B.C., 1901; during the summer of 1893 not more than a dozen specimens of this species were seen on Vancouver Island, these were at Victoria and Comox. (*Spreadborough.*)

Not uncommon as a summer resident near Prince Albert, Sask. Have seen them in my garden in July. (*Coubeaux.*) Abundant and nesting at Chemawawin and Grand Rapids of the Saskatchewan. Nest well made of rather coarse twigs. (*Nutting.*) First seen near Gros Roche Portage, Clearwater River, Lat. 56° 30'. Common from there to Methye Portage, and on the portage, of ten miles, itself. Common in places between Methye Lake and

Isle à la Crosse. (*J. M. Macoun*) This species is more southern in its habits than the Bohemian chatterer, and does not pass north of Lat. 54° as far as my observations go. Mr. Drummond obtained specimens on the Saskatchewan plains on 27th June, 1827. (*Richardson*.) Common on Vancouver Island and along the Fraser and Columbia rivers. (*Lord*.) Common wherever there is an abundant food supply; breeds. (*Streator*.) A common summer resident throughout the province. (*Fannin*.) Tolerably common summer resident at Chilliwack. Not observed at 158-Mile House, B.C., but found breeding at Quesnel, further to the north, where it evidently laid its eggs later than the larger species. (*Brooks*.) A common species in British Columbia, and as erratic in presence and abundance as its eastern counterpart. (*Rhoads*.) Large flocks were seen at Seymour Creek, B.C., July 12th, 1891; other large flocks on Sumas prairie, October 10th, 1894, and others again on Sea Island in the Fraser River, B.C. (*E. J. G. White*.)

BREEDING NOTES.—I have often seen the nest in an apple tree in an orchard, occasionally in a hemlock, and frequently in a young maple; it is not usually built very high up in the tree, generally from 10 to 15 feet, but I have seen it as low down as five feet and as high as twenty. This bird is, with the exception of the goldfinch and the field sparrow, our latest builder; I have seen the nest with fresh eggs late in July, and never earlier than the 18th of June; it is built of straws, grass stalks and wood, and lined with hair and feathers; in this respect it presented a marked contrast to the nest I found at Charleston Lake, Leeds Co., and from the size of the eggs and location attributed to the last species; eggs of the cedar bird vary considerably. (*Rev. C. J. Young*.)

At Ottawa this species builds in bushes or trees, generally in a crotch or saddled on a limb, a nest composed of twigs, bark, leaves and rootlets; lined with fine grass, hair and wool; eggs 4, slate blue, spotted and blotched with brownish-black. (*G. R. White*.) Nests built in all kinds of trees, never very high up, and made of various materials, such as twigs, grasses, rootlets, leaves, plant-down, wool and hairs; four to six eggs are laid in June, July and August, near Ottawa and at Lake Nominigue 100 miles north of it. (*Garneau*.)

MUSEUM SPECIMENS.

Thirteen; two taken at Ottawa by Mr. G. R. White; one at Ottawa by Prof. Macoun; one at London, Ont., by Mr. W. E. Saunders; one at Carberry, Manitoba, by Mr. E. Thompson-Seton; one at Indian Head, Assa., two at Banff, Rocky Mountains, one at Trail, B.C., two at Spence's Bridge, B.C., and two at Huntington, B.C., all by Mr. Spreadborough.

One set of four eggs taken at Ottawa, Ont.

FAMILY XLVII. LANIIDÆ. SHRIKES.

CCXXII. LANIUS LINNÆUS. 1758.

621. Northern Shrike.

Lanius borealis VIEILL. 1807.

Not common at Fort Chimo, Labrador; breeds there; young taken by the hand and unable to fly, June 30th, 1884; said to be common in the southern portion of Labrador. (*Packard*.) A young female was taken at Lake Melville, eastern Labrador, July 29th, 1891. (*Norton*.) One observed at Moose Factory, June 9th, 1896; also one at Seal Lake, Labrador, July 24th; apparently rare. (*Spreadborough*.) Rather rare in Newfoundland and may breed. (*Reeks*.) Rare in Nova Scotia in winter, only single specimens seen. (*Downs*.) One individual seen on Sable Island, N.S., in November, 1902. (*James Bouteillier*.) Seen at Sydney, Cape Breton Island, on March 8th, and April 13th and 20th, 1902. (*C. R. Hart*.) An uncommon fall and winter visitant at St. John, N.B. (*Chamberlain*.) A rare permanent resident at Scotch Lake, York Co., N.B.; possibly breeds. (*W. H. Moore*.) Taken at Beauport; resident in Quebec. (*Dionne*.) A common winter visitant at Montreal; observed here from October 20th to April 11th, and I believe I saw one as late as May 23rd, 1891, at Côte St. Antoine, on the mountain side. (*Wintle*.)

Moderately common winter resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A few of these birds are met with in eastern Ontario in fall or winter; I have seen it in the county of Leeds as early as October and late into the spring; it rarely breeds here; I have only met with the nest twice, once in Quebec, a nest containing seven eggs on the 22nd April, and once in the county of Leeds in a tall thorn bush among woods; this bird frequents the neigh-

bourhood of villages in winter; I have a stuffed specimen that was caught in the village of Lansdowne, Ont., having flown against a window in an attempt to get at a canary that was kept in a cage inside. (*Rev. C. J. Young.*) A not uncommon winter resident in Parry Sound and Muskoka districts; I have met them at Sand Lake in October, 1899. (*J. H. Fleming.*) A few reach us every fall at Toronto and spend the winter with us; paying great attention to *Passer domesticus*. On the 29th October, 1896, I watched one for upwards of 30 minutes chasing a bat which had been driven from an old shed; the actions of the shrike were most quaint, as each time he approached the bat he seemed to hesitate to seize it—even granted that he could do so; at last the shrike concluded to leave the uncanny object alone and to seek some more genial repast. (*J. Hughes-Samuels.*) An occasional winter visitant at Penetanguishene, Ont. (*A. F. Young.*)

Two specimens were taken at Fort Churchill, where the birds were rather common July 23rd to 30th, 1901, and one was taken and another noted near Painted Stone Portage on September 14th. (*E. A. Prebles.*) Taken at York Factory, Hudson Bay. (*Dr. R. Bell.*) Taken at Fort Churchill, Hudson Bay. (*Clarke.*)

A tolerably common spring and fall visitant in Manitoba. (*Thompson-Seton.*) Very common and regular summer visitor, breeding throughout the district around Prince Albert, Sask. (*Conbeaux.*) An individual seen at Fort McMurray, Lat. $56^{\circ} 40'$. (*J. M. Macoun.*) This is by no means an uncommon bird in the wooded districts of the Northwest Territories up to Lat. 60° , if not further north. It is most frequent on the banks of the Saskatchewan where it is usually seen on the borders of the plains, or in the vicinity of a lake, perched upon a tree. (*Richardson*) North to Fort Good Hope on the Mackenzie River; not rare. (*Ross.*) A nest of this species containing six eggs was obtained at Fort Anderson on 11th June, 1863, afterwards another nest was obtained more to the north on the Anderson River. (*Macfarlane.*) This species arrives at Indian Head, Assa., in March, or before, and although they became tolerably common in April, all were gone by the 21st of that month; only two pairs were seen at Revelstoke, B.C., in April, 1890; none were seen at Banff the next year, so that it seems to be rare in the Rocky Mountains; one seen at Sumas prairie, Fraser River valley, October 4th, 1901; rather rare on Vancouver Island. (*Spreadborough.*) Tolerably abundant in British

Columbia. (*Lord.*) Seen only on Vancouver Island where two immature females were taken in September, 1899. (*Stricator.*) The province at large; nowhere common; a few are found throughout the winter on the coast. (*Fannin.*) Common winter visitant at Chilliwack. Tolerably common at Lake Okanagan, B.C., in winter. (*Brooks.*)

The only specimen of this bird from southeastern Alaska was obtained at Fort Kenai, Cook's Inlet, 19th May, 1869; over the entire portion of the territory from Behring Sea, east to the British boundary, and north to the Alaskan Mountains, it is a resident, rather common some places but nowhere abundant. (*Nelson.*) This species is found throughout the Yukon district; it is a resident, breeding wherever found in summer. (*Turner.*)

An immature bird in the brown plumage was shot at Hope, Cook's Inlet, Alaska, September, 1900; several others were seen at Homer. (*Osgood.*) During the fall of 1899, this bird (*invictus*) was met with in the Kowak valley, Cook's Inlet, Alaska. (*Grinnell.*) Two specimens were taken at Homer on September 15th, 1901. Several shrikes were seen on Kenai Mountains, Alaska, just above the edge of the timber line. They were found in pairs during the entire summer and no doubt breed there. (*Chapman.*)

BREEDING NOTES.—I have only met with this shrike nesting at Toronto once. I took a nest on May 28th, 1887; it contained five eggs and was situated quite conspicuously on the horizontal branch of a maple near the end and about 15 feet from the ground. The nest was bulky, the outside of sticks and strings with a few bright labels from meat tins worked in; the lining was of cow hair and felt; the nest was much larger than the white-rumped shrike builds. (*J. H. Fleming.*) At Ottawa I have taken its nest in a low cedar tree. The nest was composed of sticks, strips of bark, grass and some soft vegetable matter, lined with grass. Eggs 4, greenish-gray, very thickly spotted with reddish-brown and purplish. (*G. R. White.*) I met with these birds breeding some years ago near the St. Lawrence River. This was in a large rough field where thorn bushes had grown up among some half-grown elms. On turning to my notes written at the time, I find the nest I met with was nearly finished on the 17th April when there was still a great deal of ice in the river and snow in places two feet deep. It was about six feet from the ground and built

in the thickest part of the bush. I visited the nest again on 26th April when it contained 7 eggs. Incubation had commenced. The old birds were wild and kept away from the nest. The latter was compact and very firm, built with thorns and sticks outside, and lined with grass, bits of rag, hair and feathers. These eggs are like the other shrikes, but are larger and want the zone at the large end. Though I have often seen the bird since in the winter and early spring, I never met with another nest. (*Rev. C. J. Young.*) On June 11th, 1901, at Crescent Lake, Assa., I came across a nest and 6 eggs of the northern shrike, and secured the parent bird. The nest was built in a fire-killed willow at the edge of a bluff looking out over the prairie and built about five feet from the ground. The nest is a fine specimen, well built, about 9 inches in diameter, and composed externally of twigs and willow leaves. The centre is deep and well felted with down and animal's fur, and the eggs are larger than those of the white-rumped shrike. I have another large well-built nest and 6 eggs that Mr. Wenman took at Spotted Lake, northern Alberta on June 7th, 1897. This nest was also built in a willow 7 feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Ten; four taken at Ottawa by Prof. and W. T. Macoun; four taken at Indian Head, Assa., and two at Revelstoke, B.C. by Mr. Spreadborough.

One set of eggs taken at Lansdowne, Ont., by Rev. C. J. Young, April 24th, 1895.

622b. **Migrant Shrike.**

Lanius ludovicianus migrans PALMER. 1838.

A rare summer resident at Scotch Lake, York Co., N.B.; it bred here in 1900; have seen five young with one pair of adults. (*W. H. Moore.*) This bird is sometimes seen in Quebec. (*Lionne.*) A common summer resident at Montreal; breeds within the city limits. (*Wintle.*) A rare summer resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) This bird appears to be more common or at any rate has been noticed more during the last two years in the neighbourhood of Ottawa. During August and September, 1903, I saw several pairs and their young in March township, and saw one pair building their nest near Janeville on the

Rideau river, in April, 1903. On April the 6th, 1904, saw the first pair for this year, and on April the 18th, saw five pairs along the Rideau, between Cumming's and Billing's Bridge, have always found them in pairs and have not as yet seen more than two adults together. April the 21st saw a pair on Rockcliffe rifle range. (*E. F. G. White.*) This form is very common along the St. Lawrence in eastern Ontario; it breeds on Wolfe Island and about Kingston, also Frontenac and eastward through Leeds, Lanark and to the limit of Ontario; I did not meet with it in the county of Renfrew; it breeds in a thorn bush early in April and usually lays six eggs about April 19th; the nest is large and strong placed from five to ten feet from the ground. (*Rev. C J. Young.*) Reported as common at Beaumaris, Muskoka district by Mr. Tavernier. (*J. H. Fleming.*) Fairly common in former years but less so now; still it will be found every mile or two along the country roads; leaves us early in the fall; September 18th being the date of the latest observations; extends into the Bruce peninsula where it is not common; raises two broods annually. (*W. E. Saunders.*) This was a common summer resident at Guelph, Ont., a few years ago, but has been decreasing in numbers for the past three years; this year (1903) it was very scarce; arrives about March 26th, and leaves about August 18th. (*A. B. Klugh.*)

BREEDING NOTES.—I took a nest of this bird containing one egg, May 20th, 1883, at Hochelaga, which was built in a thorn tree; I visited the same place the following month, June 3rd, and found another nest built by the same species in a thorn bush close to the first, but some one had lodged a big stone in this nest; I also found a nest of this species May 24th, 1888, at Laprairie, built in a bush alongside the railroad track, and saw a shrike close to the nest; I found another nest of this shrike May 30th, 1891, at Hochelaga, built in a thorn tree, containing two eggs, incubated, and June 6th, 1891, Mr. Inglis found two fresh eggs of this bird in what appeared to be an old nest, near the same place. (*Wintle.*) I have found this bird to be the common species of shrike in eastern Ontario, for the most part keeping along the St. Lawrence, apparently not going further north than the county of Lanark; at least I have never seen it in northern Frontenac or in Renfrew county. It is a summer migrant arriving early in April; I have seen it as early as the 4th and commonly by the 17th; the nest is commenced about the end of April and usually contains the com-

plement of eggs by the first week in May. If the first nest is destroyed a second nest is built and eggs are laid towards the end of May; I have frequently met with the nests; they are common about Lansdowne, Ont., on Wolfe Island and in the vicinity of Kingston; one nest I found built in a thorn bush about three feet from the ground, was completed on 29th April; on the 4th May it contained five eggs, speckled and zoned and smaller than the eggs of *L. borealis*. The old birds were very tame and did not behave in the same way as those of the other species, which latter kept far off and perched high up in the trees; there were no large trees near this nest. May 6th, a nest in a similar location containing four fresh eggs; birds were very tame, allowing of my approach within a few feet; April 3rd, 1890, I saw a pair of migrant shrikes, and on the 28th found the nest in a thorn bush, containing seven eggs; on the 7th May found another nest with five eggs, incubated, built so low in the thorn bush that I could look into it when standing on the ground. April 18th, 1892, I found a migrant shrike's nest in a thorn bush in a pasture field, which on the 29th contained six eggs; May 2nd, 1898, found a migrant shrike's nest in a thorn bush with six fresh eggs; April 6th, 1899, I saw a pair of migrant shrikes, and their nest on the 29th April with six eggs, built as usual in a thorn tree in a pasture field and no great height from the ground; I could refer to perhaps twenty other instances of this bird breeding as above in thorn bushes in pasture fields the last week of April or first week in May. (*Rev. C. J. Young.*) This bird begins its nest around Ottawa in April and lays five, six or seven eggs; this nest is built in thorn trees or bushes from four to ten feet high, and is composed of branches, rootlets and strings, with woolly lining united to feathers and hairs. (*Garneau.*)

MUSEUM SPECIMENS.

Three specimens; one taken at Scotch Lake, N.B. by Mr. W. H. Moore, in 1902; two at Ottawa, April 21st, 1902, by Mr. E. F. G. White.

One set of seven eggs taken at Port Hope, Ont., by Mr. W. H. Meeking. Nest in a thorn bush $5\frac{1}{2}$ feet from the ground, composed of rootlets, grass and hairs.

622a. **White-rumped Shrike.**

Lanius ludovicianus excubitorides (SWAINS.) COUES. 1872.

This is the characteristic species of the whole region along the 49th parallel from Pembina to the Rocky Mountains. At Turtle Mountain during the last week in July I found a family of these birds in an isolated clump of bushes. The young, four in number, had just left the nest, which was discovered in the crotch of a bush five or six feet from the ground. The nest proper rested upon a bulky mass of interlaced twigs; it was composed of some white weed (*Anaphalis margaritacea*) that grow abundantly in the vicinity, matted together with strips of fibrous bark. (Coes.)

Common summer resident of half-wooded districts in Manitoba. Breeding freely at Carberry, Shell River and Qu'Appelle. (Tompson-Seton.) First seen at Indian Head, Assa., on May 16th, 1892, they were never common; a few breed there, as they were seen up to the end of June; first seen at Medicine Hat, Assa., on May 14th, 1894, later they became common and doubtless bred in the river valley; apparently breeding near Pend d'Oreille on the Milk River, Alta., July 10th, 1895; observed a pair on May 18th, 1897, at Edmonton, Alta., building a nest in a clump of willows. I unfortunately shot the female; nest nearly finished, composed of weeds. (Spreadborough.) This is a more southern bird than *Lanius borealis* and does not seem to advance further north than Lat. 54°. Its habits are precisely similar to the other, and its food, which was grasshoppers, the same. They are numerous on the plains. Mr. Drummond found a nest in a willow bush, in the beginning of June, which was built of twigs of *Artemisia* and dried grass and lined with feathers. (Richardson.)

MUSEUM SPECIMENS.

Four; two taken at Indian Head, Assa., in May, 1892, and two at Edmonton, Alta., in May, 1897, by Mr. Spreadborough.

622b. **California Shrike.**

Lanius ludovicianus gambeli RIDGW. □ 1887.

One taken in April, 1888, at Chilliwack, Fraser River valley, B.C., 1888. (Brooks.) This specimen is referred here on the authority of Mr. W. Brewster.

FAMILY XLVIII. **VIREONIDÆ.** VIREOS.CCXXIII. **VIREO** VIELLIOT. 1807.624. **Red-eyed Vireo.***Vireo olivaceus* (LINN.) BONAP. 1826.

One specimen received in Copenhagen from Greenland in 1844. (*Arct. Man.*) Very abundant all down the Moose River; not observed further north than Moose Factory. (*Spreadborough.*) A common summer resident at Halifax, N.S. (*Downs.*) One individual seen on Sable Island, N. S., on September 30th, and one on October 8th, 1902. (*James Bouteillier.*) Many old nests noticed at Sydney, Cape Breton Island. First seen May 18th, 1902. (*C. R. Hart.*) Observed at Baddeck and Margaree, Cape Breton Island, July, 1898; in woods, Union Road, Prince Edward Island, July 5th, 1888. (*Macoun.*) A common and in a few localities abundant bird, here as elsewhere a tireless songster. It prefers deciduous trees, particularly large maples. (*Dwight.*) Common summer resident in the interior of New Brunswick, but only seen at St. John in the migrations. (*Chamberlain.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Common in Restigouche valley, N.B. (*Brittain & Cox.*) Taken at Beauport; not rare around Quebec. (*Dionne.*) An abundant summer resident around Montreal. Breeds in the city and in Mount Royal park; I have found nests from June 6th to August 13th, and observed them here from May 11th to October 6th. (*Wintle.*)

A common and abundant summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A common summer resident in eastern Ontario. (*Rev. C. J. Young.*) A very common summer resident in Parry Sound and Muskoka districts of Ontario. (*J. H. Fleming.*) Abundant everywhere in Algonquin Park, Ont.; a pair nested in a mountain ash near the buildings at C ache Lake; the nest is made chiefly of birch bark. I watched them building, they always stopped work as soon as the sun was well up. It seemed to get too warm for them as the tree was in the open; very abundant all down the Moose River; not observed further north than Moose Factory. (*Spreadborough.*) Very common summer resident at Guelph, Ont. Arrives about May 10th and leaves about September 23rd. (*A. B. Klugh.*) A common sum-

mer resident; breeds in the hardwood woods; nests are quite common at Penetanguishene. (*A. F. Young.*)

Abundant about Lake Winnipeg, at Norway House, and between Norway House and Oxford House. In the vicinity of Oxford House its song was heard almost continually. After leaving that point we heard nothing more of the bird. (*E. A. Prebles.*) Abundant at Pembina, where it was breeding in June and again on the upper Missouri. (*Cones.*) Abundant summer resident of woodlands in Manitoba, and breeds in suitable places. In July, 1883, a nest was taken which contained one bird ready to fly, another half grown and an egg which was near being hatched. The nest was composed outwardly of wasp-nest paper. (*Thompson-Seton.*) Abundant at Grand Rapids of Saskatchewan. Breeding at Chemawawin. One of the most conspicuous songsters in the country. (*Nutting.*) First noted at the Grand Rapids of the Athabasca; common down the river to Fort McMurray; common up the Clearwater to Methye Portage; very common between Methye Lake and Isle à la Crosse. (*J. M. Macoun.*) This species was shot at Cumberland House, on the Saskatchewan, 2nd June, 1827. (*Richardson.*) North to Fort Simpson, on the Mackenzie River; rare. (*Ross.*) First seen at Indian Head, Assa., June 7th, 1892; soon after they became common, and began to breed; the first arrivals at Medicine Hat, Assa., were on May 19th, they never became common before I left for Crane Lake; a pair seen at Old Wives' Creek, Assa., May 29th, 1895; another pair seen at Medicine Lodge, on Rocky Creek, south of Wood Mountain, June 14th, 1895; first seen May 13th, 1897, at Edmonton, Alta., on June 3rd found a nest in a small alder tree about ten feet from the ground, the nest had three of its own and one cowbird's egg; common from Lesser Slave Lake to Peace River Landing, Lat. 56° 15', in June, 1903; common from Edmonton to Athabasca Pass; also in the valley of McLennan River, B.C., in June, 1898; seen in the Crow's Nest Pass, July 29th; rather scarce at Banff, Rocky Mountains in June, 1891, breeding in the Bow valley; breeding in the Columbia River valley at Robson in June, 1890, nest in the fork of a tall shrub; quite common near the International Boundary, between Trail and Kettle River, B.C., in the summer of 1902; seen and heard at Kamloops and Agassiz, B.C., May, 1889; common at Chilliwack in the spring of 1902, and seen along the river later in the summer. (*Spreadborough.*)

Common at Ashcroft and abundant at Ducks. (*Streator.*) The most abundant vireo both east and west of the Coast Range in B.C. (*Brooks.*) East of the Coast Range this species is commonly distributed, and a few were found at Lake La Hache, B.C. (*Rhoads.*)

BREEDING NOTES.—A nest taken by me was a neat cup suspended by the brim in the embrace of a forked twig. It was built of strips of bark, pine needles, pieces of wasp's nests and paper. Apparently agglutinated with the saliva of the bird, and lined with grass. Eggs 3 to 5, pure white, marked with fine dark reddish-brown spots toward the larger end. (*G. R. White.*) This species lays two or three eggs during June in its swinging nest which is generally placed in a sapling maple. A few nests have been found in conifers. (*W. H. Moore.*) This species builds a suspended nest, cup-shaped, the brim attached to a small horizontal fork at the end of a branch, from two to thirty feet from the ground, The nest is made of strips of thin flexible bark, the outside ornamented with the white bark of the birch, and the inside lined with hair-like roots, fine leaves or very small twigs. Nesting season in June. Three or four eggs are laid. Nests taken at Ottawa and at Lake Nominingue 100 miles north of Ottawa. (*Garneau.*)

MUSEUM SPECIMENS.

Seventeen; one purchased with the Holman collection in 1885; five taken at Ottawa by Prof. Macoun; two taken at Ottawa by Dr. F. A. Saunders in August, 1890; one taken at London, Ont., on May 12th, 1885, by Mr. W. E. Saunders; one taken at Banff, Rocky Mountains, June 13th, 1891, two at Edmonton, Alta., May 21st, 1897, one at Robson, B.C., June 20th, 1890, two at Trail, B.C., June, 1902, one at Kamloops, B.C., June 19th, 1889, and one at Chilliwack, B.C., May 2nd, 1901, all by Mr. W. Spreadborough.

Three sets of eggs; one of four eggs, taken at Edmonton, Alta., June 3rd, 1897. one of four eggs at Trail, B.C., June 12th, 1902, both by Mr. W. Spreadborough; one of three eggs at Robson, B.C., June 24th, 1890, by Prof. Macoun.

625. **Yellow-Green Vireo.**

Vireo flavoviridis (CASS.) BAIRD. 1858.

One specimen of this species was taken at Godbout in May 1883, by Mr. Comeau. (*Dionne.*)

626. *Philadelphia Vireo*.

Vireo philadelphicus (CASS.) BAIRD. 1858.

One individual obtained from Moose Factory, James Bay, June 2nd, 1860, by Drexler. (*Packard*.) A rare summer visitor around Ottawa. (*Ottawa Naturalist*, Vol. V.) I have met with this bird two or three times. Once I found the nest close to Lansdowne station in Leeds Co., Ont. This was in June, 1896. It was built in a bush of *Spiraea salicifolia*, was prehensile like the other vireo's but not so neatly or closely constructed. It contained one vireo's egg and two cowbird's. The egg is identical with, but smaller than that of the red-eyed. This nest was in a damp pasture field where there were swampy places overgrown with alders and *Spiraea*. (*Rev. C. J. Young*.) A not uncommon bird in the Parry Sound district. I believe they breed as they are always paired by the middle of May. (*J. H. Fleming*.) This bird so closely resembles others of its family that it is difficult to decide as to its relative abundance at Toronto. I seldom fail to see one or more specimens each season. (*J. Hughes-Samuel*.) A regular migrant, though never yet found to be common. Two or three are all that any one observer, will usually note in one migration. (*W. E. Saunders*.) Seen as a passing migrant at Guelph, Ont. (*A. B. Klugh*.)

A peculiar song heard on Hill River, Keewatin, July 8th, was probably the song of this species, but I was unable to secure the bird. (*E. A. Prebles*.) Although only two specimens were taken it undoubtedly breeds about Pembina on the 49th parallel, in the heavy timber of the river bottoms, but I was not so fortunate as to discover its nest, a circumstance the more to be regretted, since neither the nest nor eggs have yet come to light. (*Coues*.) Summer resident of thickets in Manitoba; nest found on Duck Mountain. (*Thompson-Seton*.) Not uncommon and breeding at Edmonton, Alta., in May, 1897. Not observed in any other locality west of Manitoba. (*Spreadborough*.)

BREEDING NOTES.—On June 9th, 1884, near Fort Pelly, on the upper Assiniboine, I found a vireo nesting in a small bluff of poplar and willow; the chosen site was in the twigs of a willow some 10 feet from the ground; the nest was the usual suspended cup formed of fine grass and strips of birch bark; on the ground immediately below it was another nest of precisely the same make and ma-

terials; intending to take this with me on my return I hung it in the tree, but when I came back I found it on the ground, it was again hung as before, and again thrown down, although it had been firmly attached to a twig; this happened several times so that there was little doubt that it was the vireo's doing, but why? I cannot imagine. On June 13th, the vireo began to sit on her four eggs; I shot her and found her to correspond exactly with Coues' description of *phila delphicus*, except that the yellow on the breast was quite bright; the eggs closely resembled those of the red-eyed vireo, but were destroyed by an unfortunate accident before they were accurately measured. (*Thompson-Seton*.) At Crescent Lake, Assa., June 11th, 1901, I found the nest and four eggs of this species; nest of fine strips of bark, grass and fine roots, built in a poplar tree; at Long Lake, Manitoba, on June 12th, 1894, I found a nest and four eggs of this species suspended to the branch of a willow six feet from the ground. (*W. Raine*.)

MUSEUM SPECIMENS.

Three taken in May and June, 1897, at Edmonton, Alta., by Mr. W. Spreadborough.

627. Warbling Vireo.

Vireo gilvus (VIEILL.) BONAP. 1838.

A common summer resident at Halifax, N.S. (*Downs*.) Not uncommon at Calais on the boundary of New Brunswick. (*Chamberlain*.) A rare visitant in summer at Quebec. (*Dionne*.) A scarce transient visitant at Montreal; I have met with only two specimens of this species which I took on Montreal Island. (*Wintle*.)

An abundant summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A common summer resident, nesting high up in maple and elm trees in eastern Ontario. (*Rev. C. J. Young*.) I have taken this species several times at Emsdale, Muskoka district in May; Mr. Tavernier has taken the species at Beaumaris, Muskoka. (*J. H. Fleming*.) Abundant along the city streets in London, Ont.; but somewhat less so in the country; eggs usually four, but sometimes only three, nests always high up, not less than 25 feet from the ground, while the red-eyed vireo seldom builds higher than eight feet and usually less; the male bird takes his share of the work of incubating and sings freely while sitting. (*W. E. Saunders*.) Common summer resident at Guelph, Ont.;

prefers city shade trees and orchards to the bush; arrives about May 8th, leaves about September 20th. (*A. B. Klugh.*) Observed in abundance at Pembina, on the 49th parallel, and again found at the opposite extremity of the line, the specimen captured in the Rocky Mountains, being probably the slight variety *swainsoni*; at Pembina the warbling vireo was in full song and breeding in June; a nest found on the 11th of that month was empty; but in this latitude few of the small insectivorous birds appear to lay before the third week in June. (*Coues.*) Summer resident of woodlands in Manitoba; common on the south slope of Riding Mountain and west side of Duck Mountain. (*Thompson-Seton.*) First seen at Indian Head, Assa., June 6th, 1892, after this date it became common and commenced to breed; first arrivals at Medicine Hat, Assa., May 17th, 1894, evidently intending to breed; seen along Old Wives' Creek, Assa., in June, 1895; along St. Mary's River and at Waterton Lake, in Alberta, in July, 1895. (*Spreadborough.*)

MUSEUM SPECIMENS

Eight; one purchased with the Holman collection in 1885; two taken at Ottawa in May, 1888, by Prof. Macoun; one taken at Ottawa, May 25th, 1891, by Dr. F. A. Saunders; one taken at Indian Head, Assa., June 14th, 1892, one at Old Wives' Creek, Assa., May 22nd, 1895, and two at Medicine Hat, Assa., May, 1894, all by Mr. W. Spreadborough.

627a. **Western Warbling Vireo.**

Vireo gilvus swainsoni BAIRD. 1858.

Common from Lesser Slave Lake to Peace River Landing, Lat. 56° 15' in June, 1903; first seen at Edmonton, Alta., May 8th, 1897, breed in the vicinity; observed from Edmonton to McLeod River in poplar woods in June, 1898; not rare in foothills from Calgary south to Crow's Nest Pass; a common species at Banff, Rocky Mountains, breeding in the trees in the valley; shot at Revelstoke, B.C., on May 6th, 1890, after which they became common, also at Deer Park and Robson late in June, 1890; observed several at Trail near the International Boundary, in 1902, not very common; this species is rare at Kamloops, but not uncommon at Agassiz, Port Heney and Hastings, B.C.; common at Chilliwack B.C., in the spring of 1901, a few were also seen at McGuire's

further up the river; a common summer resident on Vancouver Island; common at Victoria, Sooke and Comox in July, 1893. (*Spreadborough.*) North to Fort Simpson on the Mackenzie River; rare. (*Ross.*) Very numerous everywhere; breeds. (*Streator.*) East and west of Coast Range; common summer resident. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Collected west of Rocky Mountains in British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Thirty; four taken at Edmonton, Alta., in May, 1897; two at Canmore, Alta., May, 1891; three at Banff, Alta., May, 1891; four at Revelstoke, B.C., May, 1890; one at Deer Park, B.C., June 14th, 1890; three at Trail, B.C., June, 1902; one at Spence's Bridge, B. C., May 29th, 1889; one at Agassiz, B.C., May 10th, 1889; three at Hastings, Burrard Inlet, B.C., in April, 1889, and three at Victoria, Vancouver Island, May, 1893, all by Mr. Spreadborough.

628. **Yellow-throated Vireo.**

Vireo flavifrons VIEILL. 1807.

A rare summer resident at Montreal; Mr. W. W. Dunlop observed this species paired in Hochelaga woods, and shot two specimens there May 20th, 1883. (*Windle.*) A summer migrant in Newfoundland. (*Recks.*) A rare summer visitor around Ottawa. (*Ottawa Naturalist*, Vol. V.) I noticed one specimen of this species at Rockport, Leeds Co., Ont., which appeared to be nesting in a large hickory tree near the St. Lawrence River. (*Rev. C. J. Young.*) One example taken at Beaumaris, Muskoka district by Mr. Tavernier. (*J. H. Fleming.*) I have only come across this bird in limited numbers and then only during the spring and fall migrations. (*J. Hughes-Samuel.*) Fairly common everywhere near London, Ont. Not observed in North Bruce. (*W. E. Saunders.*) A passing migrant at Guelph, Ont. Not common; seen about May 12th, and again about September 2nd. (*A. B. Klugh.*) A rare summer resident in Manitoba; July 19th, 1884, Millar Christy brought me a specimen of a yellow-throated vireo from Moose Jaw, Assa. (*Thompson-Seton.*) Found breeding at Yorkton, Assa., June 1st, 1901. (*W. Raine.*)

MUSEUM SPECIMEN.

One purchased with the Holman collection in 1885.

629. **Blue-headed Vireo.***Virco solitarius* (WILS.) VIEILL. 1819.

Probably occurs in Nova Scotia. (*Downs.*) Not rare at Baddeck and Margaree, Cape Breton Island, July, 1898; seen at Hunter's River, Prince Edward Island, July 2nd, 1888. (*Macoun.*) At Souris, Prince Edward Island, one day I was attracted by the song of this bird and soon saw the performer. (*Dwight.*) A rare summer resident at St. John, N.B. (*Chamberlain.*) Observed only at one point in the valley of the Restigouche River, N.B. (*Brittain & Cox.*) A tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) On June 23rd heard a male singing at Macnain Cove, Cape Breton Island. (*Brewster.*) I noticed an example of this species on the Magdalen Islands in June, 1897, and have no doubt it breeds there. (*Rev. C. J. Young.*) Taken at Beauport; not uncommon around Quebec. (*Dionne.*) A rare transient visitant at Montreal. I have met with only two examples of this vireo in this district. (*Wintle.*)

A moderately common summer visitor around Ottawa. (*Ottawa Naturalist*, Vol. V.) Not uncommon in the districts of Parry Sound and Muskoka in May. They probably remain to breed. (*J. H. Fleming.*) Not common in Algonquin Park, Ont. A few were seen in the spruce woods near C ache Lake usually well up in the tops of the trees. (*Spredborough.*) Not common as a migrant, and not known to breed at London, Ont. (*W. E. Saunders.*) A passing migrant at Guelph, Ont. Not common; seen about April 30th, and again about Sept. 20th. (*A. B. Klugh.*) One (a male) taken at Oxford House, July 3rd, and one heard singing in a swamp bordering Knee Lake July 5th. (*E. A. Prebles.*)

One specimen of this rather rare species was secured at Pembina, which is probably its northern limit. It was taken in the timber of the river bottom, frequented by three other species of the same genus. (*Coues.*) A rare summer resident in Manitoba. On June 10th, 1884, at Duck Mountain, a solitary vireo was observed. (*Thompson-Setou.*) One specimen secured at the Grand Rapids of the Saskatchewan. (*Nutting.*) First seen May 11th, 1897, at Edmonton, Alta., common in spruce woods by the river; doubtless breeding; always seen in or near spruce woods; common from Lesser Slave Lake to Peace River Landing, Lat.

56° 15', in June, 1903. (*Spreadborough.*) At Clandeboye Bay, Lake Manitoba, June 13th, 1894, I found the nest and four eggs of this species about seven feet up in a willow. At Oak Lake, Manitoba, May 23rd, 1893, I found a nest and four eggs of this species. It is rather rare in Assiniboia. (*W. Raine.*)

MUSEUM SPECIMENS.

Seven; one purchased with the Holman collection in 1885; one taken in Algonquin Park, Ont., June 8th, 1900, one taken at Peace River Landing, June 15th, 1903, and four at Edmonton, Alta., May 22nd, 1897, all by Mr. Spreadborough.

One set of four eggs taken at Wolfville, N.S., June 9th, 1901, by Mr. H. F. Tufts. Nest hanging from a hemlock bough about seven feet from the ground. It was made of bark and fragments of hornets' nests, lined with dry grass.

629a. **Cassin's Vireo.**

Vireo solitarius cassinii (XANTUS) HENSH. 1874.

Rather rare at Canmore, but breeding in June, 1891; not uncommon at Deer Park, Columbia River, and found breeding on Pass Creek at Robson, B.C.; common in thick woods on the International Boundary between Trail and Kettle River, B.C., in the summer of 1902; apparently rare in the Fraser valley, only taken at Agassiz and Westminster Junction, 1889; common at Chilliwack, B.C. in the spring, observed young out of the nest by June 5th, 1901; first seen at Victoria, Vancouver Island, April 27th, 1893, common by May 5th; apparently common at Comox, Nanaimo, Sooke, and Stubb's Island on the west coast. (*Spreadborough.*) Sumas and Vancouver Island. (*Lord.*) Rare, only two specimens taken, one at Ashcroft, the other at Ducks. (*Streator.*) East and west of Coast Range; summer resident. (*Fannin.*) Summer resident at Chilliwack; not common. (*Brooks.*) This species is represented by specimens from nearly every locality in British Columbia, including Vancouver Island, Lac La Hache and Vernon; it is found in the open timber at higher elevations. (*Rhoads.*)

MUSEUM SPECIMENS.

Fourteen; one taken at Canmore, Rocky Mountains, May 27th, 1891; one at Robson and another at Deer Park, Columbia River, B.C.; two at Trail, B.C., in May, 1902; one at Chilliwack, B.C.,

June 5th, 1901; one at Agassiz, B.C., 1889; and seven at Victoria, Vancouver Island, in May, 1893, all taken by Mr. Spreadborough.

631. **White-eyed Vireo.**

Vireo noveboracensis (GMEL.) BONAP. 1824.

Audubon, Vol. IV., p. 148, states that a few were seen in Labrador. (*Packard*.) One shot at South Bay near St. John, N.B. (*Chamberlain*.) A single bird was observed for some minutes in full song, and within five or six feet, on September 8th, 1899, along the Humber River, Newfoundland. (*Louis H. Porter*.) Am positive I saw this species, August 30th, 1901, at Glace Bay, Cape Breton Island; and that I heard it severa' times before in the same locality. (*C. R. Hart*.) About two miles from Woodstock, Ont., we have a piece of woodland composed of small cedars with here and there a little grassy glade and some patches of hawthorns and second growth maple; on the 25th April, 1902, I shot in this bush an example of this species; this identification has been confirmed by Mr. W. E. Saunders, of London, to whom I have sent the specimen. (*W. D. Hobson* in *The Ottawa Naturalist*, Vol. XVI., p. 163.)

BREEDING NOTES.—In the first week of June in the year 1898, while skirting the top of Rosedale ravine, at Toronto, I came across this bird nesting in a large beech. The nest was built rather deeper than that of the red-eyed and warbling variety and was hung in the fork of a limb that reached down to about five feet from the ground; I was able to approach to within six or eight feet before the bird flushed, and so had a good chance of securing it; not being familiar with the white-eyed variety at this time, I was strongly impressed with the white iris, and on returning home it proved to be the positive identification of this bird. (*A. S. Goss*.)

632e. **Anthony's Vireo.**

Vireo huttoni obscurus ANTHONY. 1890.

This species may be considered a rare visitor to Vancouver Island; I secured one near Victoria; this specimen, also two secured by Mr. Maynard in the spring of 1891, near the same place are of this strongly marked race. (*Rhoads*.)

FAMILY XLIX. **MNIOTILTIDÆ**. WOOD WARBLERS.CCXXIV. **MNIOTILTA** VIEILLOT. 1816.636. **Black and White Warbler.***Mniotilta varia* (LINN.) VIEILL. 1818.

A specimen was obtained at Moose Factory, May 13th, 1860, and also on the 30th by Drexler. (*Packard*.) Quite common at Moose Factory, June, 1896; none seen elsewhere. (*Spreadborough*.) Apparently a common summer migrant in Newfoundland. (*Reeks*.) Common summer resident at Halifax, N. S. (*Dovens*.) A common migrant at Sydney, Cape Breton Island, N.S. (*C. R. Harte*.) Not rare at Baddeck and Margaree, Cape Breton Island, July, 1898; seen at Mount Stewart, Prince Edward Island, July 11th, 1888. (*Macoun*.) Occasionally seen or its "wiry" song heard, though not very common. (*Dwight*.) A common summer resident at St. John, N.B. (*Chamberlain*.) Rare on the Magdalens, but very likely breeds. (*Bishop*.) On July 9th a male was heard singing at Fox Bay, Anticosti; another was taken a little later. (*Brewster*.) Taken at Beauport; not rare at Quebec. (*Dionne*.) A scarce summer resident but common migrant at Montreal. Observed here from May 3rd to August 22nd. (*Windle*.)

A common summer resident but more abundant during migrations. (*Ottawa Naturalist*, Vol. V.) A fairly common summer resident in the woods of eastern Ontario. I once found a nest in a mossy bank in a large wood, containing four infertile eggs and one young bird on June 29th, 1894, near Lansdowne, Ont. (*Rev. C. J. Young*.) A common summer resident in the districts of Parry Sound and Muskoka. (*J. H. Fleming*.) Not common in Algonquin Park, Ont. Only observed two from May 25th to June 15th, 1900. (*Spreadborough*.) Abundant near Toronto and breeds there. On 25th April, 1896, saw large numbers of them. (*J. Hughes-Samuel*.) Near London, Ont., this species is confined to the coniferous swamps where it breeds in fair numbers. (*W. E. Saunders*.) A common summer resident at Guelph, Ont. Arrives about April 28th and leaves about September 12th. (*A. B. Klugh*.)

A single specimen was taken at Pembina where it probably breeds, though the fact was not ascertained. Not found further west. (*Cones*.) This species is widely distributed in Manitoba.

It is an abundant species on Duck Mountain in that province, in spruce woods. (*Thompson-Scou.*) First seen at Avenue, Manitoba, May 12th, 1903, and last was seen August 27th, 1903; it was common on May 12th. (*Norman Criddle.*) This seems to be a rare migrant at Indian Head, Assa., it was first seen May 11th and disappeared by the end of the month, not seen further west on the prairie; one individual seen at Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; first seen at Edmonton, Alta., May 6th, 1897, not very common, seen chiefly in the mixed timber along the river hardly ever seen in poplar woods; a few individuals seen in the foothills south of Calgary. (*Spredborough.*) North to Fort Simpson on the Mackenzie River; very rare. (*Ross.*) One specimen found dead in the woods at the Grand Rapids of the Saskatchewan. (*Nutting.*)

BREEDING NOTES.—Nest on the ground, composed of bark, grass and leaves, lined with plant down and hair, in woods near Ottawa. Eggs 4-6, creamy-white, spotted and sprinkled with reddish-brown. (*G. R. White.*) This warbler is one of the first of the main drove of warblers that arrives from the south. They come early in May and herald their arrival by singing their weak see-see-see song. The young are able to be about with the adults by the 10th of July. Although resembling the parent birds, the stripes are not so well defined in their plumage as are those of the parents. The old birds are very alert and watchful when the young are unable to know danger themselves. (*W. H. Moore.*) On the southeast corner of the farm lot that adjoins Wildwood on the north, and but a few rods from the boundary line, in a stretch of low ground, there stands the turned-up root of an old fallen tree, the top of which is over a dozen feet from the level ground. In what was once the "upper" side of this "turn-up" and about half-way in its height, I discovered on the 28th of May a nest containing three eggs which, at the time, I took to be those of a Canadian warbler. Three days after I revisited the site, found the mother bird "at home," and seated on the nest. At my near approach she flushed off and down upon the ground, where with outspread and quivering wings, and the venting of a few notes, she attempted to draw my attention from her treasures. Gazing down on the interesting little creature within a few feet of where I stood, I was not much surprised, though somewhat disappointed, to note that the specimen was of

the *M. varia* species, and that it was her nest that was placed before me, and which now contained five beautifully spotted fresh eggs. The cavity in which the nest was placed had been partly excavated, probably by the bird itself; but in order to support the foundation quite a large quantity of dead leaves and strips of bark had been used, and inside of this there was a lining of fine vegetable materials and some animal hair. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Nine; four taken at Ottawa, by Dr. F. A. Saunders in 1891; one at Ottawa by Prof. Macoun in 1888; one at Indian Head, Assa., in June, 1892, and one at Edmonton, Alta., May 7th, 1897, by Mr. W. Spreadborough; one purchased with the Holman collection in 1885.

CCXXV. **PROTONOTARIA** BAIRD. 1858.637. **Prothonotary Warbler.**

Protonotaria citrea (BODD.) BAIRD. 1858.

A rare migrant in New Brunswick. (*Chamberlain.*) One specimen taken at Hamilton, Ont., May 23rd, 1888. (*Mellvraith.*) I have every reason to suppose that this bird occasionally crosses the St. Lawrence and visits Ontario, I even think it occasionally breeds, for I came across a nest located in the stub of a willow at the "drowned lands" some eight miles north of Gananoque, which contained one egg, and which corresponds with the description of site of nest and authentic egg of this bird; the date was June 10th, 1896. (*Rev. C. J. Young.*)

CCXXVI. **HELMINTHOPHILA** RIDGWAY. 1882.642. **Golden-winged Warbler.**

Helminthophila chrysoptera (LINN.) RIDGW. 1882.

Rev. C. J. Young, of Sharbot Lake, Ont., one of our closest observers, writes me that he saw this species on June 17th and 30th, 1897, on the Magdalen Islands, and that it was evidently breeding; I doubt the identification, but make the record. (*Macoun.*) Fairly common summer resident throughout western Ontario; not noted in Bruce county. (*W. E. Saunders.*) I have met with this species on two occasions near Hamilton, Ont.; have also heard of

its being noticed at Port Rowan. Dr. Macallum sees it every spring and summer near his residence at Dunnville, Ont. (*Melleraith.*) By the kindness of Mr. W. Hine, of Winnipeg, Man., I am enabled to record the capture of a golden-winged warbler taken by him near Winnipeg on or about May 27th, 1887. (*C. F. Batchelder* in *The Auk*, Vol. VII, p. 404.)

MUSEUM SPECIMEN.

One purchased with the Holman collection in 1885.

645. **Nashville Warbler.**

Helminthophila ruficapilla (WILS.) RIDGW. 1882.

Obtained twice in Greenland; once at Godthaab about 1835, and again at the Fiskerøes, August 31st, 1840. (*Arct. Man.*) A summer migrant in Newfoundland, but apparently rare. (*Reeks.*) A not very common summer resident at Halifax, N.S. (*Downs.*) A few specimens seen at Baddeck, Cape Breton Island, July, 1898. (*Macoun.*) Rather abundant at Tignish, Prince Edward Island, and not met with elsewhere. (*Dwight.*) A common summer resident at St. John, N.B. (*Chamberlain.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Heard singing in the woods at Gaspé Bay, Quebec, July 15th. (*Brewster.*) Taken at Charlesbourg and common around Quebec. (*Dionne.*) A scarce transient visitant; I have observed two examples of this warbler here, both of them males, which I shot on the spur of Mount Royal; Mr. Kuetzing says he has found this species common here, and that they breed in the swampy parts of the woods on the Island of Montreal. (*Wintle.*)

A summer resident at Ottawa, Ont.; a nest of this species with four eggs was taken in Dow's swamp, 13th July, 1881; in 1882 the bird was noted as quite common. (*Ottawa Naturalist*, Vol. V.) A summer resident in Parry Sound and Muskoka districts; breeding in swampy places. (*J. H. Fleming.*) Common in tamarac swamps in Algonquin Park, Ont., in June, 1900. (*Spreadborough.*) Very plentiful in spring at Toronto, especially among scattered patches of scrub oak trees where they seem to find palatable diet among the slowly expanding buds; I have not observed these birds in such numbers during the fall migrations. (*J. Hughes-Samuel.*) Breeds in a very few restricted localities in small numbers; often common as a migrant at London, Ont.;

more common in Bruce county in summer. (*W. E. Saunders.*) Abundant as a migrant in spring, and fairly common in the fall; breeds sparingly at Guelph, Ont.; arrives about May 12th, leaves about September 22nd. (*A. B. Klugh.*)

A rare summer resident of woodlands in Manitoba; on June 11th, 1884, I found a Nashville warbler in full song and evidently breeding. (*Thompson-Seton.*) At the south end of Lake Manitoba, near Portage la Prairie, Man., on June 13th, 1894, I took a nest and four eggs of this species; the nest was built at the side of a mossy knoll in a bluff. (*W. Raine.*) This is a rare species at Avenue, Manitoba; probably breeding. (*Norman Criddle.*) A single individual of this species was killed in the woods at Cumberland House, on May 15th, as it was hopping among the branches of a tree. (*Richardson.*) North to Fort Resolution on Great Slave Lake; rare. (*Ross.*)

BREEDING NOTES.—Arriving generally about the middle of May these birds are mostly found in young second growth wood. One nest found was placed on the ground in a depression on the side of a mound in a moist bush-grown pasture and was well concealed by overhanging ferns, grasses and weeds, and was composed of thin dried grass stems and moss, and was lined with fruit stems of hair moss. It contained three fresh eggs July 15th. The bird flew from the nest on being discovered and was silent and did not appear for nearly an hour. This species is fairly common here, but at St. John, Mr. Banks informs me they are rare. (*W. H. Moore.*) A nest containing two fresh eggs of this bird and two cowbird's eggs was found near Ottawa, June 1st, 1899. It was built on the ground by the side of a log in a marshy place, and made with green moss, grass and hairs. The bird left the nest only after the log had been shaken a couple of times; nest 3'50 x 1'50 and 2'10. (*Garneau.*)

MUSEUM SPECIMEN.

One bought with the Holman collection in 1885.

645a. **Calaveras Warbler.**

Helminthophila ruficapilla gutturalis RIDGW. 1885.

First seen at Revelstoke, B.C., May 9th, 1890; the birds seemed to come from the west through the Eagle Pass and not up the Columbia; came in great numbers on the 13th, but seemed to

avel northward; at Robson they were found breeding 1,000 feet above the Columbia on June 25th, 1890; observed throughout the district between Trail and Kettle River, near the International Boundary, quite common at Trail where a nest was taken on May 24th, 1902, it was placed on the ground between two stones, overhung with grass; the nest was made of the inner bark of trees lined with hair and quills from the western porcupine. (*Spreadborough.*) Common in the Okanagan district of B.C. (*Brooks.*) Two examples were taken at Vernon, B.C., and others were seen at Nelson. They may be considered as neither rare nor abundant in British Columbia. (*Rhoads.*) Taken at Vernon, Lake Okanagan, by Mr. A. C. Brooks in 1898. (*Fannin.*)

MUSEUM SPECIMENS.

Seven; one taken at Revelstoke, B.C., May 7th, 1890; six taken at Trail, B.C., in May, 1902. One set of five eggs taken at Trail, B.C., May 24th, 1902, all by Mr. W. Spreadborough.

646. **Orange-crowned Warbler.**

Helminthophila celata (SAY) RIDGW. 1882.

Of rare occurrence at St. John, N.B., but has never been recorded at Scotch Lake. (*W. H. Moore.*) One example taken at Beauport near Quebec, in 1890. (*Dionne.*) A rare transient visitant at Montreal. I shot a male specimen of this warbler, May 21st, 1890, on the spur of Mount Royal and it is the only one of the kind I have met with here. (*Wintle.*) A casual in the vicinity of Ottawa; a male was shot by Mr. E. F. G. White, Sept. 27th, 1885, near the eastern end of the city. (*Ottawa Naturalist*, Vol.V.) Occurs in Toronto regularly, apparently not uncommon; took one in Toronto on October 10th, 1898, and another on May 7th, 1899. (*J. H. Fleming.*) During several seasons of careful observations I have only once met with a small party of these warblers; this was on 12th May, 1900 when I was fortunate in obtaining two specimens, one of which I was surprised to find on dissecting was a female. The plumage of this bird is very plain and but for the frequency of its call note or "chep" might easily pass unnoticed; and even when its presence is detected it is so remarkably active and darts so rapidly from tree to tree that its capture is by no means certain. (*J. Hughes-Samuel.*) A regular migrant at London, Ont.; but never common. (*W. E. Saunders.*) One was taken

in a willow thicket at York Factory, July 16th, 1901, and the species was again noted near Pine Lake, September 13th and at Duck Point, Playgreen Lake, September 19th. (*E. A. Prebles.*)

Observed during the fall migration, in September, along the Mouse (Souris) River, where it was abundant. (*Cones.*) Common summer resident in woodlands, in Manitoba; evidently breeding in the woods around Carberry. (*Thompson-Scton.*) First seen at Avenue, Manitoba, on May 12th, 1903, was common on the 17th and disappeared on September 16th. A common breeding species. (*Norman Criddle.*) This is a rare summer migrant at Indian Head, Assa. It was first seen at Indian Head, May 20th, 1892, and disappeared on the 25th; first seen at Medicine Hat, Assa., May 9th, 1894, common by the 15th, and were all gone by the 20th. (*Spredborough.*) North to Fort Resolution on Great Slave Lake; rare. (*Ross.*) This is one of the rarest warblers that breeds on the Anderson River where four or five nests were found containing from four to six eggs. The nests were made of hay or grasses, lined with deer hair, feathers and finer grasses, and were found on the ground in the shade of a clump of dwarf willow or Labrador tea. (*Macfarlane.*) Throughout the wooded region of northern Alaska, from the British boundary line west to the shores of Behring Sea, and from the Alaskan range of mountains north within the Arctic Circle as far as the tree limit, this species is a summer resident. (*Nelson.*) Two individuals of this species were shot among the weeds surrounding the redoubt at St. Michael. They are not common as they were the only ones ever seen at that place. (*Turner.*) Two specimens taken at Ducks were of this form. (*Streator.*) East and west of Coast Range, a summer resident. (*Fannin.*) Tolerably common during the migrations at Chilliwack. A scarce summer resident in the Cariboo district, of B.C.; both old and young birds showed typical *celata*. (*Brooks.*) Five specimens from the interior of British Columbia are distinguishable from the coast form which does not appear to cross the Coast Range. (*Rhoads.*)

Osgood took an adult male at Caribou Crossing, Lat. 60°, B.C., June 26th, 1899; I took a female and two young 20 miles below Fort Selkirk, July 27th, and a young one near Dawson, August 2nd. Osgood secured an adult and a young one at Camp Davidson, August 5th and another was seen near Fort Yukon, Alaska, August 21st; all taken were in willows or alders close to the water.

(*Bishop.*) I saw this species but once on the 25th May near our camp on the Kowak, Kotzebue Sound, Alaska, but heard it a number of times. (*Grinnell.*)

BREEDING NOTES.—On June 18th, 1900, Mr. C. E. Whittaker, found a nest of this rare warbler at Peel River, within the Arctic Circle. It was built in the grass on the ground and contained six eggs; on June 22nd, 1902, Mr. Dippie found a nest and five eggs at Banff, Rocky Mountains. (*W. Raine.*) A nest of this species was found on June 13th, 1897, on the edge of a wood in a rather damp situation. This was completely hidden by over-hanging grass and small aspen trees it was sunken in the ground and was composed of grass built with a few horse hairs. There were five eggs in it almost hatched. Another nest of the same species was found on July 1st near the edge of a large bluff, this was as much as the somewhat scanty vegetation would allow and was hidden from above by young aspens. There were four fresh eggs in the nest which were between 15 and 16 mm. long and 12 mm. wide, they were white, thickly marked about the larger end with very fine slaty-gray and somewhat large brown spots. A third nest examined after the birds had left was in almost exactly the same situation as the first. (*Norman Criddle.*)

MUSEUM SPECIMENS.

Four; three taken at Medicine Hat, Assa., in May, 1894; one at Indian Head, Assa., May 16th, 1892; all by Mr. W. Spreadborough

646a. **Lutescent Warbler.**

Helminthophila celata lutescens (RIDGW.) BREWST. 1882.

Saw one individual at Edmonton, Alta., May 5th, 1897, afterwards the species was occasionally seen so that I think a few remained to breed; breeding in numbers at Banff, Rocky Mountains, in June, 1891; shot in Eagle Pass, west of Revelstoke, B.C.; breeding in the pass, but not seen east of the Columbia in 1890; only one observed at Trail, B.C., in June, 1902; abundant in the woods at Hastings, but not so common at Agassiz, B.C., in May, 1889; a few seen at Chilliwack, B.C., in the spring of 1902; a common summer resident on Vancouver Island; first seen on April 16th, 1893, and became common in a few days, a nest was taken containing four eggs on May 13th; nest on the ground built of moss lined with dry grass and hair; quite common at Comox and Nanaimo. (*Spreadborough.*)

Five specimens taken at New Westminster and one taken at Mount Lehman on September 15th are typical of the coast form. (*Streator.*) Chiefly west of the Coast Range; a very abundant summer resident on the coast. (*Fannin.*) More common than the type; a summer resident. (*Brooks.*) A very abundant summer resident on the Pacific slope of British Columbia. (*Rhoads.*) Rather rare on Queen Charlotte Islands, seen twice at Cumshewa Inlet. Three specimens taken at Fort Kenai, Alaska, by Bischoff in May, 1869. (*Osgood.*) Common at Haines Mission, Lynn Canal, June 1st, 1899. (*Bishop.*) Extending up the Pacific coast this bird is found as a common summer resident of the wooded southeastern shore of Alaska, where it replaces *celata*. (*Nelson.*) Tolerably common about clearings, and in the low growths of firs which border the beaches at the mouths of the streams at Sitka, Alaska. (*Grinnell.*) Four specimens taken at Sheep Creek, and four on Kenai Mountains, Alaska, in August, 1901. The species was fairly common along all streams in the timber belt even to its highest limits where it breeds. (*Chapman.*)

BREEDING NOTES.—Banff, Rocky Mountains, June 10th, 1893, in the valley of the Bow River, we flushed a little warbler off its nest and five eggs. This nest was built on the ground amongst short herbage growing at the side of a fallen log. As I wished to secure the parent bird to prove the identity of the eggs we did not molest the nest. Next morning my collector brought me a female orange-crowned warbler he had caught with his hand on the nest we found the day previous, so I took my camera along and photographed the nest and the photo-engraving of this nest is to be seen in Oliver Davies' "Nests and Eggs of North American Birds," page 431. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-three; one taken at Agassiz, B.C., in May, 1889, another at Westminster Junction and another at Hastings, Burrard Inlet, in April, 1889; nine taken at Victoria, Vancouver Island, in May, 1887 and 1893; three at Edmonton, Alta., June, 1897; one at Canmore, Rocky Mountains, May 25th, 1891; three at Banff, Rocky Mountains, May, 1891, and four at Penticton, B.C. April, 1903; all by Mr. W. Spreadborough.

647. **Tennessee Warbler.**

Helminthophila peregrina (WILS.) RIDGW. 1882.

Obtained by Drexler at Fort George, James Bay, in June and July, 1860. (*Packard*.) Rather common at Stewiacke, but never seen at Halifax, N.S. (*Downs*.) A rather common summer resident at St. John, N.B. (*Chamberlain*.) A rare summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Very rare in the Restigouche valley, N.B. (*Brittain & Cox*.) Not rare at Lake Mistassini, Quebec. (*J. M. Macoun*.) The only specimen noticed was shot at Fox Bay, Anticosti, July 11th. (*Brewster*.) Not common summer resident around Quebec; taken at Beauport. (*Dionne*.) A common but transient visitant at Montreal. Mr. Kuetzing has found this species here in May, and common for a week or two in swampy places, and I have shot a few in hedgerows in the fields at Hochelaga in May. (*Wintle*.)

Rare migrant in the vicinity of Ottawa; one was shot on the bank of the Rideau, April 9th, 1882, by Mr. G. R. White; another was shot May 16th, 1888. (*Ottawa Naturalist*, Vol. V.) On May 18th, 1897, I took one of these warblers in a large alder swamp at Emsdale, Parry Sound, Ont., and saw several more in the same place on 22nd May. They continued common till the 26th, when I only saw one. (*J. H. Fleming*.) I have usually heard this bird spoken of as rare, but since I first had the pleasure of its personal acquaintance I have concluded that many observers have passed it over on account of its dull plumage, and in some cases it may have been passed as a *Regulus*, which, in coloration, it somewhat resembles. I believe the bird occurs with us regularly, at any rate in limited numbers; my note dated 22nd May, 1900, reads:—A grand morning, warm and summer-like, a great many warblers in the willows; magnolias very abundant, some of these being so particularly handsome as to give the place quite a tropical effect; I came across an unusually large number of Tennessee warblers singing, or rather chipping merrily away in the early morning sunshine, two of which I secured; there were not less than 25 of this species in one small patch of willow. (*J. Hughes-Samuels*.) Sometimes fairly common at London, Ont., in migration. (*W. E. Saunders*.)

Upon my arrival at Pembina, the beginning of June, I at once perceived that the vernal migration of the present species past

this point was about to be concluded, as female specimens preponderated; the species was not observed further west on the 49th parallel. (*Coues.*) Not an uncommon summer resident in the wooded parts of Manitoba, apparently breeding on Duck Mountain. (*Thompson-Seton.*)

This is a common migrant at Indian Head, Assa., and very likely breeds; first seen May 31st, and soon became common in willow thickets where it remained to June 15th, when all disappeared; first seen at Medicine Hat, Assa., May 18th, 1894; others were seen afterwards, but they were never numerous; a few seen on Old Wives' Creek, Assa., late in May, 1895; a common breeding species at Banff, Rocky Mountains, in the summer of 1891; common in willow thickets from the mouth of Slave River to Peace River Landing, Lat. $56^{\circ} 15'$ in June, 1903; first seen on May 22nd, 1897, at Edmonton, Alta.; tolerably common along the creeks by the 28th; no doubt they breed here; common from Edmonton to the Athabasca Pass in willow thickets in low grounds and along streams in June, 1898; common in the foothills south of Calgary. (*Spreadborough.*) Common at the Grand Rapids of the Saskatchewan, where it doubtless breeds. (*Nutting.*) One of the most abundant birds between Athabasca Landing and Lesser Slave River; first noted May 30th; common down the Athabasca River to Fort McMurray, Lat. $56^{\circ} 40'$; common up the Clearwater River and at the north end of Methye Portage; common between Methye Lake and Isle à la Crosse Lake; last seen August 10th. (*J. M. Macoun.*) One specimen only was procured at Cumberland House, on the banks of the Saskatchewan, in the latter end of May. (*Richardson.*) North to Fort Simpson on the Mackenzie River. (*Ross.*) I have a nest and four eggs of this bird collected at Fort Saskatchewan near Edmonton, Alta., on June 12th, 1899, by Mr. J. Callaghan; nest in a willow two feet from the ground. (*W. Raine.*) This was a common breeder at 158-Mile House, B.C., where its sharp insistent song was to be heard from every copse in the partially wooded district. (*Brooks.*) Found only at Caribou Crossing, Lat. 60° , B.C., where I heard four males singing and secured three of them, June 27th and 28th, 1899. They were in comparatively open willow and spruce swamps. (*Bishop.*)

BREEDING NOTES.—The birds made their first appearance on the 22nd of May at Carpenter Mountain, Cariboo, B.C., and were

common the same day. From that day I heard their song in almost every clump of trees. A great number drew off to the northward, but a good many remained. They generally frequented the clumps of aspen trees and Norway pines, where the ground was covered with a thick growth of dry fine grass. As I saw no female nor evidence of nesting I gave the birds three weeks and started out to look for their nests on the 15th of June. Luckily I soon found a female off her nest and after an hour's watching, during which time I suffered torments from the mosquitoes, she at last dropped down to her nest. On walking up she fluttered out, and flew off some distance, returning shortly with two others of the same species, when I put her off and shot her. A hundred yards further on I came across another female, probably one of the two that returned with the first one. I took up a good position and waited twenty minutes, when she darted down to the ground and disappeared, I went up and was just going to kill her with my little .38 caliber collecting pistol as she fluttered off, when out of the tail of my eye I saw the nest contained newly hatched young; I found another nest the same day by carefully quartering a likely piece of ground, and found several the next week with young also. The nests were always on the ground, sometimes at the foot of a small service-berry bush or twig. They were all arched over by the dry fine grass of the preceding year; this year's growth having just well commenced. The nest is small and loosely constructed, being quite flat; it is composed outwardly of a few leaves, a little moss and a good deal of fine grass, lined only with the latter material. The nest was situated on the ground in, and arched over with, dry grass, and no bush or twigs were near. (*J. Parker Norris, Jr., in The Auk, Vol. XIX, 88.*)

MUSEUM SPECIMENS.

Eight; two taken at Indian Head, Assa., May, 1892, two at Medicine Hat, Assa., May, 1894, two at Banff, Rocky Mountains, in June, 1891, and one at Edmonton, Alta., May 22nd, 1897, all by Mr. W. Spreadborough; one taken at Athabasca Landing, Alta., in May, 1888, by Mr. J. M. Macoun.

CCXXVII. **COMPSOTHYLPIS** CABANIS. 1850.648. **Northern Parula Warbler.**

Compsothlypis americana usneæ BREWSTER. 1896.

One specimen sent from the southern inspectorate of Greenland in 1857. (*Arct. Man.*) A rare summer resident, occurring inland on hardwood trees, Nova Scotia. (*Downs.*) Infrequently observed on Prince Edward Island, and generally in the upper branches of hardwood forest. (*Dwight.*) A rare summer resident at St. John, N.B. (*Chamberlain.*) A tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Seen near Port Hawkesbury, Cape Breton Island, and at Fox Bay, Anticosti. (*Brewster.*) Taken at Beauport; rare in the vicinity of Quebec in summer. (*Dionne.*) A common transient visitant at Montreal. Shot a male and two female specimens of this warbler in May, 1890, on the spur of Mount Royal. (*Windle.*)

A moderately common migrant in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) A specimen of this species was shot on a currant bush in a garden at Kingston, Ont., in May, 1899. (*Rev. C. J. Young.*) A common summer resident in the Parry Sound and Muskoka districts. They arrive about the middle of May, and for the first two weeks keep to the highest trees. (*J. H. Fleming.*) Not common in Algonquin Park, Ont. Nearly always seen up in the tops of trees. (*Spreadborough.*) Abundant in spring and fall at Toronto. The earliest arrivals I have noted being on 5th May, 1896. (*J. Hughes-Samuel.*) A passing migrant at Guelph, Ont. (*A. B. Klugh.*) Of four specimens taken in the Thames valley, in western Ontario, by Mr Robert Elliott and Mr. W. E. Saunders two are said to be typical of the northern form *usneæ*, the other two not being quite typical of the southern form. (*Robert Elliott*, in *The Ottawa Naturalist*, Vol. XVI., p. 95.)

BREEDING NOTES.—I have no particular data regarding nesting season, but a nest was found 40 feet up a yellow birch tree composed of a few fine rootlets and feathers worked into a growth of *Usnea* that hung below a limb three-quarters of an inch in diameter and about eight inches below the limb. (*W. H. Moore.*)

CCXXVIII. **DENDROICA** GRAY. 1842.650. **Cape May Warbler.**

Dendroica tigrina (GMEL.) BAIRD. 1858.

A specimen obtained by Drexler, May 28th, 1860, at Moose Factory, James Bay. (*Packard.*) Very rare in Nova Scotia; only one specimen taken at Stewiacke in midsummer. (*Downs.*) Rare; may breed at Grand Manan, N.B. (*Chamberlain.*) Of rare occurrence at Scotch Lake, York Co., N.B.; it is known to breed here; one nest was found containing three eggs, placed in a hemlock tree a few feet from the trunk, and about eight feet up. (*W. H. Moore.*) A scarce and transient visitant at Montreal; I shot three male specimens of this warbler and saw others on the spur of Mount Royal, one of which I shot May 14th and the other two May 21st, 1890. (*Wintle.*) This species is rare at Quebec, but two specimens were taken in June, 1884. (*Dionne.*) A rare migrant at Ottawa; have been taken by Mr. G. R. White in 1883, 85-87 and 1888. (*Ottawa Naturalist*, Vol. V.) Met with it on the Magdalen Islands in 1897; I have a nest containing two eggs taken there from a small spruce tree about two feet from the ground. (*Rev. C. J. Young.*)

Correctly described as rare in Ontario; I have previous to the present spring season of 1900, seen only two specimens of this bird, viz.: a male on 19th May, 1898, and a female on 21st May, 1899; but between the 8th and 19th May, 1900, I was fortunate in seeing five males of the species and to hear their song; I had also a chance to observe their habits during their short stay. (*J. Hughes-Samuel.*) A rare migrant at London, Ont., two or three being the most noted in a single migration. (*W. E. Saunders.*)

Common summer resident along the Red River in Manitoba; not widely distributed. (*Thompson-Seton.*) A rare species at Avenue, Manitoba. (*Norman Criddle.*) Two specimens were taken at Medicine Hat, Assa., May 17th, 1894. (*Spreadborough.*) At Long Lake, Yorktown, Assa., on June 2nd, 1891, I took a nest and four eggs of this bird; it was built nearly three feet from the ground in a willow. (*W. Raine.*)

MUSEUM SPECIMENS.

Two; one purchased with the Holman collection in 1885; the other taken at Ottawa in May, 1888, by Mr. G. R. White.

652. **Yellow Warbler.**

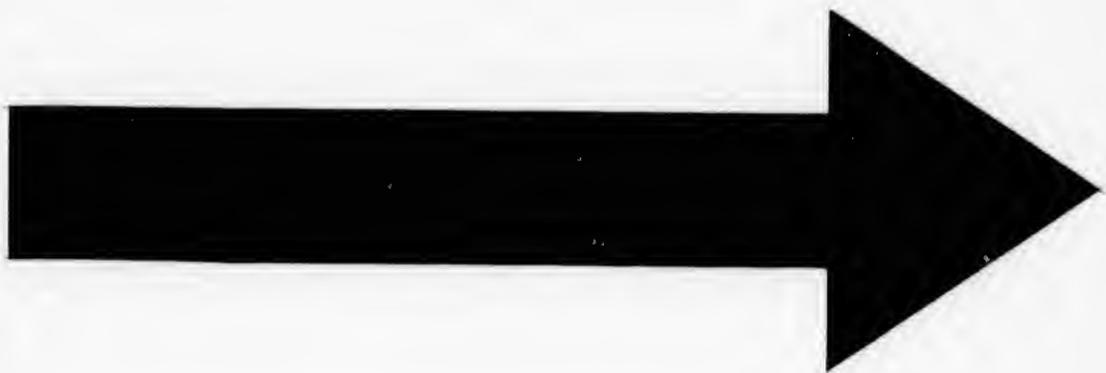
Dendroica aestiva (GMEL.) BAIRD. 1858.

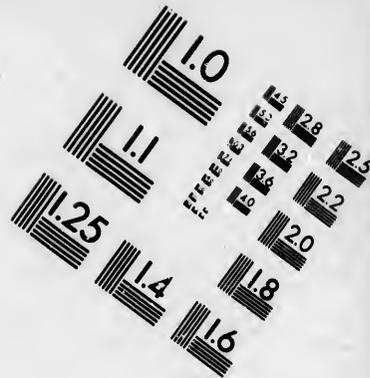
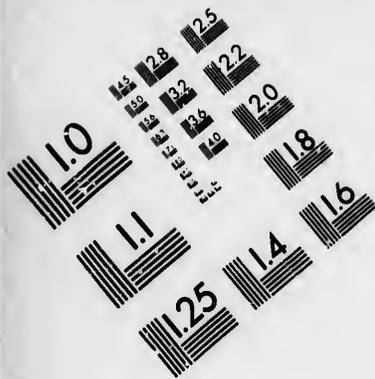
Specimens obtained by Drexler, July 12th, 1860, at Fort George, James Bay. (*Packard.*) Common from Missinabic down the Moose River and up James Bay to Richmond Gulf; a nest containing four eggs was found on an island in the bay, June 23rd, 1896; none observed on a trip across Ungava; seems to keep along the coast. (*Spreadborough.*) A very common summer migrant in Newfoundland. (*Reeks.*) Very common in gardens around Halifax, N.S. (*Downs.*) Common summer resident at Sydney, Cape Breton Island, N.S. (*C. R. Hart.*) Quite common at Baddeck and Margaree, Cape Breton Island, July, 1898; rather rare at Brackley Point, Prince Edward Island, June, 1888. (*Macoun.*) Rather common, on Prince Edward Island, and quite as likely to be found among lonely alder bushes as in the trees around houses. (*Dwight.*) An abundant summer resident at St. John, N.B. (*Chamberlain.*) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare, except near the settlements in the Restigouche valley. (*Brittain & Cox.*) Common at Lake Mistassini, Quebec. (*J. M. Macoun.*) Common summer resident on the Magdalen Islands. (*Bishop.*) Rather abundant at Fox Bay, Anticosti; a few specimens seen at Gaspé Bay, Que. (*Brewster.*) A common summer resident at Quebec. (*Dionne.*) An abundant summer resident at Montreal; breeds in the city and Mount Royal park; I have found their nests containing eggs from May 29th to July 7th, and observed this warbler here from May 7th to September 3rd. (*Wintle.*)

An abundant summer resident in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) I took a male at Emsdale, Parry Sound, Ont., on May 27th, 1899, the only one I have seen in Parry Sound; it was not uncommon at Rosseau in 1897, and Mr. Tavernier regards it as common at Beaumaris. (*J. H. Fleming.*) Without doubt more of this species of warbler remain to breed around Toronto than of any other variety. Practically, they are everywhere in suitable places, and if a youthful enthusiast wants to study bird life he has merely to seat himself near a patch of willows during the merry month of May when he will have a grand opportunity of becoming acquainted with our common summer yellow-bird; I have noted one of these birds at Toronto as early as 18th April,

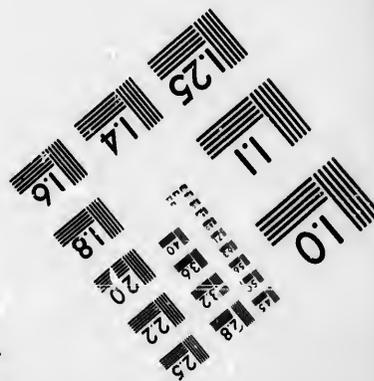
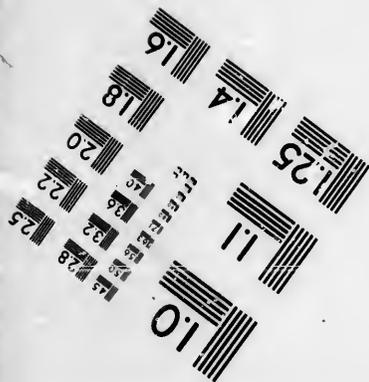
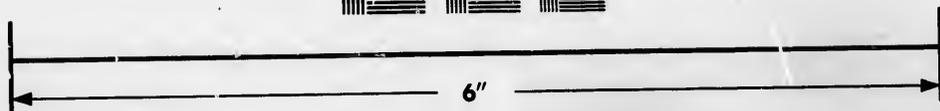
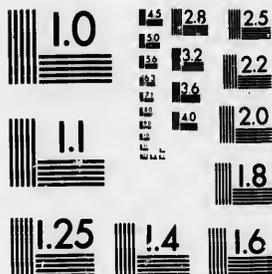
1899. (*J. Hughes-Samuel.*) Common summer resident at Guelph, Ont.; arrives about May 4th, leaves about Aug. 18th. (*A. B. Klugh.*) Abundant summer resident, breeds in gardens very frequently at Penetanguishene, Ont.; I have seen four nests of this species in a garden of less than half an acre. (*A. L. Young.*) Rather common at Norway House, Oxford House, and York Factory. Specimens taken at these three points have a slightly darker crown than is usual in eastern examples, but are referable to the typical form. (*E. A. Prebles.*) York Factory, Hudson Bay. (*Dr. R. Bell.*) Also taken at Fort Churchill, Hudson Bay. (*Clarke.*)

This abundant and universally diffused species was observed at various points along the 49th parallel from Pembina to the Rocky Mountains. (*Cones.*) A very abundant summer resident everywhere in Manitoba, breeding throughout the whole province. (*Thompson-Seton.*) Common and breeding at Avenue, Man. (*Norman Crowe.*) First seen at Indian Head, Assa., May 27th, 1892, soon after they became abundant and began to breed in great numbers; first seen at Medicine Hat, Assa., May 15th, 1894, commenced nesting by the 23rd, two nests finished by the 29th and laying commenced; common in all brushy parts of western Assiniboia, especially at Crane Lake and Cypress Hills. This is a common species wherever there is brush, and builds indiscriminately in the forks of a rose-bush or a willow or *Eleagnus*; numerous nests were taken at Wood Mountain and wherever there was brush across Assiniboia and Alberta to Waterton Lake at Chief Mountain in the summer of 1895; observed from the mouth of Lesser Slave River to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; first seen at Edmonton, Alta., May 12th, 1897, June 14th two nests were taken in small willow trees, nest very compact, composed chiefly of willow down held together with horse-hair; abundant in willow thickets throughout the trip from Edmonton west to Athabasca Pass, in June, 1898; common in the foothills south of Calgary; quite common and breeding in large numbers at Banff, Rocky Mountains, in the summer of 1891; very common at Revelstoke and Robson, on the Columbia River, in June, 1890; one nest was taken in the fork of a cottonwood, 40 feet from the ground on June 21st, 1890, containing four fresh eggs; a few were breeding at Trail, near the International Boundary, in June, 1902; occasional at Kamloops and Spence's Bridge, B.C.; a few doubtful specimens at Victoria, Vancouver Island. (*Spread-*





**IMAGE EVALUATION
TEST TARGET (MT-3)**



**Photographic
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23 WEST MAIN STREET
WEBSTER, N.Y. 14580
(716) 872-4503

1.5 28
2.0 25
2.5 22
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3.6 18

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borough.) Very abundant summer resident in thickets at Prince Albert, Sask., arriving in May. (*Coubeaux.*) Common at Grand Rapids and at Chinawawin; breeding in thickets. (*Nutting.*) Very abundant throughout the entire wooded regions of arctic America, where it builds on dwarf willows and small scrub pine at a height of a few feet from the ground. (*Macfarlane.*) This species is known throughout the Northwest Territories as far north as the woods extend, or to Lat. 58°. It reaches the banks of the Saskatchewan about the third week in May and Great Bear Lake in Lat. 65° in the beginning of June. (*Richardson.*) North to Lapierre's House on the Mackenzie River. (*Ross.*)

BREEDING NOTES.—This warbler is very common along the St. John River, near Fredericton. Have never seen them more than a mile from a river or large stream where they nest in low bushes that grow about such places. The nest is seldom over a yard from the ground, and have often seen them within a yard of the highway road. By the first week in June the majority of their eggs are laid, three and four being the number in a clutch. The nest is composed of plant fibres, dried grasses, wool and hair. (*W. H. Moore.*) Nest found in a lilac bush was composed of vegetable substance and down lined with hair and down, a very compact and neat affair. Eggs 5, grayish or greenish white dotted and blotched with reddish-brown and lilac. (*G. R. White.*) Nests in bushes, conifers and other trees around Ottawa. The nest is placed two to fifteen feet from the ground, and composed of grayish fibres of plants and vegetable down with a few bits of grass, bark or feathers. The inside is white when not lined with hairs. This warbler often adds a story to its nest to cover up a cowbird's egg laid in the original nest. (*Garneau.*) This bird builds a neat and compact nest and generally places it high up on the willows or in the forks of a small tree, rose bushes or wolf willow. It is chiefly composed of dead leaves of grasses and carices, and with a thick lining inside of small feathers, hairs and fine cottony wool gathered from the catkins of willows; numerous nests of the above character were detected in June, 1895, in southern Assiniboia by the writer.

MUSEUM SPECIMENS.

Thirty-three; six taken at Ottawa, four by the writer in 1888 and two by Dr. F. A. Saunders in May, 1891; one at Indian Head, Assa., in June, 1892, six at Medicine Hat, Assa., in May, 1894,

three at Canmore and four at Banff, Rocky Mountains, in June, 1891, four at Revelstoke in May, 1890, one at Trail, B.C., May, 1902, one at Spence's Bridge, B.C., May, 1889, two at Old Wives' Creek, Assa., May, 1895, two at Edmonton, Alta., May, 1897; all by Mr. W. Spreadborough. Two taken at Victoria, Vancouver Island, in May, 1893, are of the eastern form.

Four sets of eggs; one of three eggs taken at Medicine Hat, Assa., June 2nd, 1894, by Prof. Macoun; one set at Edmonton, Alta., June 14th, 1897, by Mr. W. Spreadborough; one at Aylmer, Que., of four eggs, June 9th, 1898, by Mr. F. K. Whiteaves; one set of three and one cowbird's egg taken at Billing's Bridge, near Ottawa, May 31st, 1897, by Prof. Macoun; nest in a black currant bush in a swamp.

652b. **Alaskan Yellow Warbler.**

Dendroica aestiva rubiginosa (PALL.) OBERHOLSER, 1897.

West of Coast Range an abundant summer resident. (*Fannin*.) Common summer resident at Chilliwack, B.C. (*Brooks*.) Rather rare on Queen Charlotte Islands; seen twice in Cumshewa Inlet. (*Osgood*.) One specimen taken at Deer Park, on the Columbia River, in June, 1890, belongs to this form; quite common at Agassiz, B.C., in May, 1889; common at Chilliwack, B.C., in spring of 1901; none observed in the autumn; a summer resident on Vancouver Island; first seen near Victoria on April 25th, 1893, they were common in a day or two; nesting in willow and alder thickets at Victoria, Comox and Nanaimo. (*Spreadborough*.)

Alaska in general, both along the coast and throughout the interior; and southwest to Vancouver Island, migrating southward in winter to California. (*Ridgway*.) This is perhaps the most abundant warbler in Alaska. It is found everywhere in the wooded interior. (*Nelson*.) Specimens of this species were obtained from several localities. It is common at many points on the Yukon River. (*Turner*.) A single adult male taken June 23rd at Sitka, Alaska; and a few others heard previously in the dense firs along Indian River were all noted on this occasion. Yellow warblers, mostly in immature plumage were observed commonly in the Kowak valley, Kotzebue Sound, Alaska, in the latter part of August. (*Grinnell*.) I am positive I have often heard the song of this species at Bennett, June 17th-22nd. I took an

adult male at Caribou Crossing June 27th, and heard the song at Lake Marsh. An adult female was taken by Osgood near the Nordenskiöld River July 22nd and family parties were often found in the alders and willow thickets between the Pelly River and Circle City, in the Yukon valley. (*Bishop.*) Three immature males were taken at Kenai Mountains, Sheep Creek, and Homer, Alaska; found occasionally at the upper edge of timber line on Kenai Mountains. (*Chapman.*)

MUSEUM SPECIMENS.

Twelve; four taken at Agassiz, B.C., in May, 1889, four at Chilliwack, B.C., in May, 1901, two at Deer Park, Columbia River, June 12th, 1890, and two at Victoria, Vancouver Island, in May, 1893; all by Mr. W. Spieadborough.

654. **Black-throated Blue Warbler.**

Dendroica caerulescens (GMEL.) BAIRD. 1865.

Audubon, Vol. II., p. 63, states he found a dead one in Labrador. (*Packard.*) An uncommon summer resident at Halifax, N. S. (*Downs.*) Seen in woods at Margaree, Cape Breton Island, July, 1898. (*Macoun.*) A few were detected at Souris, Prince Edward Island. (*Dwight.*) A rare summer resident at St. John, N.B. (*Chamberlain.*) Tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Taken at Beauport; rather uncommon in Quebec. (*Dionne.*) A common and transient visitant at Montreal. A few probably breed at Montreal. I have seen them from May 4th to October 5th. (*Wintle.*)

A moderately common migrant in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) I have occasionally noticed this bird in spring and fall in the county of Leeds, Ont. Once I found the nest in June, 1899, in an ash swamp. It was built in a bush of *Spiræa* that grew among ferns and weeds, and was not more than three feet from the ground. The bird was very tame and easily identified. The nest much resembled the nest of the redstart except for location. (*Rev. C. J. Young.*) An abundant summer resident in the Parry Sound and Muskoka districts of Ontario. I took a nest on June 8th, 1894. It was on the side of a hill in a dense hardwood bush, and was placed on the fallen branch of a dead hemlock, shaded by the horizontal branch of a seedling

maple. (*J. H. Fleming.*) Common amongst balsam fir in Algonquin Park, Ont., June, 1900. (*Spreadborough.*) Reaching us in the first week in May at Toronto this bird becomes very abundant. The female of this species occasions probably as much trouble with the novice as regards identification as any of our birds, flycatchers excepted; but the white spot at the base of the primaries is indisputable evidence and when not clearly apparent always shows when the feathers are parted. Found young just from the nest at Havelock, Ont., July, 1894. (*J. Hughes-Samuel.*) Rare summer resident in Middlesex Co., Ont., but more common in North Bruce. Fairly common at London, Ont., as a migrant. (*W. E. Saunders.*) Mostly a passing migrant at Guelph, Ont. A few pairs breed. Arrives about May 12th, leaves about Sept. 26th. (*A. B. Klugh.*) Summer resident at Penetanquishene, Ont. (*A. F. Young.*)

BREEDING NOTES.—This species is common during the spring migrations and a goodly number stay during the summer. The female displays great courage and feigns helplessness and distress, to the utmost degree, when one is near her nest. A nest found July 21st contained three nearly fresh eggs. It was placed two feet up in a small beech bush, well built into the fork of small limbs and was composed of rotten wood fibres, cocoon silk, and scantily lined with white horse hair. (*W. H. Moore.*) A nest with young birds was found on the 4th August, 1902, in a wood near Lake Nominique, about 100 miles north of Ottawa. It was built in a raspberry bush and made of grass and a few leaves, lined with hairlike roots; nest 3 x 2 and 2 x 1.25. (*Garneau.*) On the afternoon of June 5, 1886, when out in a tract of low, thick underwood, about a mile to the west of Wildwood, I found a nest with one egg, which at first I took to be one of a chestnut-sided warbler, so much did it resemble the nest of that species in form, size, materials of composition and situation. The egg also had a much similar appearance, but the different notes of the female owner of this nest soon attracted my attention, and I waited, a short time till she came out of the thick foliage where she was concealed and approached the more open space where I was standing, then I saw that she was quite a different species, and a more close examination of the nest showed that it was a more compactly formed structure than is usually made by the chestnut-sided bird, though the eggs of both species are much similar.

The scolding notes of this bird soon brought her mate upon the scene, but he seemed more disposed to sport with her than assist to drive off the intruder. Both birds, however, came quite close, and I identified them as a pair of the black-throated blue warbler species. Being anxious to secure this nest and a full set of eggs, I noted the place and returned four days after. Then the female was seated on the nest, and when she flushed off I found that it contained three of her own eggs and one of a cowbird. These I collected and prepared for my cabinet, but they have since passed to the collection of a gentleman in Philadelphia. After I had secured the nest and eggs above described, on my homeward way, I found another nest of the same species. This was also placed in the fork of a small maple twig, about two feet off the ground, and on the outskirts of a thick patch of low underwood, and then contained three young of the bird's own two or three days old, and also a young of the cowbird. I noted in both cases that the old birds on leaving the nests dropped to the ground and made quite a commotion among the dry leaves, evidently with the intention of diverting attention from the nests. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Five; two taken at Ottawa in May, 1888, by the writer; two by Dr. F. A. Saunders at Ottawa in May, 1890; and one in Algonquin Park, Ont., May 28th, 1900, by Mr. W. Spreadborough.

655. Myrtle Warbler.

Dendroica coronata (LINN.) GRAY. 1842.

Three examples taken in Greenland prior to 1860. (*Arct. Man.*) A single example, an adult male, was taken in Godhavn Harbour, Greenland, July 31st, 1878. (*Kumelin.*) Audubon, Vol. II., p. 24, found them plentiful in Labrador, with young scarcely able to fly. Drexler obtained specimens July 21st, 1860, at Moose Factory. (*Packard.*) Rather common on the southern half of the coast of Labrador. (*Bigelow.*) A common summer migrant in Newfoundland. (*Reeks.*) The commonest warbler in the vicinity of Halifax, N.S. (*Downs.*) Common summer resident at Sydney, Cape Breton Island, N.S. (*C. R. Harte.*) An abundant species at Baddeck and Margaree, Cape Breton Island, July, 1898; in spruce trees along Brackley Point and Prince Edward Island,

June 29th, 1888. (*Macoun.*) Common on Prince Edward Island. Their favorite haunts were clumps of spruces and firs in partly cleared lands. (*Dwight.*) An abundant summer resident at St. John, N.B. (*Chamberlain.*) Quite common in the Restigouche valley, N.B. (*Brittain & Cox.*) Common spring migrant, but is rather rare in summer. Breeds at Scotch Lake, York Co., N.B. (*W. H. Moore.*) A common resident on the Magdalen Islands. (*Bishop.*) Common migrant at Quebec A few may breed. (*Dionne.*) An abundant transient visitant at Montreal, observed here from May 3rd to 19th, and from October 8th to 10th. (*Wintle.*)

An abundant migrant and possibly breeds. Has been seen all through the summer and probably breeds in the Mer Bleue. (*Ottawa Naturalist*, Vol. V.) Common in central Ontario during migration. A nest I found at Calabogie Lake was built in a cedar, near the top, about 10 feet from the ground, and contained four fresh eggs on May 29th; it was composed of twigs, roots, etc., lined with hair inside. (*Rev. C. J. Young.*) Fairly common in the spring in Parry Sound and Muskoka districts, Ont. (*J. H. Fleming.*) Rather common in summer in Algonquin Park, Ont. Saw a pair building in the top of a hemlock tree near C ache Lake. They failed to complete it and moved to another tree as they were seen there all summer. (*Spreadborough.*) Probably the first warbler to reach us in the spring and last to leave us in the fall. I found young birds just out of the nest on a small island in Belmont Lake, near Havelock, Peterborough Co., Ont., June 28th, 1895. (*J. Hughes-Samuel.*) A migrant only, in Middlesex Co., but has been observed in several localities in North Bruce in the month of June. (*W. E. Saunders.*) Usually abundant during migrations at Guelph, Ont., but almost entirely absent in the spring of 1903. Seen from about April 30th to May 12th and from September 6th to 8th. (*A. B. Klugh.*)

One was seen in company with kinglets and chickadees in the spruce woods bordering Hill River, September 2nd, 1901. (*E. A. Prebles.*) Not observed on the 49th parallel until about the middle of September, when during the fall migration it made its appearance in abundance along the Mouse (Souris) River in company with the snowbirds and other species just come from the north. (*Coues.*) An abundant migrant; a few breed in Manitoba, at

the Duck Mountains where I shot a male on June 10th, 1884. (*Thompson-Seton.*) First seen at Avenue, Manitoba, April 20th, 1903, became common by May 14th, 1903, last seen October 10th. (*Norman Criddle.*) This bird arrives on the banks of the Saskatchewan at Prince Albert in May and breeds in thickets. (*Coubeaux.*) Abundant at Grand Rapids and Chemawawin; breeding in the latter place. (*Nutting.*) I have the nest and four eggs with the parent bird that were collected at Red River, Alberta, June 14th, 1898, by Mr. W. Wenman. (*W. Raine.*) This is a common migrant at Indian Head, Assa., it was first seen on April 25th, and the last ones disappeared on June 2nd, 1892; first seen on April 30th, 1894, at Medicine Hat, Assa. Those shot were all males. By May 11th they were very abundant in willow thickets, but were all gone by the 18th; observed two at the upper crossing of the Lob-stick River, Alta., June 17th, 1898, where they were breeding; seen in large flocks at the Henry House, September 2nd; a spring migrant at Banff, Rocky Mountains in 1897; arrived at Revelstoke, B.C., April 24th, 1890, but soon disappeared; a few seen at Trail near the International Boundary in 1902, but all soon disappeared. (*Spreadborough.*)

This bird arrives on the banks of the Saskatchewan about the middle of May and continues there all summer, frequenting willow thickets and the borders of streams and lakes, where *Myrica Gale* grows in abundance. (*Richardson.*) North to Lapierre's House, on the Mackenzie River. (*Ross.*) This warbler is not numerous on the Anderson River, where some thirteen nests were found built on low spruce trees and a few on the ground. It lays from four to five eggs. (*Macfarlane.*)

BREEDING NOTES.—This bird occasionally breeds in central and northern Ontario, and commonly north of the Ottawa River. It is recorded as doing so at Listowell, Ont., by Mr. Wm. L. Kells. In the early spring and again in the fall when on migration it is one of the commonest of the warblers; the first nest I found was in the spring of 1889, on 29th May, on the bank of Calabogie Lake, Renfrew Co.; it was built near the top of a cedar against the stem, about eight or nine feet from the ground and close to the water, and on that date contained four fresh eggs; I easily identified the bird by its white throat and other characteristic markings; though I often saw the bird in the interval I did not again meet with its nest until June 11th, 1902, when I found a nest in a second growth

of white pine on an island in Gull Lake, Frontenac Co., Ont.; at this date it contained three young birds, recently hatched; on the 16th June I found another nest on an island in Sharbot Lake; it was just like the first one I found close to the water and about seven feet from the ground; the nest is large for the bird, built of dead twigs of spruce and hemlock with some fibrous roots, and lined with grass, feathers, rootlets, &c., the feathers in each nest being a special feature; outside it somewhat resembles the nest of the purple finch. (*Rev. C. J. Young.*)

The first warbler to arrive in spring at Scotch Lake, N.B., coming about the first of May and staying mostly about young growth woods or bushy pastures; they are fairly common during migration, and some seasons stay to breed; one nest was placed six feet up in a tamarac bush and contained four eggs. (*W. H. Moore.*) Nests found around Ottawa in May and June, saddled on the middle of a branch six feet from the ground in a large fir tree or at the summit of a small cedar tree ten feet high; they are made of twigs and rootlets covered with spider webs or a little plant down and lined with feathers and hairs; in some the feathers hide the eggs, in others the hairs are over the feathers; nest 4 x 2 and 2 x 1.50. (*Garneau.*) On the 18th June, 1882, I discovered, for the first time in my experience, a nest of the myrtle warbler; it was in a low, black ash timbered swamp, where there was an intermingling of othersoft woods and conifers, near where I had found a bay-breasted warbler the year before, and of whose nest I was again in search, when I espied in a low balsam, about four feet from the ground, a nest with the mother bird seated upon it; at first sight this avifaunian cradle, in situation, material and construction, appeared like that of a chipping sparrow, but when the bird flushed off on my near approach, and from a position on a branch near by watched my movements, shifting uneasily and uttering a few "chip"-like notes, I carefully noted her plumage and became certain of her identity as a female myrtle warbler. This nest contained four eggs, quite fresh though the bird had begun to incubate; the nest itself was composed of stalks of dried weeds, fibres of bark, rootlets and hair from the tails of horses and cattle; the next summer I saw another complete nest of this bird, it contained no eggs; this was placed in the top of a small bushy blue-beech five or six feet high, and situated in a swampy piece of bush land. (*W. L. Kells.*) A very abundant species last spring (1903); the 17th May last

I discovered a nest, most certainly a warbler's, which resembled those of the yellow warbler, built in the forked branches of a small maple about seven feet from the ground; this was in a hardwood thicket; there was but one egg in it, white with small dark spots; I did not disturb either the nest or egg as I was desirous of seeing who the owners were; I watched for some time but saw only a myrtle warbler and she did not seem to be over anxious to claim the dainty little nest and its contents so I left it intending to call soon again but did not get a chance until a week later when to my sorrow I found only the nest, which, however, seemed as sound as ever, but its contents were gone; so I am unable to prove it a myrtle warbler's nest, but from the actions of the birds about it when I first saw it I believe it belonged to this species. (*A. F. Young.*)

MUSEUM SPECIMENS.

Seventeen; two taken at Ottawa by the writer in May, 1888, and five by Dr. F. A. Saunders in May, 1891; one in Algonquin Park, Ont., in May, 1900; two at Indian Head, Assa., in April, 1892; five at Medicine Hat, Assa., in April and May, 1894; one at Banff, Rocky Mountains in May, 1891; and one at Revelstoke, B.C., in April, 1890, all by Mr. W. Spreadborough.

Two sets of eggs; one taken at Hull, Que., of four eggs, one of which was a cowbird's, June 10th, 1897, by Mr. F. K. Whiteaves; one at Wolfville, N.S., of four eggs, May 21st, 1895, by Mr. H. F. Tufts; nest placed near the base of a small limb, on a small spruce tree 20 feet from the ground.

655a. Hoover's Warbler.

Dendroica coronata hooveri MCGREGOR. 1899.

Western United States, breeding probably in British Columbia and Alaska. (*Allen in The Auk*, Vol. XVI., p. 343.) First seen at Victoria, B.C., April 26th, 1893, and two following days when they appeared in large numbers flying about in the poplar trees; they left in a few days; they were seen up to May 13th at Cedar Hill, near Victoria, in 1887; common at Huntington on the International Boundary, in the Fraser River valley, in September, 1902. (*Spreadborough.*) British Columbia. (*Lord.*) Not common and found only near the coast; a few individuals were found on Van-

couver Island, associating with *Auduboni*. (*Streator*.) An abundant summer resident. (*Fannin*.) Tolerably common migrant at Chilliwack, B.C. (*Brooks*.) Found associating with *Auduboni* on Vancouver Island; not seen east of the Coast Range. (*Rhoads*.) This species is the hardiest of American warblers. In Alaska it breeds to the northern tree limit, considerably within the Arctic Circle. (*Nelson*.) My specimens of this species were obtained at Fort Yukon where they breed. I observed this species at Nushagak, Bristol Bay, in June 1878, where it was quite abundant among the willow thickets along the river. (*Turner*.) We found Hoover's warblers at Skagway, Glacier, Log Cabin and Haine's Mission, on the Lynn Canal and White Pass; also Bennett, Caribou Crossing, Lake Tagish, Miles Cañon, White River, Sixty-mile Creek, and 12 miles above Circle City, in the Yukon valley. (*Bishop*.) A single adult male was taken June 23rd, 1897, and a few others heard previously in the dense firs along Indian River, Sitka. (*Grinnell*.)

BREEDING NOTES.—Hoover's warblers were numerous summer residents of the timber tracts throughout the Kowak valley from the delta eastward; in the latter part of August scattering companies were frequenting the spruce, birch and cottonwoods, among the foliage of which they were constantly searching, with oft-repeated "chits," just as are their habits in winter in California; the last observed, a straggling flock of six or eight, was seen in a patch of tall willows about sunset of August 30th; the following spring the arrival of Hoover's warblers was on May 22nd; they were already in pairs and the males were in full song; at this season they were confined exclusively to the heavier spruce woods; in the Kowak delta, on the 23rd of June, a set of five considerably incubated eggs was secured; the nest was in a small spruce in a tract of larger growth, and only four feet above the ground; it is a rather loose structure of fine, dry grass-blades, lined with ptarmigan feathers; the color of the eggs is an extremely pale creamy tint, almost white, with wreaths about the big ends of large lavender blotches, and smaller spots of drab, overlaid by a few Vandyke brown. (*J. Grinnell*.)

MUSEUM SPECIMENS.

Seven; two taken at Huntington, B.C., in October, 1901, and five at Victoria, Vancouver Island, in April, 1893, all by Mr. W. Spreadborough.

656. Audubon's Warbler.

Dendroica auduboni (TOWNS.) BAIRD. 1858.

This warbler was only observed in the Rocky Mountains beyond the eastern foothills of which it is not known to extend. (*Coues.*) Observed a pair near Calgary June 22nd, 1897, in the foothills from there to Crow's Nest Pass in July and August; observed a few in the valley of the McLennan, B.C. in July, 1898; common at Banff, Rocky Mountains, in the summer of 1891, building their nests in tall spruce trees; quite plentiful at Revelstoke, B.C., on the Columbia River, and down that stream to Deer Park and Robson in June, 1890; young full grown by June 24th; arrived at Revelstoke on April 12th, 1890; common and breeding at Trail, on the International Boundary, in June, 1902; first seen April 13th, 1903, at Penticton, B.C., after this date they became common; rather rare at Spence's Bridge, B.C., in May, 1889, but common at Hastings and Agassiz, in the Fraser valley; only one individual seen at Chilliwack in May, 1902, but were common at Huntington, on the International Boundary, in September, 1902; common around Victoria early in May, 1893, but the bulk of them had left by the 10th, only a few remained to breed; during the latter part of April and first half of May this bird is common in most parts of Vancouver Island, but later they are very scarce. (*Spreadborough.*) British Columbia. (*Lord.*) Abundant spring and fall migrant. I think a few breed in the coast region; it is very common on Vancouver Island. (*Streator.*) Very abundant summer resident all over the province. (*Fannin.*) A common summer resident at Chilliwack; a few remain until January. Tolerably common breeder at 158-Mile House, B.C. (*Brooks.*) Abundant summer resident everywhere in British Columbia. (*Rhoads.*) Found nesting at Donald, Agassiz and Vancouver, B.C. in 1894. (*E. F. G. White.*)

BREEDING NOTES.—At Banff, in the Rocky Mountains, on June 14th, 1893, I found a nest containing four eggs of this species. It was built in a willow about five feet above the water on the shore of Vermilion Lake. Mr. Dippie found its nest at Devil's Lake, 14 miles from Banff, June 22nd, 1902. (*W. Raine.*)

MUSEUM SPECIMENS.

Twenty-eight; four taken at Banff, Rocky Mountains, in May and June, 1891; four at Revelstoke, B.C., in April and May, 1890;

one at Deer Park, Columbia River, B.C., June, 1890; two at Trail, B.C., May, 1902; five at Penticton, B.C., April, 1903; one at Agassiz, B.C., May, 1889; one at Chilliwack, B.C., June, 1901; six at Huntington, B.C., in October, 1902, and four at Victoria, Vancouver Island, in June, 1893, all by Mr. W. Spreadborough.

657. **Magnolia Warbler.**

Dendroica maculosa (GMEL.) BAIRD. 1858.

Taken in South Greenland near Godthaab, 1875. (*Winge.*) Audubon, Vol. II., p. 66, reports it common, with eggs and nest in the beginning of July, 1833; Drexler obtained a specimen at Moose Factory, May 28th, 1860. (*Packard.*) Common at Moose Factory, James Bay, June, 1896; none observed elsewhere. (*Spreadborough.*) Tolerably common in Newfoundland in summer. (*Reeks.*) An abundant summer resident in Nova Scotia. (*Downs.*) A common summer resident at Sydney, Cape Breton Island, N.S. (*C. R. Harte.*) In woods at Baddeck and Margaree, Cape Breton Island, July, 1898; on trees at Brackley Point, Prince Edward Island, July 20th, 1888. (*Macoun.*) This is a characteristic warbler of the region and is abundantly represented on Prince Edward Island. (*Dwight.*) An abundant summer resident at St. John, N.B. (*Chamberlain.*) Quite common in the Restigouche valley, N.B. (*Brittain & Cox.*) An abundant summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare at the Magdalen, a male taken on Grindstone Island. (*Bishop.*) At both Fox and Ellis bays, Anticosti, this species was most abundant; it is also a common bird at Port Hawksbury, at Gaspé and along the north shore of the St. Lawrence. (*Brewster.*) Rather common in woods at Lake Mistassini, Que. (*J. M. Macoun.*) A common summer resident around Quebec; taken at Charlesbourg. (*Dionne.*) A common but transient visitant at Montreal; observed here from May 18th to 24th, but not met with in the autumn. (*Wintle.*) Noted on Sable Island, May 31st, June 20th and October 8th 1902. (*James Bontevillier.*)

A moderately common migrant. A few may breed; found at the Mer Bleue, 3rd July, 1890, by Mr. W. E. Saunders. (*Ottawa Naturalist*, Vol. V.) Common in eastern Ontario during migration, rarely breeding; one nest I found contained four fresh eggs on July 1st, 1895; it was built in a bush of *Spiræa* among small

pinces and hemlocks near Otly Lake, Lanark Co., Ont. This bird is a common breeding species near Mingan, Que. I saw a nest with four eggs taken there in June, 1899; the nest was built in a small spruce tree. (*Rev. C. J. Young.*) An abundant summer resident in Parry Sound and Muskoka districts, Ont. (*J. H. Fleming.*) Not rare as a summer resident in Algonquin Park, Ont. (*Spreadborough.*) Abundant in spring and fall at Toronto, and as they reach us before the end of August fall migration it is reasonable to conclude that some at least do not go far to breed. (*J. Hughes-Samuel.*) A common migrant, but a rare summer resident in Middlesex Co., Ont.; abundant in parts of north Bruce in June. (*W. E. Saunders.*) Passing migrant; seen about May 10th at Guelph, Ont., and again from about August 28th up till September 28th. (*A. B. Klugh.*) One or two seen at Norway House, Keewatin, and one taken at Oxford House. (*E. A. Prebles.*)

One specimen of this species was taken in Wood Mountains by Dr. G. M. Dawson and seen in his collection. (*Coues.*) A migrant in Manitoba and apparently common near Winnipeg but may breed in the northern part of the province. (*Thompson-Seton.*) A tolerably common spring and autumn migrant at Avenue, Manitoba; arrives about the middle of May. (*Norman Criddle.*) A few specimens seen at Wood Mountain, Assa., where they were doubtless breeding, on June 12th, 1895; a specimen was shot at Revelstoke, B.C. in July, 1890, no others were seen; only two individuals observed at Edmonton, Alta., on May 22nd and 25th, 1897. (*Spreadborough.*) Abundant at Chemawawin on the Saskatchewan. (*Nutting.*) A number of specimens seen at Lesser Slave River, Atha. (*J. M. Macoun.*) This is a common bird on the banks of the Saskatchewan; it is usually to be found in the thickets of young spruce trees and willows, flitting near the ground from one branch to another. (*Richardson.*) North to Fort Simpson on the Mackenzie River; rather rare. (*Ross.*) Taken at Vernon, Lake Okanagan, B.C., in 1898, by Mr. Brooks. (*Fannin.*) A specimen taken at Field in the Rocky Mountains, and two or three observed at Vernon, B.C. (*Rhoads.*) Several seen at Quesnel, B.C., during the fall migration. (*Brooks.*)

BREEDING NOTES.—This species occasionally breeds in central Ontario, probably more often than the myrtle warbler. I found a nest in a small hemlock, May 30th, 1902, which grew on a wooded bank under large hemlock trees on a point of Sharbot

Lake. The nest was ill-concealed, about four feet from the ground, and the bird left it when I approached. At a short distance it resembled a chipping sparrow's, but was composed outwardly of fine hemlock twigs, neatly woven, and was lined with hair and fibres. There were four fresh eggs which were boldly marked, rather than spotted, with blotches of a dark brick-red on a creamy ground. I saw the bird leave the nest three times and identified it by the yellow markings and black on side of head. (*Rev. C. J. Young.*) This pretty little warbler arrives at Scotch Lake from the 10th to 15th May and within a week of the first arrival is common. They frequent young spruce trees in pastures and partly cleared land. They nest in June, building near the ground in small spruces and generally on the outer end of a small limb. They lay four eggs, and the period of incubation is ten or eleven days, and the young stay in the nest about two weeks. (*W. H. Moore.*) A few pairs breed at Ottawa while a great number go more to the north at Lake Nominigue. It nests in bushes of all kinds from one to four feet from the ground. The nests consists of small twigs, fine grass and rootlets, lined with hair or hair-like roots. (*Garneau.*)

MUSEUM SPECIMENS.

Eight; two taken at Ottawa in May, 1888, by the writer; one purchased with the Holman collection in 1885; two taken in Algonquin Park, Ont., June, 1900, one taken at Revelstoke, B.C., July 23rd, 1890, and two at Edmonton, Alta., in May, 1897, by Mr. W. Spreadborough.

Two sets of eggs; one set of four eggs taken at Gaspereaux, N.S., June 10th, 1901; nest in a small spruce bush four feet from the ground, composed of fine twigs, grasses, etc., and lined with horse hair; another set of four eggs taken at Wolfville, N.S., June 5th, 1898, both by Mr. H. F. Tufts.

658. **Cerulean Warbler.**

Dendroica rara (WILS.) RIDGWAY. 1897.

Occurs at Toronto regularly, but is apparently rare. (*J. H. Fleming.*) Common in the southwestern part of Ontario, but rare near London and not extending much further north. A number of nests have been taken, varying from 25 to 60 feet above the ground and all saddled on fairly large limbs from $\frac{3}{8}$ to 2 inches

13½

in diameter. The nests are quite shallow, but are constructed similarly to those of the redstart. Eggs four. In former years the birds were much more common in the vicinity of London, Ont. (*W. E. Saunders.*) Nest and eggs taken at Drummondville, near Niagara Falls, Ont. (See *Ridgway, Hist. N. Am. Birds*, I., 1874, p. 235.) A regular summer resident in southern Ontario, but local. One spring I searched for it carefully near Hamilton without seeing a single individual, while across the bay, four miles off, Mr. Dickson reported it quite common and breeding in the woods near the Waterdown station of the Grand Trunk Railway. (*McIlwraith.*)

BREEDING NOTES.—I have two nests with sets of eggs of this species collected by Mr. Edward Reinecke, of Buffalo, N.Y. One nest containing four eggs was found on Navy Island, in the Niagara River. The nest was placed on the limb of an elm, near the top about 50 feet from the ground and very hard to get at. (*W. Rainc.*)

MUSEUM SPECIMEN.

One purchased with the Holman collection in 1885.

659. Chestnut-sided Warbler.

Dendroica pensylvanica (LINN.) BAIRD. 1858.

Accidental in South Greenland in 1887. (*Winge.*) Tolerably common throughout the summer in Newfoundland. (*Reeks.*) An abundant summer resident at Halifax, N.S. (*Downs.*) A rare summer resident at St. John, N.B. (*Chamberlain.*) Tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Common summer resident at Montreal; breeds in Mount Royal park; nests with eggs found from June 5th to 24th; observed here from May 11th to August 18th. (*Wintle.*) A scarce migrant and possible resident in summer at Quebec. (*Dionne.*)

A common summer resident in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) Not uncommon about Lansdowne, Leeds Co., Ont.; I found a nest with four eggs, built in a small elm three feet from the ground, June 3rd, 1896 and plainly identified the bird. (*Rev. C. J. Young.*) An abundant summer resident in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Observed several in low bushes along the Parry Sound Railway on dry ground and in burnt woods where the second growth is low, in Algonquin

Park, Ont., in June and July, 1900. (*Spreadborough*.) Not as common as formerly in summer though it still breeds in fair numbers around London, Ont. (*W. E. Saunders*.) Common as a migrant, breeding in varying numbers every year at Guelph, Ont.; arrives about May 8th and leaves about August 18th. (*A. B. Klugh*.) One specimen only of this distinctive species was secured at Pembina—perhaps its western if not its northern limit. (*Coues*.) A common summer resident in the wooded parts of Manitoba. Its choice of locality usually causes it to be found chiefly in half-open woods, especially along the edges of low, marshy places. It frequents the tops of the highest trees. (*Thompson-Seton*.) Tolerably common at Avenue, Manitoba, where it very likely breeds. (*Norman Criddle*.)

BREEDING NOTES.—Found a nest in Beechwood cemetery near Ottawa, which was built in an upright crotch about six feet from the ground. The nest was a loosely woven mass of dried weeds and fibrous substances lined with fine grass and horse-hair. Eggs, 4, white with reddish brown markings. (*G. R. White*.) Nests around Ottawa in June and also at Lake Nominigue, 100 miles north of Ottawa, in raspberry bushes and low shrubs; the nests are made with grasses and strips of bark lined with vegetable fibres and finer strips of bark; nest 3 x 2 and 2 x 1.25. (*Garneau*.) On May 22nd of the past year (1900) not far distant from each other, I noted two newly formed nests of this bird; the first seen was deep in the underwood, and placed in the fork of a small bushy maple about twenty inches off the ground; this was so bulky and compactly built that at first I took it to be a nest of an indigo bird; it was formed of a kind of woody fibre gleaned from decayed timber, vines and grasses, and lined with long, black horse-hair, which it must have taken the builder a good deal of time, with much trouble, to collect and place in position; on the above date this nest contained an egg of the cow-bird, which I removed and—five days after—it contained three eggs of the chestnut-sided warbler, and on these the female was incubating, and as the usual set of eggs of this species numbers four, it was evident that the cow-bird had removed one of the warbler's when she deposited her own; this tramp among birds, is one of the worst enemies with which the whole family of the warblers has to contend, as many of their nests are found to contain one or more of the cow-bird's eggs; and there is danger that the progeny

may destroy the whole brood in the nest of the species in which it is cradled; on one occasion I found a nest of the chestnut-sided warbler which contained four cow-bird's eggs, and but one of the warbler's own; the eggs of this species are of a whitish hue, with a very irregular wreath, or belt, of a brownish colour, around the larger end, and some dottings, sometimes of a blackish hue, on the middle surface; the smaller end is unmarked; the other nest of this species, noted on the same date, was near the edge of the wood, and placed between several stalks of raspberry vines about two feet off the ground, and composed of materials much similar to the other, with the exception of the horse-hair lining, and was not so bulky in size—this on the 30th of May, contained four eggs; a week after, two other nests of this species were noted, both deeper in the wood, and both placed in the forks of little maples, but at varying elevations from the ground, one being about four feet, this contained four eggs, the other which contained three eggs, was about two feet off the ground, and by the side of a pathway. In both cases these were evidently advanced in incubation, and were not molested; I concluded that in this tract of forest about a dozen pairs of this species were breeding, but they have many enemies among other birds and small animals. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Five; one purchased with the Holman collection in 1885; three taken by the writer in May, 1888, at Ottawa; one taken at Ottawa by Dr. F. A. Saunders, May 23rd, 1890.

Two sets of eggs; one of four taken at Berlin, Ont., June 2nd, 1899, by Mr. W. Raine, and another near Toronto, Ont., on June 7th, 1891, by the same gentleman.

660. Bay-breasted Warbler.

Dendroica castanea (WILS.) BAIRD. 1858.

Drexler obtained a specimen at Moose Factory, June 2nd, 1860; three individuals were seen at Black Island, Hamilton Inlet by myself June 9th, 1882; two specimens were shot but lost. (*Packard.*) Tolerably common summer resident in Newfoundland. (*Reeks.*) An uncommon summer resident at Halifax, N.S.; more common inland. (*Downs.*) One seen at Baddeck, Cape Breton Island, June 4th, 1890. (*F. H. Allen.*) An occasional summer

resident at St. John, N.B. (*Chamberlain*.) A pair seen in woods near Black River, Prince Edward Island, July 18th, 1888. (*Macoun*.) A scarce transient visitant at Montreal. I have shot specimens on the spur of Mount Royal as late as May 28th, 1892, but have not met this species after that date. Mr. Kuetzing says this species breeds on Montreal Island as he has seen them on the eastern part of the island in July. (*Windle*.) Seldom met with around Quebec in summer; taken at Beauport. (*Dionne*.) A rare, irregular spring migrant in May and June. A pair was observed gathering nest material, June 15th, 1902, at Scotch Lake, N.B. (*W. H. Moore*.)

A moderately common migrant around Ottawa. (*Ottawa Naturalist*, Vol. V.) An uncommon warbler in eastern Ontario. I saw one specimen in the grass at Lansdowne, Leeds Co., Ont. A few breed on the Magdalen Islands. I obtained a nest with four eggs taken there in June, 1898, ten feet from the ground, in a spruce tree. The eggs are fully as large as those of the black-poll warbler, but are differently marked. (*Rev. C. J. Young*.) Not abundant in the Parry Sound and Muskoka districts. I have met with it only during migration. (*J. H. Fleming*.) Though usually by no means abundant I think no spring season passes without a fair number visiting this locality. If they pass this way in the fall in any numbers I think they do so in company with *D. striata* which they at this season much resemble, and so are not noted. Occasionally in May they are unusually abundant—my note for 19th May, 1888, reading: "Heavy thunder storm about 3 a.m. and another at 6 a.m. Morning much milder than of late, atmosphere very hazy. Vast influx of migrants, many of which had no doubt been kept back by the cold nights the past week. Bay-breasts were astonishingly numerous, and in fact, though it may seem strange, although many of the common warblers were here in full force, *D. castanea* was certainly the most numerous—so much so in fact that at one time I counted no less than twelve feeding on the ground at one time, and in the space of a few feet. The insects had been beaten down by the previous night's storm. I also saw several of these birds taking a dainty little bath in a puddle of water in company with many birds of widely divergent habits. (*J. Hughes-Samuels*.) Passing migrant at Guelph, Ont. Abundant this fall (1903). Seen about May 15th and again about August 27th. (*A. B. Klugh*.)

A rare summer resident in Manitoba. Only mentioned by a few observers. (*Thompson-Seton*.) A rare summer resident at Avenue, Manitoba, arrived May 18th, 1903, and last seen August 21st. (*Norman Criddle*.) A rare summer migrant at Indian Head, Assa. Only one individual seen in the spring of 1892, on June 8th. Only one individual was seen at Medicine Hat, Assa., in the spring of 1894. (*Spreadborough*.) I found the nest of this species north of Waterloo, Ont., May 22nd, 1899; nest in a hemlock five feet from the ground. (*W. Raine*.) One was taken at Oxford House, Keewatin, July 3rd, 1901. (*E. A. Prebles*.)

BREEDING NOTES.—Here the first nest that claimed my attention was one placed on the side of a small birch tree where a tuft of twigs grew out from the ground. I soon reached and secured this; it contained three fresh eggs; these were of a white hue with dottings and patches of a brownish or flesh colour, the nest itself being composed of fragments of bark, rootlets and hair; I did not then note the owner, nor could I at that time have identified the species, but I gave them a name and placed them in my collection. Two years after—June, 1879—I was out in a piece of swampy woods south of the town, when my attention was arrested by the actions of a small bird which was constructing a nest among some leafy twigs growing on the small horizontal branch of a little water-elm, about three feet out from the trunk and ten feet off the ground. Some days after I viewed this nest again, it then contained one egg, and three days more when I revisited it, I found the bird at home sitting on three eggs, which I inferred were the full set, and that incubation had begun. When this bird flew off her nest and took a position on a branch near-by, uttering a few chip-like notes, I identified her as a female bay-breasted warbler. The nest and eggs were exactly like those above described, and of course both belonged to the same species. Some days after this I found another nest of this bird in a neighbouring *lowland* wood; this was placed in the top of a small hemlock about fourteen feet from the ground, constructed of similar materials, and contained four eggs. Since then no nest of this species with eggs has come under my observation, but I have noted a few others in which young had apparently been raised. One of these was on the side of a small cedar where a little branch grew out, and about four feet off the ground; another, evidently a new nest, but after the breeding season when I found

it, was placed among some leafy twigs on the side of a pretty large birch tree, five or six feet from the ground. This with a set of the first eggs of the species that I took are still in my collection, and a notable feature about the nest of this find is, that the beginning and outside of the nest is ornamented with pieces of birch bark, and usually also with insect cocoons. It much resembles the nest of a chipping sparrow, but there is less hair in the inside, and the foundation is less bulky. Inside, it is about two inches across, by one and a half deep. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Five; one purchased with the Holman collection in 1885; two taken at Brandon, Man., June, 1880, by the writer; one taken at Indian Head, Assa., June 8th, 1892, and another at Medicine Hat, Assa., May 19th, 1894, by Mr. W. Spreadborough.

661. **Black-poll Warbler.**

Dendroica striata (FORST.) BAIRD. 1858.

One specimen sent from Godthaab, Greenland in 1853. (*Arct. Man.*) Abundant throughout the wooded portion of Labrador. Breeds plentifully at Fort Chimo, where seven nests and eggs were obtained in 1884 by Turner. (*Packard.*) Observed one at Fort George, June 20th, 1896, and two more between the fort and Richmond Gulf; common all across Ungava from Richmond Gulf to Fort Chimo; I believe the last of them left the country for the south about August 23rd, 1896, as on that day I saw the last one near Fort Chimo. (*Spreadborough.*) A very abundant and characteristic bird, of northeastern Labrador; as far north as the limit of timber near Cape Aillik. (*Bigelow.*) Apparently not uncommon in summer in Newfoundland. (*Reeks.*) Seen in large numbers on the Humber River, Newfoundland, August 27th, 1899. (*Louis H. Porter.*) A not uncommon summer resident at Halifax, N.S. (*Downs.*) Appeared in numbers on Sable Island, N.S. May 21st, 1902. This was after a gale. (*James Bouteillier.*) Not common at Baddeck, Cape Breton Island. (*F. H. Allen.*) Common during the spring and autumn migrations. Rare in summer at St. John, N.B. (*Chamberlain.*) A rare spring migrant at Scotch Lake, York Co., N.B. (*H. H. Moore.*) A very abundant bird on the Magdalen Islands; breeding everywhere. (*Bishop.*) Decidedly the most numerous of the warblers on the Magdalen

Islands, and fairly common at Anticosti as well as along the north shore of the St. Lawrence. (*Brewster.*) Not rare at Lake Mistassini, Que. (*J. M. Macoun.*) A rare migrant in spring at Quebec. (*Dionne.*) I consider this species an irregular spring migrant, and have not met with them here in the autumn. (*Windle.*)

A moderately common migrant in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) I have seldom seen this bird in eastern Ontario. I found this to be the commonest warbler by far in Magdalen Islands in June, 1897; I found four nests all built in bushy spruce trees at from two to five feet from the ground; they are late birds to arrive there and do not commence to build until the middle of June; I noticed that the eggs were almost all blotched with dark amber brown as well as spotted and speckled like the last species. (*Rev. C. J. Young.*) The black-polls seem very local here, as, though I have found them decidedly abundant during the last two years in a particularly nice little patch of tall willows near the lake shore, I do not know of any one else having noted a single specimen. May 15th is the earliest date on which I have seen them—three males appearing then, and increasing in numbers till 26th May, when the first females were seen; by 2nd of June all had passed on; my earliest fall note is 27th August, and from this date on the numbers daily increase till the trees are almost alive with their weak call-notes. While with us in the spring the males keep up their somewhat insect-like notes at intervals during the whole day, as they glide from branch to branch—not dashing and darting about with the vim that is so characteristic of many members of this family. (*J. Hughes-Samuel.*) A passing migrant at Guelph, Ont.; not common. (*A. B. Klugh.*) Taken at Fort Churchill, Hudson Bay. (*Clarke.*) At Oxford House, June 30th to July 4th they were rather common; on July 10th we noticed a pair in a thicket that bordered Hayes River, a few miles above York Factory, and on arriving at that post we again found the birds rather common; at Fort Churchill, where they were also common we took another specimen, July 24th, 1901. (*E. A. Prebles.*)

One specimen of this species was procured at Wood Mountain on the 49th parallel by Dr. G. M. Dawson, Geologist of the English Commission. (*Coues.*) A rare migrant in Manitoba; probably breeding. (*Thompson-Seton.*) A tolerably common spring visitant, possibly breeds at Avenue, Manitoba. (*Norman Criddle.*) This is

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a common spring migrant at Indian Head, Assa., two individuals were seen May 9th, 1892; towards the end of the month they became common, but all disappeared by June 5th; first saw one male May 10th, 1894, at Medicine Hat, Assa.; quite common by the 16th, all disappeared by the end of May; some may breed, as they acted as if they would; a few individuals seen at Old Wives' Creek, Assa., late in May, 1895; one individual seen at the upper crossing of Lob-stick Creek, northwest of Edmonton, June, 1898; a common breeding species at Banff, Rocky Mountains in the summer of 1891; observed a pair at Bragg's Creek about 40 miles southwest of Calgary, June 28th, 1897. (*Spreadborough.*) One specimen secured at the Grand Rapids of the Saskatchewan. (*Nutting.*) Two or three individuals seen on the Athabasca River near Lesser Slave River. (*J. M. Macoun.*) Our specimen of this bird was killed by an Indian in the neighbourhood of Cumberland House, in the latter end of May. (*Richardson.*) North to Lapierre's House, on the Mackenzie River; common. (*Ross.*) More plentiful than *D. coronata*, although only 21 nests were secured. (*Macfarlane.*) They were all similarly situated, and contained four or five eggs, and two or three of them were on the ground. I shot a black-poll warbler in the first plumage at Quesnel, B.C., but was unable to find it in the thick brush; I am very well acquainted with the species and am positive of its identity. (*Brooks.*) Although this species has its breeding grounds in the wooded interior it occurs along the sea-coast of Norton Sound during the spring migration. (*Nelson.*) This species was obtained only at Fort Yukon on September 18th, 1875, and also in 1877; it is not common at any time in that locality. (*Turner.*) At Log Cabin in the White Pass on June 15th, 1899, this species was common; on July 5th took a male at Lake Marsh and two specimens were taken at Caribou Crossing, B.C. (*Bishop.*) One specimen taken at Fort Kenai, Cook's Inlet, Alaska, by Bischoff. (*Osgood.*) Found breeding in the Kowak valley, Kotzebue Sound, Alaska, in 1899. (*Grinnell.*) An adult female was taken on Sheep Creek on the Kenai Peninsula, Alaska; besides being noted at several other points and no doubt breeds there. (*Chapman.*)

MUSEUM SPECIMENS.

Fifteen; one taken at Ottawa by the writer in May, 1888, and two others by Dr. F. A. Saunders in May, 1890; one taken at

Hamilton, Ont. by Mr. McIlwraith in May, 1888; two taken at Indian Head, Assa. in May, 1892; one at Old Wives' Creek, Assa., May 21st, 1895; six at Medicine Hat, Assa., in May, 1894, and two at Banff, Rocky Mountains on June 22nd, 1891, all by Mr. W. Spreadborough.

Three sets of three eggs; two taken at Fort Chimo, Labrador in 1896 by Mr. G. Boucher; one taken on the upper Hamilton River, Labrador in 1894, by Mr. A. P. Low.

662. Blackburnian Warbler.

Dendroica blackburniæ (Gmel.) Baird. 1858.

A young specimen taken in Greenland at Frederickshaab, October 16th, 1845, is referred here. (*Arct. Man.*) Audubon, Vol. II., p. 48, saw several in Labrador. (*Packard.*) A very rare summer resident inland in Nova Scotia. (*Downs.*) Rare at Baddeck, Cape Breton Island, July, 1898. (*Macoun.*) An occasional summer resident at St. John, N.B. (*Chamberlain.*) A tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Not very common summer resident at Quebec; taken at Charlesbourg. (*Dionne.*) A common transient visitant at Montreal. Observed here from May 10th to 24th, but not met with in the autumn. (*Wintle.*)

A common migrant at Ottawa. A male in full plumage was seen in Dow's swamp, June 24th, 1890, by Dr. F. A. Saunders. (*Ottawa Naturalist*, Vol. V.) Commonly seen as a migrant in Leeds Co., Ont., in the month of May. I never saw a nest or resident birds. (*Rev. C. J. Young.*) A common summer resident in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Observed several in thick woods in Algonquin Park, Ont. They keep to the tops of the trees. I have never seen them near the ground. (*Spreadborough.*) This beautifully attired warbler is just plentiful enough at Toronto for all who desire to make their acquaintance annually to do so with but little trouble. Their favourite resort is among the hemlocks and similar growths. Usually reaching us about 10th May and I have seen a few as early as 3rd of May. In the year 1900 I saw several on 21st August. (*J. Hughes-Samuel.*) A rare summer resident, but a fairly common migrant at London, Ont. (*W. E. Saunders.*) A passing migrant, fairly common at Guelph, Ont. Seen about May 8th and again about August 28th. (*A. B. Klugh.*)

A rare summer visitor in the western part of Manitoba, but more common in the eastern part where it doubtless breeds. I noticed it only once at Carberry. (*Thompson-Seton.*) A rare spring migrant at Avenue, Manitoba. (*Norman Criddle.*) This species is recorded by Murray from Severn House and Trout Lake, Keewatin under the name *Sylvicola parus*. (*E. A. Prebles.*)

MUSEUM SPECIMENS.

Four; one taken by the writer at Ottawa in May, 1888, another by Dr. F. A. Saunders May 27th, 1891; one taken at Toronto in 1886 by Mr. S. Herring; one in Algonquin Park, Ont., May 29th, 1900, by Mr. W. Spreadborough.

665. **Black-throated Gray Warbler.**

Dendroica nigrescens (TOWNS.) BAIRD. 1858.

This species was taken at Agassiz and at Hastings, in the Fraser valley in May, 1889. Four individuals were shot at Huntington on the International Boundary in September, 1902. These were the only ones seen. (*Spreadborough.*) British Columbia. (*Lord.*) Found on the coast only; not common. (*Streater.*) Not common; I have only noticed it on the coast. (*Fannin.*) Tolerably common summer resident at Chilliwack. (*Brooks.*) On Vancouver Island the peculiar song of *nigrescens* was occasionally detected but no birds secured. I feel quite sure that I saw a pair in the mountains back of Clinton, B.C. (*Rhoads.*)

MUSEUM SPECIMENS.

Four; one taken at Hastings, Burrard Inlet, in April, 1889, three at Huntington, B.C., September 23rd, 1901, by Mr. W. Spreadborough.

667. **Black-throated Green Warbler.**

Dendroica virens (GMEL.) BAIRD. 1858.

One specimen sent from Julienshaab in 1853. (*Arct. Man.*) A tolerably common summer resident in Newfoundland. (*Reeks.*) Common summer resident in pine and spruce woods at Halifax, N.S. (*Downs.*) Several seen May 25th, at Sydney, Cape Breton Island, N.S. (*C. R. Harte.*) Quite common in spruce trees at Brackley Point, Prince Edward Island; breeding June, 1888;

common at Baddeck and Margaree, Cape Breton Island, July, 1898. (*Macoun.*) Abundant at every place visited on Prince Edward Island where the forest was of considerable size. (*Dwight.*) A common summer migrant in the vicinity of St. John, N.B. (*Chamberlain.*) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare on the Magdalen Islands; one pair seen on Grindstone Island. (*Bishop.*) Rare in the Restigouche valley, N.B. (*Brittain & Cox.*) Met with only about Port Hawksbury, Cape Breton Island, and at Fox and Ellis bays, Anticosti. (*Brewster.*) A rather common summer resident at Quebec; taken at Charlesbourg. (*Dionne.*) A common spring migrant, but a scarce summer resident at Montreal. Observed here about May 7th and leave about October 10th. (*Wintle.*)

A moderately common migrant in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) A few of these birds are to be met with in eastern Ontario in the breeding season; I met with a nest once in the month of July, 1898; this was on Deer Island, one of the Thousand Islands; it was built in a pine tree about 25 feet from the ground and at the time contained young birds. (*Rev. C. J. Young.*) A common summer resident in Parry Sound and Muskoka districts. Mr. Kay refers to it as only just becoming common at Port Sydney, Muskoka in 1890. (*J. H. Fleming.*) Not very common in summer in Algonquin Park, Ont. in 1900; only a few observed in the tree tops in thick woods. (*Spreadborough.*) Abundant summer resident around Toronto. (*J. Hughes-Samuel.*) A rather common summer resident in the deeper cedar swamps around London; abundant as a migrant; a common breeding bird in North Bruce. (*W. E. Saunders.*) Fairly common summer resident at Guelph, Ont., and abundant during migrations. This year (1903) it has been as common a breeder as the yellow and black-and-white warblers and by far our most abundant migrant; arrives about May 1st and leaves about September 30th. (*A. B. Klugh.*)

One specimen taken at Medicine Hat, Assa., May 17th, 1894; the only one seen; first seen at Edmonton, Alta., May 15th, 1897; common in spruce woods by May 22nd; breeding in the woods; one pair seen at Peace River Landing in Lat. 56° 15' in June, 1903. (*Spreadborough.*) This species was seen at Avenue, Manitoba, on May 13th and 17th, 1898. (*Norman Criddle.*)

MUSEUM SPECIMENS.

Twelve; one purchased with the Holman collection in 1885; two taken at Ottawa by the writer in May, 1888, also two others by Dr. F. A. Saunders in May, 1890; one taken at Toronto, Ont., by Mr. S. Herring; two at London, Ont., by Mr. W. E. Saunders; one taken in Algonquin Park, Ont., May 29th, 1900, one at Medicine Hat, Assa., on May 18th, 1894 and two at Edmonton, Alta., May, 1897, all by Mr. W. Spreadborough.

Two sets of eggs; one set of four eggs taken at Wolfville, N.S., June 17th, 1896, by Mr. H. F. Tufts; nest in a small fir tree four feet from the ground, composed of fine twigs and grasses lined with hair; another of four eggs taken at Halifax, N.S., June 15th, 1890, by Col. James T. Egan.

668. **Townsend's Warbler.**

Dendroica townsendi (TOWNS.) BAIRD. 1858.

A few individuals seen at Revelstoke, B.C., in May, 1890, and a male shot on the 23rd. One taken at Huntington, on the International Boundary, in September, 1902, the only one seen; first seen on Vancouver Island, April 19th, 1893; shortly after they began to nest in the Douglas firs near Victoria. A common summer resident on the island. (*Spreadborough.*) British Columbia. (*Lord.*) A single specimen was collected at Mount Lehman in September. (*Streator.*) East and west of Coast Range; not common. (*Fannin.*) Migratory at Chilliwack; scarce. (*Brooks.*) Abundant on Vancouver Island, but rare east of the Coast Range. (*Rhoads.*) One specimen seen at English Bay near Vancouver, B.C., August 8th, 1894. (*E. F. G. White.*) One taken at Cumshewa Inlet, Queen Charlotte Islands, June 15th and five others at Skidegate, July 14th; Mr. Keen found it at Massett and noted its spring arrival from 1891 to 1898. (*Osgood.*) A single adult female taken at Sitka, Alaska, August 14th, and two others seen at the same time. (*Grinnell.*) Hartlaub states that this species was once seen by Dr. Krause on May 27th, in conifers of upper Dejah valley, Alaska, which is probably the most northern point from which it has yet been recorded. (*Nelson.*) Osgood took a male at Skagway, May 31st. It was tolerably common at Glacier in the dense woods of spruce and fir, and unquestionably nesting. Altogether we noted about twenty individuals during our stay. Osgood took an adult

at the southern end of Lake Marsh, north of Lat. 60°, in the Yukon district, July 1st, and I an adult female and a young female on the west shore of Lake Labarge, July 14th. This is a new species to the Yukon valley. (*Bishop.*) Two specimens taken respectively in Kenai Mountains, Alaska, August 14th, and at Sheep Creek, August 17th, considerably extend the range of this species to the westward. (*Chapman.*)

MUSEUM SPECIMENS.

Fourteen; one taken at Revelstoke, B.C., May 23rd, 1890; two at Huntington, B.C., in June, 1901; eleven at Victoria, Vancouver Island, April and May, 1893, all by Mr. W. Spreadborough.

669. **Hermit Warbler.**

Dendroica occidentalis (TOWNS.) BAIRD. 1858.

A summer resident, chiefly west of the Coast Range in British Columbia. (*Fannin.*) We have no other record of this species and yet we have looked for it every season.

670. **Kirtland's Warbler.**

Dendroica kirtlandi BAIRD. 1858.

This is said to be the only warbler occurring in North America of which the nest and eggs are unknown; and prior to the past spring (1900) the appearance of this bird in Canada has not been recorded as far as I have been able to ascertain. My notes are as follows: "16th May, 1900, 5.30 a.m., morning dull; east wind, warblers, &c., plentiful. After a while I was attracted to the centre of a cluster of tall willow trees by notes—strong, clear and with quite a musical ring—and as the song, short but remarkably pretty was quite new to me I approached carefully under cover of a tree trunk and found myself within a few feet of my new acquaintance, for such it proved to be. While watching the bird with my field glass I noticed a tendency to jerk his tail slightly, and not like the ostentatious jerk of a water thrush, but more after the nervous manner I have seen adopted in fall by *Wilsonia pusilla*. As soon as the bird observed me he darted into another tree, hiding behind a branch, but, curiously enough, still singing. I approached under cover and on taking the bird found I had been fortunate enough to secure a specimen of *D. kirtlandi* in good plumage. On stepping the distance from the tree where

I was standing to the tree on which the bird was singing when I first heard him I found it to be 110 yards which goes to show the power of his voice. (*J. Hughes-Samuel.*)

671. **Pine Warbler.**

Dendroica vigorsii (AUD.) STEJN. 1885.

Several seen on June 20th, September 27th, 1902, on Sable Island, N.S. (*James Bouteillier.*) Said to occur in New Brunswick by Dr. Adams. (*Chamberlain.*) Specimens have been taken in Quebec prior to 1889. (*Dionne.*) A scarce transient visitant at Montreal. I have shot specimens of this warbler on the spur of Mount Royal from September 12th to 26th. (*Wintle.*)

A rare spring migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) One taken by Mr. Tavernier on April 30th, 1898, is the only record I have for either the Parry Sound or Muskoka district. (*J. H. Fleming.*) I found these birds quite abundant among the pines west of Toronto in 1894, the first arrivals were noted on the 21st April; on the 8th May, 1895, I took one specimen and on 20th April, 1896, met another single bird; since these dates I have not met with the species, either on account of none having visited this district or more likely because the haunts in question have been denuded of the trees. (*J. Hughes-Samuel.*) Rather rare both as a migrant and summer resident, though it may be found each year in a few pine woods around London, Ont. (*W. E. Saunders.*) A tolerably common summer resident to the north and east of Manitoba. (*Thompson-Seton.*) A tolerably common summer resident at Avenue, Manitoba; it arrives about May 15th and leaves about September 2nd. (*Norman Criddle.*)

MUSEUM SPECIMENS.

Six; four taken at Ottawa by Dr. F. A. Saunders in September, 1891; one taken at Revelstoke B.C., in May, 1890, by Mr. W. Spreadborough; one purchased with the Holman collection in 1885.

672. **Palm Warbler.**

Dendroica palmarum (GMEL.) BAIRD. 1858.

This species was found common and breeding in the Mer Bleue, July 3rd, 1890, by Messrs. W. E. and F. A. Saunders and several of the young were shot; it was again seen there August 9th of the

same year. (*Ottawa Naturalist*, Vol. V.) Often [found in places where one would not usually look for warblers; the palm warbler reaches us at Toronto early in May in fair numbers, and sometimes in the fall it is certainly abundant, as was the case during the last week in September, 1899. (*J. Hughes-Samuel*.) Occurs regularly at Toronto but is sometimes rare. (*J. H. Fleming*.) Usually rare in the migrations, but sometimes quite common around London, Ont.; not known to breed in this district. (*W. E. Saunders*.)

A fairly common spring and autumn migrant at Avenue, Man.; first seen about May 10th and last seen Oct. 6th, 1903. (*Norman Criddle*.) An abundant migrant in eastern Manitoba; apparently all go north to breed. (*Thompson-Seton*.) Taken at Fort Churchill, Hudson Bay. (*Clarke*.) One was seen on a small willow-covered island in Hill River, September 4th, 1901. (*E. A. Prebles*.) A single specimen of this species was shot on the swampy banks of the Saskatchewan at Cumberland House, in a shady thicket of willows, alders and ash-leaved maples. (*Richardson*.) North to Fort Resolution on Great Slave Lake; rare. (*Ross*.)

672a. Yellow Palm Warbler.

Dendroica palmarum hypochrysea RIDGW. 1876.

A specimen was obtained by Drexler at Moose Factory in July, 1860; Audubon, Vol. II., p. 55, found them plentiful in Labrador; young seen in August. (*Packard*.) One of the earliest spring migrants and tolerably common in Newfoundland. (*Rec'ts*.) Seen in large flocks on the Humber River, Newfoundland, 1899. (*Louis H. Porter*.) - One of the earliest arrivals in Halifax, N.S.; not very common. (*Downs*.) A common summer resident at Sydney, Cape Breton Island. (*C. R. Hart*.) A few observed at Baddeck, Cape Breton Island, in June, 1890. (*F. H. Allen*.) An incubating female taken at Tignish, Prince Edward Island is the only evidence I have of this bird's occurrence there. (*Duight*.) The first spring warbler at St. John, N.B.; breeds abundantly. (*Chamberlain*.) Spring migrant at Scotch Lake, York Co., N.B. (*W. H. Moore*.) A rare spring migrant at Quebec. (*Dionne*.) A rare transient visitant at Montreal; I shot a male specimen of this species May 7th, 1891, on the spur of Mount Royal, this is the only example of this warbler that I have met with in this district. (*Wintle*.)

A rare migrant at Ottawa; latest record May 6th and 8th, 1888. (*Ottawa Naturalist*, Vol. V.) I noticed this bird to be very common in bushy places and waste ground on Wolfe Island near Kingston, Ont., near the end of April and beginning of May, 1900. They were migrating but for a few days were quite tame, alighting a good deal on the ground at the base of small bushes. (*Rev. C. J. Young.*)

673. **Prairie Warbler.**

Dendroica discolor (VIEILL.) BAIRD. 1858.

The only note I have of this bird reads:—"11th May, 1900. Very cold morning and I did not see more than a dozen common warblers from 5 to 7 a.m. As I was coming home I saw a small but active little warbler which was quite new to me and I followed it for a considerable distance as it passed quickly from tree to tree. Ultimately I took it and was pleased to find that I had a specimen of the prairie warbler, the first recorded appearance of this bird in Ontario. (*J. Hughes-Samuel.*) On May 11th, 1900, while on a collecting expedition near Toronto, Ont., I took a male prairie warbler in full plumage. (*J. H. Ames* in *The Auk*, Vol. XVIII., p. 106.)

CCXXIX. **SEIURUS** SWAINSON. 1827.

674. **Oven Bird, Golden-crowned Thrush.**

Seiurus aurocapillus (LINN.) SWAINS. 1827.

A skin taken at Nanortalik, Greenland, in May, 1882, is in the museum at Copenhagen. (*Winge.*) Stearns, p. 116, records this species as breeding in southern Labrador. (*Packard.*) Very abundant along the Moose River; seemed to prefer the hillsides of the river valley that have a heavy growth of birch and poplar; none observed as far north as Moose Factory in 1896. (*Spreadborough.*) Locally common as far north as Aillik in north-eastern Labrador. (*Bigelow.*) A summer migrant in Newfoundland, but not common. (*Reeks.*) A common summer resident at Halifax, N.S. (*Dovens.*) A few observed at Baddeck, Cape Breton Island, in June, 1890. (*F. H. Allen.*) A common summer resident at Sydney, Cape Breton Island. (*C. R. Harte.*) One was noted at Tignish, Prince Edward Island, and a number

at Souris in the hardwood timber. (*Dwight*.) A common summer resident at St. John, N.B. (*Chamberlain*.) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Tolerably common in the Restigouche valley, N.B. (*Brittain & Cox*.) Rather common on Grindstone Island, Magdalen Islands. (*Bishop*.) A single pair was observed at Ellis Bay, Anticosti, July 24th. (*Brewster*.) With us this bird is a common summer resident around Quebec. (*Dionne*.) A common summer resident at Montreal. Breeds in Mount Royal park. Nests with eggs found June 5th and 13th and young fledged, June 21st. Observed here May 8th to September 15th. (*Wintle*.)

A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A very common species in eastern Ontario throughout the summer and heard in almost every large wood, especially where beech trees grow. It makes its domed nest on the ground among the leaves. One I found 29th May, 1896, contained six eggs. (*Rev. C. J. Young*.) One of the most abundant summer residents in Parry Sound and Muskoka districts. Breeds on the ground, usually in the open hardwood bush. (*J. H. Fleming*.) Everywhere common in hardwood bush in Algonquin Park, Ont. June and July, 1900. (*Spreadborough*.) Abundant around Toronto. Breeds in many places near the city. (*J. Hughes-Samuel*.) Abundant resident in all suitable localities around London, Ont. (*W. E. Saunders*.) Common summer resident at Guelph, Ont. Arrives about May 6th and leaves about Sept. 22nd. (*A. B. Klugh*.) A specimen was taken at Moose Factory, James Bay, in the summer of 1881 by Walter Haydon. (*E. A. Prebles*.)

A common summer resident at Avenue, Manitoba. It arrives on an average of eight years on May 15th, and leaves about the middle of September. (*Norman Criddle*.) A common summer resident of woodlands throughout Manitoba. (*Thompson-Seton*.) Only one specimen seen at Medicine Hat, Assa., May 17th, 1894; none at Indian Head in 1891; abundant from the mouth of Lesser Slave River to Peace River Landing, Lat. 56° 15', in June, 1903; common from Edmonton to the crossing of the McLeod River, in June, 1898; first seen May 14th, 1897, at Edmonton, Alta., by the 22nd they were common in poplar timber on the hillsides along the rivers and streams. Nests finished but no eggs by June 3rd. (*Spreadborough*.) Not rare between Athabasca Landing and Lesser Slave River; first noted May 30th; a few

seen at Fort McMurray, Lat. $56^{\circ} 40'$. A few individuals at the north end of Methye portage. (*J. M. Macoun.*) This very pretty bird breeds on the banks of the Saskatchewan, and perhaps in still higher latitudes. One was killed at Cumberland House, June 1st, 1827. (*Richardson.*) From Fort Yukon, some distance down the river, this bird is known to breed. Dall tells us that it is common in that region, and on May 30th secured a single specimen above Nulato; its nesting range extends within the Arctic Circle on the upper Yukon. (*Nelson.*) Osgood took a male at Skagway, Alaska, May 31st, 1899. At Glacier it was tolerably common in the dense woods of spruce and fir and unquestionably nesting; altogether we noticed about twenty individuals during our stay. Osgood took an adult at the southern end of Lake Marsh, July 1st and I an adult female and a young female on the west shore of Lake Labarge, July 14th. This is a new species to the Yukon valley. (*Bishop.*) Accidental on Vancouver Island at Esquimault. (*Ridgway.*)

BREEDING NOTES.—On the 14th June as I was passing with a team of horses attached to a wagon, along a road-way through the above mentioned wood, my companion directed my attention to the action of a small bird that was seen to flush almost from under the horses' feet, and by her manner of running along the ground, indicated that she had been disturbed off her nest. A little search discovered her home which contained three young just hatched out; this was a nest of an oven bird, otherwise known as the accenator, or golden-crowned thrush, it was partly sunk in the virgin mould, amid dry leaves and some wild-flower stalks, and under a small branch, and composed of dry leaves and decayed vegetable stalks, and being covered over like a small hut, or oven, was so well concealed that the passer-by even in searching for it, could fail in most cases to notice it, and this site was only a few inches from where the horses and cattle had walked with heavy steps, and where the wheels of the wagon had sunk deep in the soft earth; it contained three young just hatched; and the mother bird in leaving it acted more like a mouse than a creature with wings. (*W. L. Kells.*) A nest with four eggs found on July 1st, 1903, near Ottawa; it was under a bed of dead leaves, roofed over but with a side entrance and had the form of an oven; the materials used were leaves and grass; it was six inches long, six inches wide and four inches high; the entrance was three

inches wide and one and a half inches high. (*Garneau.*) Breeds at Rice Lake and fairly common at Carleton Junction, Ont.; Mr. Kells has found it nesting at Listowel in northern Ontario. (*W. Raine.*) The four eggs of this bird are laid about the first part of June in a dome-shaped nest of grasses and leaves placed on the ground in woods of mixed growth. (*W. H. Moore.*) Nests in woods, thickets and swamps at Guelph, Ont.; nest domed, varying much in composition; most nests are composed of dried grass, leaves, twigs and plant stems, lined with leaves and a little hair, the dome being composed of fine wiry grass; some nests are composed almost entirely of pine needles; eggs mostly five in number, pinky-white, very variable as to markings, but usually spotted and blotched, mostly in the form of a wreath on the larger end, with dark reddish brown, light brown and pale lavender. (*A. B. Klugh.*) Nest found near Hemlock Lake, Ottawa, built on the ground, composed of dead leaves, moss and grass lined with fine grass and rootlets, eggs four, white, profusely speckled with reddish brown and lilac. (*G. R. White.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection in 1885; one taken at Ottawa by the writer on May 5th, 1888, and another by Dr. F. A. Saunders on June 1st, 1891; one taken at Edmonton, Alta., May 22nd, 1897, by Mr. W. Spreadborough.

One set of five eggs taken at Ottawa and presented to the museum.

675. **Water Thrush.**

Seiurus noveboracensis (GMEL.) BONAP. 1838.

Locally common on the Labrador coast as far north as Aillik. (*Bigelow.*) Several individuals, young of the year among them, were procured by me at Davis Inlet in August, 1884; a specimen was procured at Moose Factory, May 26th, 1860 by Drexler. (*Packard.*) Very abundant all the way down Moose River to Moose Factory; also common at Fort George on James Bay, Lat. 54°; rare farther north; one specimen was taken on a river a short distance inland from Richmond Gulf. Another individual was seen on the Koaksoak above Fort Chimo, August 14th, 1896; always found on low wet ground. (*Spreadborough.*) Abundant along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*)

Rather common summer resident at Halifax, N.S.; occurs also at Kentville and Grand Lake. (*Downs.*) A pair seen at Sydney, Cape Breton Island, N.S. in 1901. (*C. R. Harte.*) Observed at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898. (*Macoun.*) A few individuals were met with at Tignish, Prince Edward Island only. It is invariably found along brooks or in their near vicinity. (*Dwight.*) A summer resident but not a common bird at St. John, N.B. (*Chamberlain.*) A tolerably common summer resident at Scotch Lake, York Co., N.B., breeding in June. (*W. H. Moore.*) Met with frequently in the Restigouche valley, N.B. (*Brittain & Cox.*) Common and breeding at Lake Mistassini, Que. (*J. M. Macoun.*) A scarce summer resident around Montreal; it has been taken at Hochelaga and seen at St. Lambert, but no nests have been taken, though it evidently breeds on the island of Montreal. (*Wintle.*) Not uncommon around Quebec, taken at Beauport. (*Dionne.*)

A moderately common summer resident in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) I have noticed this bird both in the counties of Lanark and Leeds, Ont.; in the latter it breeds among the Thousand Islands of the St. Lawrence, as I found a nest as late as July, 1894. (*Rev. C. J. Young.*) A pair taken by Mr. Kay, at Port Sydney, Muskoka, Ont., on May 24th, 1889, is the only record I have for the district. (*J. H. Fleming.*) Common everywhere in the flooded woods at the margins of the lakes in Algonquin Park, Ont. (*Spreadborough.*) Breeds commonly around Belmont Lake, Peterboro' Co., Ont.; in the fall migration it is sometimes very abundant near Toronto as was the case from the 12th August to 15th September, 1900. (*J. Hughes-Samuel.*) Common in the migrations at London, Ont.; a few breed in retired localities. (*W. E. Saunders.*) Common summer resident at Guelph, Ont.; arrives about April 30th, and leaves about August 29th. (*A. B. Klugh.*) I have a set of five eggs that were taken by Mr. Kells at Listowel, western Ontario, on May 22nd, 1890; the nest was built in a cavity of a turned-up tree root in a swamp. (*W. Raine.*)

BREEDING NOTES.—Nest found on the bank of the Rideau River near Ottawa; it was built by the side of a log and composed of moss, old leaves and plant stems, intermixed with black rootlets. Eggs 5, white with reddish brown spots, mostly at the larger end. (*G. R. White.*) Near the centre of the woodland, adjoining Wild-

wood on the north, is a natural water "runway" where most of the large timber was up-rooted in the terrible wind and ice storm of April, some seven or eight years ago; in one of those up-turned roots, below which there is, in the early season, a deep pool of water, I have on several occasions, in past years, noticed a nest of a water-thrush, and expected this year to take a set of its eggs from a cavity in the same old root, but a delay of several days having occurred after the time when I intended to have visited it for that purpose, I found when I did so on the 28th May, that I was *too late*, the nest was there, but a glance at the four eggs which it contained showed by their galvanized appearance that they were far advanced in incubation, and I did not remove or revisit them; the cavity in which this nest was placed was small, the bird had either found it ready for her purpose, or had partly enlarged it, and the nest itself was made of weed-stems, dry grass, animal hair, and "hair-moss." Usually when the cavity is large, this species uses a quantity of dead leaves in the construction of her nest. (*W. L. Kells.*) This bird is commoner at Sharbot Lake than on the St. Lawrence. Here I have found a number of pairs breeding in 1903. One pair had a nest and young on a small island, June 12th, 1903. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Two taken in Algonquin Park, Ont., May 28th, 1900, by Mr. W. Spreadborough.

675a. **Grinnell's Water-Thrush.**

Seiurus noveboracensis notabilis (RIDGW.) RIDGW. 1885.

We saw our first water-thrush at Painted Stone Portage. It was close to the edge of the water and was running through the undergrowth which fringed the foot of a cliff. On the afternoon of the same day, June 26th, we noted another at Robinson Portage, and on June 30th, a third at Oxford Lake. When we arrived at Oxford House we found the species rather common, and from there to York Factory, as we descended the rivers, its sprightly song was heard daily. A pair seen at a portage on Hill River, July 7th, were feeding young just from the nest. Three specimens were taken in the marshy woods about York Factory, where the species was common July 11th to 17th, and one was taken August 8th by Alfred E. Prebles on Churchill River about 15 miles above Fort

Churchill. These proved to be intermediate between *novaboracensis* and *notabilis*, but nearer to *notabilis*. (*E. A. Prebles.*) Two specimens from Chemawawin, near Grand Rapids of the Saskatchewan, agree more nearly with the species than with *S. novaboracensis notabilis*. (*Nutting.*) A specimen of this species was secured in August west of the Sweet Grass Hills, on the headwaters of the Milk River. It was again observed in the undergrowth surrounding some reedy pools near Chief Mountain. (*Coues.*) A summer resident along watercourses in Manitoba. They were very abundant at Humphrey's Lake on August 9th, 1884. Evidently preparing to migrate. (*Thompson-Seton.*) A common summer resident at Avenue, Manitoba, arriving about May 13th and leaving late in September. (*Norman Criddle.*) This is an abundant spring migrant at Indian Head, Assa., the first individual seen was on May 11th, they became common at once and were abundant in spring for a few days along streams and shores of lakes; one specimen seen at Edmonton, May 15th, 1897, evidently a migrant; common from the mouth of Lesser Slave River to Peace River Landing, in Lat. $56^{\circ} 15'$, June, 1903; breeding around Vermilion Lakes at Banff, Rocky Mountains, July, 1891, rather scarce; one seen on the International Boundary near Rossland, in May, 1902. (*Spreadborough.*) This bird was only seen at Carlton House where it frequented the moist and thickly wooded points of the river. It arrived in May and disappeared in a few days, probably going further north to breed. (*Richardson.*) North to Lapierre's House, on the Mackenzie River; common. (*Ross.*) Two specimens were taken at Duck's, August 7th and 9th, 1889. (*Streator.*) Found breeding along interior streams of British Columbia; Lac la Hache and Bonaparte River. (*Rhoads.*) Breeding at Quesnel, B. C., and less commonly at 178-Mile House. (*Brooks.*)

The barren coast of Behring Sea from the mouth of the Yukon north and south affords it but little shelter in the spring, hence its extreme rarity there in spring. It occurs in spring where the dense growth of bushes about Kotzebue Sound affords it available breeding grounds. It is, in fact, one of the commonest bush-frequentering birds we have in the north. (*Nelson.*) Several specimens of this bird were obtained at St. Michael in August, 1876. I have never observed it there during the breeding season. (*Turner.*) The first sound that I heard on the morning of August

1st, when we were on a small island about 10 miles below Sixty-mile Creek, was the unmistakable alarm note of the water-thrush. This was the first time we had met with this species, and before starting that morning on our daily Yukon drift, Osgood and I each secured a young bird. Near Forty-mile Creek, Tatonlu River and Charlie Creek water-thrushes were again met with. At Circle I saw several August 16th-20th, took one 15 miles above Fort Yukon, August 21st, and saw two in a thicket at the Aphoon mouth August 28th. The young in full plumage taken on the Yukon are clove-brown above, including wings and tail—far darker than is usual in *notabilis*—and have darker streaks below. (*Bishop*.) I have a nest and four eggs taken by Rev. Mr. Stringer at the mouth of Mackenzie River, June 10th, 1899. Nest on the ground under willows near the river bank. (*W. Raine*.) For a few days after our arrival in August at the site of our new winter quarters on the Kowak, Kotzebue Sound, Alaska, this species was moderately common. It frequented the alder and willow thickets along the streams and was shy and restless. The species arrived in the spring on May 22nd, and was henceforth common, especially in the Kowak delta in June; but it was not detected west of the tree limit. (*Grinnell*.) An immature male was taken at Homer, Kenai Peninsula, Alaska, August 18th, 1901. This is undoubtedly a rare bird at Homer, as one specimen was all I noted. (*Chapman*.)

MUSEUM SPECIMENS.

Two; one taken at Indian Head, Assa., May 24th, 1892; one at Peace River Landing, Lat. 56° 15' June 24th, 1903, both by Mr. W. Spreadborough.

676. Louisiana Water-Thrush.

Sciurus motacilla (VIEILL.) BONAP. 1850.

A rare summer resident in Middlesex Co., Ont.; not noted further north. (*W. E. Saunders*.) The large-billed water-thrush is by no means so common a bird in Ontario as the preceding species, but along the southern border of the province, wherever there is a rocky ravine, its loud, clear notes are almost sure to be heard in the spring, mingling with the sound of the falling water. It arrives from the south early in May and leaves in September. (*McIlwraith*.)

CCXXX. **GEOTHYLIS** CABANIS.677. **Kentucky Warbler.***Geothlypis formosa* (WILS.) RIDGW. 1885.

Taken at Quebec by Mr. Nelson. (*Dionne*.) Only one specimen known from near London, Ont.; this was taken by Robert Elliott near Bryanston in a thicket of well grown thorn trees in May, 1898. (*W. E. Saunders*.)

MUSEUM SPECIMEN.

One purchased with the Holman collection in 1885.

678. **Connecticut Warbler.***Geothlypis agilis* (WILS.) GREGG. 1870.

A rare migrant at London, Ont. (*W. E. Saunders*.) A regular spring and autumn visitor to this district reaching us about 20th May and leaving for the north a few days later, 30th May being the latest date on which I had noted it; as this bird is with us again before the end of August it is not unreasonable to hope that it will be found nesting at no great distance. While here the bird is very shy and keeps as much as possible to dense under-growths of vines, but when driven to the trees it tries to conceal itself by sitting motionless behind a limb; a curious habit of this bird is to walk slowly along the small branches of a tree peering into every crevice for insects, much after the manner *Sciurus aurocapillus*. Its song, which I have only heard on two occasions, has considerable merit, and it has also another note not at all unlike the well-known "teacher" of the oven-bird. I saw one or more of these birds daily from 22nd to 30th May, 1900; in the fall they are here during August and may be seen creeping cautiously through borders of *Convolvuli* and *Nasturtiums*; on 18th May, 1896, I took a specimen in Jackson's Park, Peterboro'. Ont. (*J. Hughes-Samuel*.)

A somewhat common summer resident of tamarac swamps in Manitoba; on June 21st, 1883, in the Carberry swamp found a nest and eggs of this species. For full description of this nest and eggs see *The Auk* for April, 1884, p. 192. On June 14th, 1884, at Duck Mountain, found one or two pairs breeding in the tamarac swamp near there. (*Thompson-Scton*.) A tolerably common summer

resident at Avenue Manitoba, arriving about the middle of May and leaving about Sept. 7th. (*Norman Criddle.*) The writer paid a visit to the swamp south of Carberry in June, 1896, and had the good fortune to secure a nest on the outskirts of the bog and almost on a level with the water. It contained one egg and three very young birds; there seemed no scarcity of excited birds as I floundered through the bog.

679. **Mourning Warbler.**

Geothlypis philadelphia (WILS.) BAIRD. 1858.

One specimen obtained at the Fiskinæes in 1846, another at Julienshaab in 1853. (*Arct. Man.*) Rare about Halifax, but common in the interior of Nova Scotia as a summer resident. (*Downs.*) Apparently rare on Prince Edward Island, though a few were found at Souris in the bushy edges of dry fields, adjoining woods. (*Dwight.*) A rare summer resident at St. John, N.B. (*Chamberlain.*) Not uncommon in the upper part of the Restigouche valley, N.B. (*Brittain & Cox.*)

A rare species around Quebec; taken at Beauport. (*Dionne.*) Transient and scarce visitant around Montreal. Has been shot at Outremont and Hochelaga. (*Wintle.*) A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A few of these birds breed in the county of Leeds, Ont. I met with the nest on 31st May, 1893, containing four eggs much resembling those of the yellow-throat. A peculiarity of the nest, and one I believe generally observed, is that it is lined with black fibres and rootlets and not as the yellow-throat with fine grass and hair. This bird is a common species during migrations on the Magdalen Islands and probably breeds there also. (*Rev. C. J. Young.*) A fairly common resident in Parry Sound and Muskoka districts. It is one of the latest arrivals in spring. (*J. H. Fleming.*) Quite common along the Parry Sound Railway in Algonquin Park, Ont., always in dry thickets. (*Spreadborough.*) A not uncommon summer resident all over western Ontario. (*W. E. Saunders.*) Uncommon; but perhaps considered more so than it really is as the bird is such an adept at keeping out of sight. Still if one knows their haunts and reaches them about 18th to 24th May he may see a few if he will only sit down close to the ground and keep quiet; though on walking through one of their favourite retreats one can be almost sure to hear the warning or

scolding notes of any birds that may chance to be disturbed. Any that I have heard singing have been invariably perched on a dead branch well up from the ground. On seeing that they are observed they will dart to thick cover in which case one is not likely to see them again for some time. On 30th July, 1895, I met with a party of adults and young in a thick patch of cedars a few miles west of Toronto. From 11th to 30th May, 1899, I saw from one to six almost daily. (*J. Hughes-Samuel*.) Fairly common during migrations, and breeds in fair numbers. Arrives about May 16th and leaves about September 1st. (*A. B. Klugh*.)

I was agreeably surprised to find this species breeding abundantly at Pembina. At the end of June I found a nest supposed to be of this species but the identification was not at all satisfactory. (*Coues*.) A common summer resident of scrub lands, throughout Manitoba. (*Thompson-Seton*.) A tolerably common summer resident at Avenue, Manitoba; arrived May 24th, 1903, and disappeared early in September. (*Norman Criddle*.) This species was seen at Old Wives' Creek, eastern Assiniboia, in May, 1895. (*Spreadborough*.) A possible hybrid of this species and *G. tolmiei* was taken at Grand Rapids of the Saskatchewan. (*Nutting*.) This was a common species round Lake Manitoba in June, 1881. A nest was taken at "the narrows" on June 16th. (*Macoun*.)

BREEDING NOTES.—On June 14th, 1902, a nest with four eggs was found in a damp place near Montreal. It was built in a clump of golden rod three inches above the ground and composed of grass stems and leaves lined with thin black rootlets and hairs. Nest 4 x 3 and 2'25 x 1'75. Another nest was found in the forks of a small bush, the brim six inches from the ground and made of dried leaves, grass and bark, with a lining of hair-like roots, nest 4'25 x 3 and 2'25 x 1'75. (*Garneau*.) Nest found near Tetreauville, Hull, Que., in a low bush, rather large for the size of the bird, composed of moss, leaves and other vegetable matter, lined with grass and rootlets. Eggs 4, white, slightly sprinkled at the larger end with brown. (*G. R. White*.) Mr. Ottomar Reinecke, of Buffalo, has taken several sets of this species in the Niagara district, Ont. I have found a set of four that he collected at Sherkestown, Welland Co. The nest was built in a tussock of grass one foot from the ground. (*W. Raine*.) I met with a nest near Lansdowne, Leeds Co., June 2nd, 1892. It was located in a rocky place among

brambles and ferns near some large woods. It was a somewhat loosely built structure of weeds, leaves and dry grass, lined with some fibres and black hair hardly 12 inches above the ground and well concealed. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection in 1885; three taken in Algonquin Park, Ont., in May, 1900, by Mr. W. Spreadborough.

680. Tolmie's Warbler.

Geothlypis tolmiei (TOWNS.) STONE. 1899.

A single specimen of this species was secured in the Rocky Mountains in August, near Chief Mountain. (*Coues.*) Quite common in the brush along the upper branches of Swift Current Creek in the east end of the Cypress Hills, Assa.; a nest was taken on June 25th, 1894, it was placed under the root of a turned-up tree on a few dead sticks about six inches from the ground and contained four eggs nearly hatched; nest very bulky, composed of reeds, lined with a little horse hair and dry grass; on June 11th, 1895, this species was taken at Wood Mountain Post, Assa., and seen at Medicine Lodge, near the 49th parallel a few days later; very common in all the wooded ravines on the south side of the Cypress Hills, a nest was taken on the 26th June along a creek in the hills; seen on the West Butte, Sweet Grass Hills and at Waterton Lake, on the 49th parallel, in July, 1895; quite common and breeding at Banff, Rocky Mountains, in the summer of 1891; first seen at Edmonton, Alta., June 3rd, 1897, not common, found chiefly along the high banks back of the river where there is plenty of dead brush, they breed here without doubt; observed from Lesser Slave Lake to Peace River Landing in June, 1903; seen in the foothills south of Crow's Nest Pass; seen at Revelstoke, B.C., May 21st, 1890; they soon became common close to the ground and commenced to breed, later they were found at Deer Park and Robson, on the Columbia River, where they were common; occasional on the north bank of the Thompson at Kamloops in June, 1889; abundant in low woods at Agassiz, B.C., after May 9th, 1889; abundant at Chilliwack, B.C., in the spring of 1902; none were seen in the autumn; first observed two males near Victoria, Vancouver Island, May 9th, 1893; by the 11th of the month they were

common and soon spread all over the island, being found at Sooke, Nanaimo and Comox. (*Spreadborough.*)

Common summer resident in B.C.; breeds. (*Streator.*) A common summer resident throughout the greater portion of the province. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) Found breeding in British Columbia at all localities and at all elevations. (*Rhoads.*)

MUSEUM SPECIMENS.

Twenty-one; one at Wood Mountain, Assa., June 11th, 1895, one at Edmonton, Alta., June 4th, 1897, three at Banff, Rocky Mountains, in June, 1891, one at Revelstoke, B.C., May 30th, 1890, two at Deer Park, Columbia River, B.C., June, 1890, three at Trail, B.C., May and June, 1902, three at Agassiz, B.C., May, 1889, three at Chilliwack, B.C., June, 1901, and six at Victoria, Vancouver Island, May, 1893, all by Mr. W. Spreadborough.

One set of four eggs taken at Farewell Creek, on the south side of the Cypress Hills, Assa., June 27th, 1895, by Prof. Macoun.

681d. Northern Yellow-throat.

Geothlypis trichas brachidactyla (SWAINS.) W. PALMER. 1900.

Common in southern portions of Labrador. Stearns reports it from Natashquan. (*Packard.*) A common summer migrant in Newfoundland. (*Recks.*) An abundant summer resident at Halifax, N.S.; breeding in wet places. (*Downs.*) One individual taken on Sable Island, N.S., May 23rd, 1902. (*James Bouteillier.*) A pair seen at Sydney, Cape Breton Island, N.S., May 25th, 1901. (*C. R. Harte.*) Common at Baddeck and Margaree, Cape Breton Island, July, 1898; Hunter's River, Prince Edward Island, July 2nd, 1888. (*Macoun.*) Found sparingly in the western portions of Prince Edward Island. (*Dwight.*) Common near St. John, N.B., throughout the summer season. (*Chamberlain.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Rare in the valley of the Restigouche River, N.B. (*Brittain & Cox.*) Probably on the Magdalen Islands; not seen but heard. (*Bishop.*) Met with at Fox Bay, Anticosti, where two specimens were seen. (*Brewster.*)

This is the most common warbler in eastern Quebec; taken at Beauport. (*Dionne.*) A common summer resident on Montreal Island. Breeds in Mount Royal park. (*Wintle.*) A common

summer resident in the vicinity of Ottawa. (*Ottawa Naturalist*, Vol. V.) A very common warbler about Lansdowne, Leeds Co., Ont., where after the yellow warbler it is the most frequently seen of all others. I have found its nest several times, usually built in long grass and brush a little above the ground, sometimes as much as twelve inches. I have seen eggs in May, June and July. This species was also common on the borders of a marsh on Amherst Island, Lake Ontario. (*Rev. C. J. Young.*) A fairly common summer resident in Parry Sound and Muskoka districts. Arrives about the same time as the mourning warbler. (*J. H. Fleming.*) Only one individual observed on Moose River, near Moose Factory, June 7th, 1896; not common in Algonquin Park, Ont.; found in low wet ground amongst grass and low bushes. Saw a nest with four young about a week old in a clump of grass in a marsh on June 26th, 1900. (*Spreadborough.*) Generally abundant about Toronto. I have found it in great abundance in all suitable places near Peterborough, Ont. (*J. Hughes-Samuel.*) Common summer resident at Guelph, Ont. Arrives about May 10th and leaves about September 16th. (*A. B. Klugh.*)

Observed at Pembina, on Turtle Mountain, and in the Rocky Mountains, but not in the open country between these points. (*Coues.*) An abundant summer resident in the wooded portions of Manitoba; the Maryland yellowthroat is an abundant resident at Duck Mountain, Man.; its favourite haunts are low damp thickets, so that it is in a measure the complementary species of the mourning warbler, which manifests a liking for none but the driest of copses. (*Thompson-Seton.*) This is a common breeding summer resident at Avenue, Manitoba; arrives about May 20th and stays to September. (*Norman Criddle.*) This is a common summer resident at Indian Head, Assa.; it was first seen May, 21st, 1892, and became common in a few days; they breed in considerable numbers, nesting in rushes about a foot from the ground on the edge of small lakes; first seen at Medicine Hat, Assa., May 15th, 1894, they never became common; late in June the same year they were very common in all the willow thickets bordering the upper branches of Swift Current Creek in the east end of the Cypress Hills; one specimen was shot at 12-Mile Lake, near Wood Mountain, Assa., June 6th, 1895; later in the month it was taken on Rocky Creek near the 49th parallel and on Frenchman's River; it was common in the Cypress Hills wherever there was brush, and

the same in the Milk River valley and along St. Mary's River and at Waterton Lake; first seen at Edmonton, Alta., May 27th, 1897, common and nesting in the willows by June 1st; common from Edmonton to the summit of the Rocky Mountains in Yellowhead Pass in July, 1898, breeding in willow thickets on the borders of marshes; common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; quite common in the foothills from Calgary southward; a nest containing four eggs was found on Bragg's Creek on June 28th, 1897, in a tuft of grass, nest made of dry grass; this was a common species at Banff, within the Rocky Mountains in June, 1891. (*Spreadborough.*)

BREEDING NOTES.—Breeds at Ottawa and Lake Nomingue, 100 miles north of it, from the middle of May to the middle of July. Nests in swampy places and undergrowth, on or near the ground, hidden among reeds, weeds and small bushes; they are made of reed-stalks, grasses and leaves, lined with fine grass and sometimes a few hairs; two nests were found in reed-plants having the form of inverted cones five inches long. Nests average 4×3 and 2×1.50 . (*Garneau.*) Nests are built in low bushes close to the ground at Ottawa, composed of dead leaves and grass, lined with fine grass, hair and rootlets. Eggs 4 to 6, white, sparingly sprinkled at larger end with brown. (*G. R. White.*) The nests I have seen contained eggs the first week in June; the nest is well concealed, but I have seen two, which were six or eight inches above the ground; one of these was in a small elm sapling, around which long rank grass grew; I could not assign the nest to any other species as the eggs were similar to others I had seen and a male bird was hopping about in the immediate vicinity. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Eleven; one taken at Ottawa by Dr. F. A. Saunders; one purchased with the Holman collection in 1885; one taken at Ottawa in May, 1888, by the writer; one taken at 12-Mile Lake near Wood Mountain, Assa., June 5th, 1895, two at Medicine Hat, Assa., May, 1894, three at Edmonton, Alta., in May, 1897, two at Banff, Rocky Mountains, June, 1891, all by Mr. W. Spreadborough.

Three sets of eggs; one of three taken at Indian Head, Assa., June 6th, 1892; one of four taken on Bragg's Creek, foothills of Rocky Mountains, Alta., June 28th, 1897, both by Mr. Spread-

borough; one set of four eggs taken at Lansdowne, Ont., June 6th, 1888, by Rev. C. J. Young; nest a few inches from the ground in a field, in clump of wild plum and spiraea.

681b. **Pacific Coast Yellow-throat.**

Geothlypis trichas arizela OBERHOLSER. 1899.

Pacific coast region of southern British Columbia to California. Taken at Comox, Vancouver Island. (*Oberholser.*) First seen at Revelstoke, B.C., on May 15th, 1890, later they became common and commenced to breed, the males were very much in evidence; late in June they were found breeding at Robson, on the Columbia River; one individual was observed in a marsh at Sheep Creek, on the International Boundary in May, 1902; quite common in thickets along the North Thompson at Kamloops, B.C., in June, 1889; very common in wet woods at Agassiz, B.C., in May, 1889; observed a number at Chilliwack, B.C., in the spring of 1901; saw one at Huntington on the International Boundary, B.C., in autumn; rather rare on Vancouver Island, a few taken in 1893. (*Spreadborough.*) Common everywhere; breeds. (*Streator.*) A common summer resident throughout the greater portion of the province. (*Fannin.*) An abundant summer resident at Chilliwack. (*Brooks.*) Rare on Vancouver Island, abundant at Lulu Island in the Fraser valley, and about the shores of reedy lakes in the interior of British Columbia. (*Rhoads.*)

MUSEUM SPECIMENS.

Nine; two taken at Agassiz, B.C., May, 1889, one at Chilliwack, B.C., May 27th, 1901, two at Burnaby Lake, near Vancouver, B. C., in April, 1889, three at Revelstoke, B.C., in May, 1890, and one at Robson, Columbia River, June 21st, 1890, all by Mr. W. Spreadborough.

CCXXXI. **ICTERIA** VIEILLOT. 1807.

683. **Yellow-breasted Chat.**

Icteria virens (LINN.) BAIRD. 1865.

The only specimen of this species I ever collected was on 16th May, 1884, when I found a dead individual near my house where it was probably killed by a telegraph wire. A week or so after-

wards, when visiting Mr. Dickson, who is station-master on the G.T.R. at Waterdown, he pointed out to me an old, unused mill-race, grown up with briars and brambles, where the day before he had seen a pair of chats mated. Mr. Dickson was collecting at the time, and was greatly surprised at their sudden appearance within ten feet of where he was standing, but on his moving backward, with a view of getting to a safer shooting distance, they disappeared in the thicket and did not again become visible, though they kept up their scolding as long as he remained near the place. A pair of this species was also found by Mr. Saunders breeding on the north shore of Lake Erie, near Point Pelee, which completes the record for Ontario, so far as I have heard. (*McIlwraith.*)

MUSEUM SPECIMEN.

One specimen purchased with the Holman collection in 1885.

683a. **Long-tailed Chat.**

Icteria virens longicauda (LAWR.) COUES. 1872.

In the bushes which line the banks of the Thompson River, below Ashcroft, B.C., I secured two males of this species; another was heard singing on a ranch above the town. (*Rhoads.*) From Kamloops south through the Okanagan district of B.C. (*Fannin.*) Sumas, in the Fraser River valley, 26th May, 1897. (*Brooks.*)

CCXXXII. **WILSONIA** BONAP. 1838.684. **Hooded Warbler.**

Wilsonia mitrata (GMEL.) BONAP. 1838.

Mr. Norval reports finding this species occasionally, at Port Rowan, on the north shore of Lake Erie, and I once found a young male near Hamilton, Ont. It was found towards the end of May when there had been a big bird-wave the previous night, and this one had been apparently carried away in the crowd. (*McIlwraith.*) A specimen of this warbler, rare in Ontario, was captured at Cataragui, near Kingston, Ont., and is now in the collection of a resident there. (*Rev. C.J. Young.*)

MUSEUM SPECIMEN.

One purchased with the Holman collection in 1885.

15½

685. **Wilson's Warbler.**

Wilsonia pusilla (WILS.) BONAP. 1838.

Audubon, Vol. II., p. 21, records it as breeding in Labrador, and a nest obtained. (*Packard.*) Common at Moose Factory, June 9th, 1896; observed one at Fort George, on James Bay, 150 miles further north, on June 20th; none seen afterwards. (*Spreadborough.*) A summer migrant in Newfoundland, but not very common. (*Reeks.*) Abundant along the Humber River, Newfoundland, 1899. (*Louis H. Forster.*) Rare summer resident at Halifax, N.S. (*Downs.*) One specimen was secured at Tignish, Prince Edward Island, in an extensive arbor-vitæ and alder swamp. Not common at Baddeck, Cape Breton Island, in 1887. (*Dwight.*) An uncommon summer resident at St. John, N.B. (*Chamberlain.*) Only observed twice at Ellis Bay, Anticosti, when the old ones were feeding young fledglings. (*Brewster.*)

Met with in the woods around Quebec; taken at Beauport. (*Dionne.*) A transient and scarce visitant at Montreal. Observed only in spring. Has been seen as late as July 13th on the island of Montreal. (*Wintle.*) A moderately common summer resident around Ottawa. Found breeding in the Mer Bleue, 3rd July, 1890, by Messrs. W. E. and F. A. Saunders. (*Ottawa Naturalist*, Vol. V.) A rare migrant in eastern Ontario. Not uncommon on the Magdalen Islands and frequently observed about Mingan, Que., in June, 1898, where they breed. (*Rev. C. J. Young.*) The only record I have for Parry Sound and Muskoka districts is that of a male which I took on the Magnetawan River, near Emsdale, on 20th May, 1897. (*J. H. Fleming.*) I notice it around each spring at Toronto about the third week in May, and in the fall they sometimes become very abundant, choosing usually willows near the banks of a stream. I have seen such places alive with these birds from 21st August to 9th September. (*J. Hughes-Samuel.*) A rare migrant in Middlesex Co., Ont. A single male was noted in full song in North Bruce on 20th June, 1900, where it was doubtless breeding. (*W. E. Saunders.*) Fairly common during migrations at Guelph, Ont. Seen about May 18th and again about August 27th. (*A. B. Klugh.*) Rather common in the undergrowth bordering a swamp at Robinson Portage, June 27th, 1901. Several were seen at York Factory, July 10th to 17th, one being taken July 14th. (*E. A. Prebles.*)

A common species eastward, but only observed on the 49th parallel in the Rocky Mountains near Chief Mountain. (*Coues.*) A rare migrant in eastern Manitoba. Near Long River, Man., I saw a black-capped warbler on May 21st, 1882, my only record, though others claim it is a summer resident. (*Thompson-Seton.*) Found at Grand Rapids and Chemawawin on the Saskatchewan. (*Nutting.*) One pair seen at Fort McMurray, Lat. $56^{\circ} 40'$; common on the Methye Portage; common between Methye Portage and Isle à la Crosse. (*J. M. Macoun.*) A tolerably common summer resident at Avenue, Manitoba; arrives about May 18th and leaves about the middle of September. (*Norman Criddle.*) Three individuals were seen on May 15th, 1894, at Medicine Hat, Assa., and later a few more; first seen at Edmonton, Alta., on May 29th, 1897, a few pairs remained to breed; quite common and breeding at Banff, Rocky Mountains, in June, 1891; abundant at Revelstoke, on the Columbia River, from May 15th, 1890, nested in the woods in large numbers; observed one individual on the International Boundary near Trail in May, 1902. (*Spreadborough.*)

North to Lapierre's House on the Mackenzie River; very rare. (*Ross.*) This is one of the commonest brush-frequenting species in the north and extends its breeding range to the shores of the Arctic Ocean where it is found breeding about Kotzebue Sound as well as along the entire coast of Norton Sound, wherever shelter is afforded. (*Nelson.*) The series of Wilson's warbler taken in eastern and western British Columbia compared among themselves and with specimens from the Atlantic States are devoid of any differences which would justify their separation. (*Rhoads.*) A single specimen of this species was captured by a native in the bushes which skirted a lake about a mile distant from the redoubt at St. Michael; it is not a common bird in that vicinity, occurring only in the fall migrations; other specimens were obtained from Fort Yukon and Nulato, where it is not rare. (*Turner.*) Osgood took an adult female near the Chandindu River, Aug. 4th, 1899, and I a young female near Charlie Village, Aug. 11th, and a young male 25 miles above Circle City, Alaska, August 20th. These birds, while not typical *pusilla*, are, like those of the lower Yukon, nearer it than *pileolata*. (*Bishop.*)

BREEDING NOTES.—On June 14th, 1893, I found a nest and four eggs of this species and secured the parent. The nest was built on the ground in a willow swamp in a clump of herbage on the

edge of Vermilion Lake at Banff, Alberta. (*W. Raine.*) Nest, in a hemlock tree near the ground in woods near Ottawa, composed of dry moss and twigs compacted together; lined with fine fibre and fine grass; eggs 4, dull white, sprinkled with reddish and brown dots towards the larger end where the markings form a circle, leaving the extremity plain. (*G. R. White.*) This is a rare warbler in Ontario; a nest was taken in the vicinity of Lansdowne, Leeds Co., in June, 1894 not very far from the St. Lawrence; there were four eggs in this nest, which was built on the ground; they were small and white, thickly marked with fine brick-red spots. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Seven; one taken at Ottawa by Dr. F. A. Saunders, July 3rd, 1890; one taken at Hyde Park near Toronto, by Mr. S. Herring, in May, 1891; one at Medicine Hat, Assa., May 17th, 1894; three at Canmore, Rocky Mountains in May, 1891, and one at Banff, Rocky Mountains, June 15th, 1891, all by Mr. Spreadborough.

685a. **Pileolated Warbler.**

Wilsonia pusilla pilcolata (PALL.) COUES. 1880.

Rather rare at Agassiz, B.C., in May, 1889; observed at Chilliwack, B.C. and along that river to the head of Chilliwack Lake in the summer of 1901; first seen on May 7th, 1893, near Victoria, Vancouver Island, by the 14th, they were common in all the willow thickets: they were seen at Sooke, Nanaimo, Comox and other points and are a common summer resident on the island. (*Spreadborough.*) British Columbia. (*Lord.*) More common in the coast region than in the interior; breeds. (*Streator.*) A common summer resident, chiefly west of the Coast Range. (*Fannin.*) A tolerably common summer resident at Chilliwack. (*Brooks.*) As early as May 12th, these birds have been found feeding their young in Oregon; from this region it extends north and occupies the entire Pacific shore of the Alaskan mainland. (*Nelson.*) An adult male was taken at Sitka, Alaska, on August 18th and several others including juveniles seen on August 21st; they were in low brush along the shores of a secluded bay where they possibly breed. (*Grinnell.*)

We found this the most abundant bird at Glacier, June 5-10, frequenting the alder thickets from the valley as far as they

extended up the hills; I saw a yellow warbler I thought of this species on White Pass summit, June 12th; pileolated warblers were common at Log Cabin, Bennett, and Caribou Crossing, and I am confident I heard them singing at Lake Marsh; adult males from Glacier resemble normal *pileolata* closely, but have the back rather more green; those from the Yukon valley, while having the orange forehead and lower parts of this form, have the duller green back of *pusilla*. (*Bishop*.)

MUSEUM SPECIMENS.

Eleven; six taken at Revelstoke, B.C., in May, 1890; two at Agassiz, B.C., in May, 1889; one at Chilliwack, B.C., May 23rd, 1901, and two at Victoria, Vancouver Island, May, 1893, all by Mr. Spreadborough.

686. **Canadian Warbler.**

Wilsonia canadensis (LINN.) COUES. 1880.

Audubon, Vol. II., p. 15, reports it as breeding in Labrador. (*Packard*.) A not uncommon summer migrant in Newfoundland. (*Reeks*.) Rather common about Tignish, Prince Edward Island, but not met with elsewhere. (*Dwight*.) An occasional summer resident at St. John, N.B. (*Chamberlain*.) A tolerably common summer resident, frequenting moist woods and shrubbery, at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Occurring occasionally in the valley of the Restigouche River, N.B. (*Brittain & Cox*.)

An infrequent visitor in eastern Quebec, taken at Beauport. (*Dionne*.) A scarce summer resident around Montreal; observed from May 20th to September 2nd; a few breed. (*Wintle*.) A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Frequently met with about Kingston, Ont.; a few remain to breed in the district. (*Rev. C. J. Young*.) A common summer resident in Parry Sound and Muskoka districts. (*J. H. Fleming*.) Common everywhere in Algonquin Park, Ont. in thick woods, usually seen near the ground; one individual seen at Moose Factory, James Bay, June 11th, 1896. (*Spreadborough*.) Common during migration at Toronto, Ont., but less so during the summer. (*J. Hughes-Samuel*.) A fairly common breeder in suitable swampy thickets around London, Ont. (*W. E. Saunders*.) Com-

mon summer resident at Guelph, Ont.; arrives about May 11th, leaves about August 28th. (*A. B. Klugh.*)

A summer resident of wooded hillsides in Manitoba, but its habits are not very well known; has been found more frequently to the north of Manitoba. (*Thompson-Seton.*) A rare summer resident at Avenue, Manitoba; arrives about May 20th and leaves about the last of August. (*Norman Criddle.*) A single specimen of this bird was killed in June at Cumberland House; it was in a dense thicket of alder, perched near the ground. (*Richardson.*) One specimen secured at Grand Rapids and another at Chemawawin, Saskatchewan River. (*Nutting.*) One specimen taken at Moose Factory, James Bay, by Mr. Walter Haydon, in the summer of 1881. (*E. A. Prebles.*) Not observed anywhere west of Manitoba except at Edmonton, Alta., where a few were observed and one taken May 29th, 1897. (*Spreadborough.*)

BREEDING NOTES.—June 12th, 1902, I found this bird nesting at Rice Lake, Ont.; nest in a cavity of a fallen tree root in deep woods. (*W. Raine.*) Nests near Ottawa and at Lake Nomingue, 100 miles north of Ottawa, in June and July; it is built on the ground in the woods, and made of dried leaves, lined with fine grass, strips of bark and hairs; the walls are thin for a nest made of leaves. (*Garneau.*)

On the 28th May, when passing the "old root" of a fallen tree I discovered the newly made nest of a small bird, which at first I thought might be that of a mourning warbler, whose scolding notes I heard near by; on the 5th June, when I thought the set of eggs would be deposited I revisited the place; on the nest sat the mother bird, and there she remained until I almost touched her with my hand, then she flushed out, making some attempts to draw off my attention, and uttered a few sharp "chips," and I saw at once that she was a Canadian warbler; the nest then contained five eggs, and incubation had begun; the nest was placed in a cavity among the rocks, only a few inches above the more level earth, and was composed of dry leaves, strips of bark, and other fine vegetable fibres, and lined with some long horse-hair; when placed side by side with that of *M. varia* previously described, I make this comparison of the nests and their sets of eggs, after the latter are blown; the nests—in composition and size—are very much alike; both are rather loosely put together, but there is quite

a distinguishing difference in the eggs; those of *M. varia* are actually the largest, and more globular in form, and the ground colour more of a chalky whiteness, and the spotting more of a brownish hue; with a general tendency to form a wreath about the larger end, and be distributed over the surface, even to the smaller point; the eggs of the Canadian warbler have a clear white hue, with a beautiful rosy blush, and the colouring which clouds the whole of the larger end of each egg, has more of an orange tinge than either reddish or brown, the dotting on the surface is more separated, and the approach to the smaller point more devoid of dotting than are those *M. varia*, but in all the specimens the variations are so numerous that it is difficult to describe them; this species is very local in its distribution, being generally found to frequent the borders of swampy woodlands, having much the same habitat as the water-thrush and *M. varia*, but here it is more abundant than either of the other species, and seems more disposed to explore the underwood of the higher hardwood lands and nest on more level ground; altogether about a score of the nests of this species have come under my observation in my woodland rambles in the vicinity in the past twenty years; and, as in the case of the water-thrush, black-and-white warblers, and several other species, several of these nests were in cavities previously prepared for them. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Seven; one purchased with the Holman collection in 1885; four taken at Ottawa by Dr. F. A. Saunders in May, 1891; one taken in Algonquin Park, Ont., May 26th, 1900, and one at Edmonton, Alta., May 29th, 1897, by Mr. W. Spreadborough.

CCXXXIII. **SETOPHAGA.** SWAINSON. 1827.687. **American Redstart.**

Setophaga ruticilla (LINN.) SWAINS. 1827.

A specimen was taken at Rupert House, September 3rd, 1860, by Mr. James McKenzie. (*Packard.*) Common all along Moose River to James Bay. On June 9th, found a nest with two eggs in a white birch about four feet from the ground. Nest composed of fine bark lined with the down of some plant. (*Spreadborough.*) A summer migrant but rare in the north of Newfoundland. (*Reeks.*) An abundant summer resident in Nova Scotia. (*Downs.*)

Common at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898; in woods along Rustico Bay, Prince Edward Island, June, 1888. (*Macoun.*) An abundant summer resident on Prince Edward Island. (*Dwight.*) A common summer resident in New Brunswick. (*Chamberlain.*) Tolerably common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) An abundant summer resident on the Magdalen Islands. (*Bishop.*) Not uncommon at Ellis and Fox bays, Anticosti, and others at Mingan, on the North Shore. (*Brewster.*) Common in the Restigouche valley, N.B. (*Brittain & Cox.*)

A rather common summer resident in eastern Quebec; taken at Beauport. (*Dionne.*) An abundant summer resident around Montreal. Breeds in the city and in Mount Royal park. Observed from May 11th to August 29th. (*Wintle.*) Common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A common warbler around Lansdowne, Leeds Co., Ont. I have found the nest in the crotch of a maple sapling or other tree from six to twenty feet from the ground. They are also common on the Magdalen Islands, where I observed them in June, 1897. (*Rev. C. J. Young.*) One of the most common summer residents in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Common in thickets along streams and around lakes in Algonquin Park, Ont., 1900. (*Spreadborough.*) Abundant around Toronto. (*J. Hughes-Samuels.*) Common as a migrant at Guelph, Ont. A few pairs breed. Arrives about May 12th, and leaves about September 1st. (*A. B. Klugh.*) An abundant spring migrant at Penetanguishene, Ont. (*A. F. Young.*)

Very abundant at Pembina where it breeds. Not observed any further west along the 49th parallel. (*Coues.*) A common summer resident in Manitoba. It seems to be abundant in all the wooded parts of the province. Took a nest on Duck Mountain, June 8th, 1884. It was placed in a low fork of a sapling. (*Thompson-Seton.*) A common summer resident at Avenue, Manitoba; arrives about May 15th, leaves about September 16th. (*Norman Criddle.*) Four males and one female were seen at Medicine Hat, Assa., May 17th, 1894, they never became common; common at Old Wives' Creek, Assa., May, 1895; it was evidently breeding at 12-Mile Lake, near Wood Mountain, Assa., June 6th, 1895; a few individuals were seen at Waterton Lake in July, 1895; common in thick woods from the head of Lesser Slave Lake to Peace

River Landing, in Lat. $56^{\circ} 15'$, in June, 1903; first seen at Edmonton, Alta., May 29th, 1897, common by June 1st, soon commenced nesting along the river and smaller streams; common in willow thickets from Edmonton to Athabasca Pass in June, 1898; one observed at Crow's Nest Lake, Rocky Mountains, July 28th, 1897, and breeding at Banff, Rocky Mountains, in July, 1891; a few seen at Revelstoke, B.C., in May, 1890; in June they were found nesting in low thickets on small poplar trees at Deer Park and Pass Creek, near Robson on the Columbia River; one observed at Rossland, B.C., in 1902. (*Spreadborough.*) One pair seen at Lac La Biche River, 30 miles below Athabasca Landing, Alta. In June and July, 1889, it was abundant at Kamloops and along the North Thompson River, B.C.; rather rare at Enderby near Sicamous, B.C. (*J. M. Macoun.*)

This beautiful bird is found in summer as far north as Lat. 58° . It frequents moist shady places in the Northwest Territories, flitting about among the moss-grown stems of the tall willows that skirt every marsh in these quarters. (*Richardson.*) North to Fort Good Hope on the Mackenzie River; common. (*Ross.*) British Columbia. (*Lord.*) Common summer resident in the interior; breeds. (*Streator.*) Found throughout the province, but nowhere common. (*Fannin.*) Well represented all over the interior of British Columbia. (*Rhoads.*) Regularly east of, and accidentally west of, the Coast Range in British Columbia. Breeding throughout the Cariboo district of British Columbia. (*Brooks.*)

BREEDING NOTES.—In June and July nests with eggs are found around Ottawa and Lake Nominigue, 100 miles north of it, in bushes and trees from four to twenty feet high; they are made of flexible bark, ornamented on the outside with the white bark of the birch, and are often lined with a few feathers or hairs. Nests $2'50 \times 2'50$ and $2 \times 1'50$. (*Garneau.*) Builds an elegant nest in upright crotch from 5 to 25 feet from the ground; nest is composed of plant down and vegetable fibre and bark strips, lined with fine grass, rootlets and a little hair; eggs 4, white, thickly sprinkled over and spotted with brown, lilac and purplish. (*G. R. White.*) They nest in June, building in upright crotches in bushes 10-20 feet up; white birches seem to be the favorite tree for their nests, probably on account of the position of the limbs; the nest is firmly constructed of strips of bark, grasses and plant down, lined with hair; eggs 3 or 4. (*W. H. Moore.*) This is one

of the commonest warblers in Leeds Co., Ont.; I have frequently seen the nest placed in some crotch of a small tree from five to twenty feet from the ground; the eggs are laid the first week in June. (*Rev. C. J. Young.*)

Many nests of this species in past years have come under my observation; but it is only of those noted the present season that I purpose here to speak; on May 22nd I noticed a female redstart flying from a partly composed nest, the site of which was in the fork of a small maple sapling, and at an elevation of about eight feet from the ground; the nest could be easily seen, when the searcher's gaze was directed to it, at a distance of four rods; the woods around it were rather open, and the leaves of the sapling were a yard or more above it; eight days after I found that this nest contained four of the warbler's own eggs and one of a cowbird, all of which were fresh; of all the warblers, the nest of this species is about the neatest and most firmly put together, the bird evidently emitting a good deal of saliva upon the material of which the nest is composed when she is placing the fragments in position; all this work, as well as that of incubation, appears to be done by the female, though it is probable that her more beautifully plumaged consort occasionally supplies her with food as she incubates her eggs; and he certainly largely assists in feeding the young and in trying to defend them if exposed to danger; if the first efforts of this bird to propagate its species are successful, it does not nest more than once in the season, otherwise it will nest a second time; the materials of which the greater part of the nest of the redstart is composed is a kind of fibre gathered from decaying timber and the seed pods of various kinds of vines, and it is usually lined with animal hair; I have never known the set of eggs to exceed four in number, and generally the second set contains only three, with the addition mostly of a cowbird's; the eggs are of a whitish ground hue, marked towards the larger end with a wealth of spotting of a flesh-coloured hue, and smaller dots of the same hue scattered over the surface; another bird of this species was noticed building her nest at a much higher elevation deeper in the wood, and even in a more exposed position; but a few days after the nest was completed it wholly disappeared, and I suspected that an olive-sided fly-catcher that had made her nest on an overhanging branch, a few rods off, was the author of that.

Other nests were observed, but there was nothing specially noteworthy about them. (*W. L. Kells.*)

MUSEUM SPECIMENS.

Nineteen; one purchased with the Holman collection in 1885; two taken at Ottawa in May, 1888, by the writer; two at Ottawa by Dr. F. A. Saunders in May, 1891; one in Algonquin Park, Ont., May 26th, 1900; two at Medicine Hat, Assa., May, 1894; four at Banff, Rocky Mountains in May and June, 1891; one at Robson on the Columbia River, B.C., June 24th, 1890; three at Kamloops, B.C., in June, 1889; two at Edmonton, Alta., in May, 1897, and one at Peace River Landing, June 19th, 1903, all by Mr. W. Spreadborough.

A series of seven eggs taken at Ottawa and presented to the museum.

FAMILY L. **MOTACILLIDÆ.** WAGTAILS.CCXXXIV. **MOTACILLA** LINNÆUS. 1758.694. **White Wagtail.**

Motacilla alba LINN. 1758.

One sent from the southern inspectorate of Greenland in 1849; another obtained by Dr. Walker at Godhavn in August, 1857. (*Arct. Man.*) Four individuals of this species were seen by Alexander Brown and James Lyell (of the Hudson Bay Company), August 29th, 1883, at Hunting Bay, four miles south of Fort Chimo. These persons described the birds accurately and declared they were the two parents and two young of the year. (*Packard.*)

695. **Swinhoe's Wagtail.**

Motacilla ocularis SWINH. 1860.

This bird is of doubtful occurrence in Alaska and is admitted on the capture of a single specimen in "Northwest America" by Capt. Kellett and Lieut. Wood; I obtained a fine male adult on June 23rd, 1881, in Plover Bay, on the east coast of Siberia. (*Nelson.*) At Attu Island, Alaska, I was looking out of my window on the morning of May 14th, 1881, watching the vessel which was to take me to Unalaska Island enter the harbour; I saw a bird just beneath

the window on the ground, not more than seven feet from my eyes, and which I believe to be this species. I failed, however, to procure it and hence there is an element of doubt in the identification. (*Turner.*) On the morning of August 28th the *Robert Kerr*, on which I was a passenger, was hindered from proceeding by a gale and low water on the bar, and was made fast to the bank at the Aphoon mouth of the Yukon. As I came on deck I saw half a dozen white wagtails fly about the vessel and settle in the grass close by. While I returned for my gun they left, but a thorough acquaintance with *Motacilla alba* in Egypt, where it is abundant during the winter, leaves me no doubt that these birds were wagtails. (*Bishop.*)

CCXXXV. **BUDYTES** CUVIER. 1817.

696. **Siberian Yellow Wagtail.**

Budytes flavus leucostriatus (HOM.) STEJN. 1885.

The yellow wagtail of eastern Siberia extending across Behring Sea into that portion of Alaska in the region of Behring Strait, is one of the handsomest among its several related forms. The first specimens were obtained in the vicinity of St. Michael where it was found abundant during the summers of 1866 and 1867. In Alaska I found this bird along the coast as far south as the Yukon mouth, where it arrived May 28th, 1879, but was extremely rare. St. Michael, on Norton Sound, appears to be the centre of its abundance on our coast, and thence north it becomes rarer until at Kotzebue Sound it is, as at the Yukon mouth, very rare. (*Nelson.*) This bird arrives about June 12th and is very shy. Few females come with the earliest visitants, yet but few days elapse before mating begins. (*Turner.*) One adult male and two others were obtained July 11th, 1898, at Point Barrow, Alaska. (*Witmer Stone.*)

CCXXXVI. **ANTHUS** BECHSTEIN. 1807.

697. **American Pipit.**

Anthus pensilvanicus (LATH.) THIENEM. 1849.

The first specimens of this species were seen in Cumberland Gulf, May 30th, 1879. In the autumn they leave for the south about the beginning of September. At Annanactook Harbour, the nest was always placed deep in a rock crevice, so far in, in fact, that I could not secure any of the nests that I found. On

the Greenland coast, especially in the vicinity of habitations, they build in a tussock much like a sparrow, but there the ravens are not so numerous or destructive to birds and eggs as in Cumberland Sound. The species is generally distributed on both sides of Cumberland Sound, and the west shore of Davis' Strait to Lat. 68° N., at least, but nowhere very abundant. (*Kumlien.*) Supposed to breed in Greenland not further south than Lat. 67°, but unquestionably does so in the northern parts of the North American continent. (*Arct. Man.*) One of the most abundant birds in northeastern Labrador. Characteristic, with the horned lark, of the most barren and wind-swept hill-tops. Breeds very commonly. (*Bigelow.*) Abundant throughout Labrador. Nests and eggs were obtained at Fort Chimo where it breeds plentifully. (*Packard.*) Common on the high rocky islands in James Bay and on all the high barren hills between Richmond Gulf and Ungava Bay. June 18th, 1896, found a nest, with five eggs, beneath over-hanging rock composed of dry grass. (*Spreadborough.*) Two males were taken at Chateau Bay, Labrador, July 14th, 1891. (*Norton.*) A common summer migrant in Newfoundland. (*Reeks.*) A common migrant in and around Halifax, N.S. (*Downs.*) Seen in numbers on Sable Island, N.S., September 19th, 1902. (*James Bouteillier.*) Occurs in spring and fall at Grand Manan, N.B. (*Chamberlain.*) A common spring and autumn resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) A common but transient visitant at Montreal. Observed both in spring and autumn. Flocks larger in the fall migrations. (*Wintle.*) Occasionally common around Quebec in spring and fall. Taken at Beauport. (*Dionne.*)

An abundant migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) I have seen a few of these birds in Leeds Co., Ont., in the month of October. (*Rev. C. J. Young.*) Reported as common, in the autumn at Beaumaris, by Mr. Tavernier. Mr. Kay saw some at Port Sydney on August 15th, 1890. They occur regularly in Muskoka, and were common at Sand Lake in October, 1900. (*J. H. Fleming.*) Usually quite abundant along the shores of Toronto Bay in the fall, but passing through so quickly in the spring as to be often overlooked. Those I have seen in spring have been here during the first week in May. (*J. Hughes-Samuel.*) A passing migrant at Guelph, Ont. (*A. B. Klugh.*) Rather common, July 24th to 30th, 1901, on the rocky hills at Fort Churchill where a pair was taken. A large flock was seen on

lower Hayes River as we were ascending it, August 29th. (*E.A. Prebles.*)

Along the 49th parallel this species is a bird of passage, but the second season they were found in August about Chief Mountain Lake, and no doubt those then observed were bred in immediate vicinity as at that time the fall migration had not commenced. (*Coues.*) An abundant spring and fall migrant in Manitoba. (*Thompson-Seton.*) A common spring and fall migrant at Avenue, Manitoba. (*Norman Criddle.*) A small stream of these birds kept passing Medicine Hat, Assa., from April 16th to May 3rd, 1894, when the last ones disappeared; found with their young more than half grown on Sheep Mountain, close to Chief Mountain, on the 49th parallel, at an altitude of 7,500 feet, July 30th, 1895; first saw a flock of about twenty at Edmonton, Alta., April 27th, 1897, they continued to be common to May 10th, when all disappeared; only one observed in the Athabasca Pass on September 29th, 1898; common on the mountains above timber line south of Calgary in July and in the Crow's Nest Pass in August; frequent in spring at Banff, Rocky Mountains, found on the mountains around Devil's Lake, in August, 1891; common after April 15th, 1890, on the flats by the Columbia River; later in the same year they were found on the mountains near the head of Bow River; they evidently breed on all the mountains above timber line; seen in large flocks at Trail near the 49th parallel May 8th, 1902; seen in flocks at Penticton, B.C., April, 1903; found breeding on nearly all the mountains of the Coast and Gold ranges, B.C., near the 49th parallel, where there was grass, at an altitude of about 5,000 feet; very abundant on the shore of Sumas Lake in the fall of 1901; first seen on Vancouver Island on April 16th, 1893, they were common on ploughed fields by the 24th, last seen going north May 7th. (*Spreadborough.*) Found on the summit of Mount Finlayson near Victoria on May 17th, 1887, where they doubtless breed. (*Macoun.*)

This bird was observed in small flocks on the plains of the Saskatchewan in the spring of 1827, feeding on the larvæ of small insects. (*Richardson.*) North to Fort Simpson on the Mackenzie River; not common. (*Ross.*) I have reason to believe that this bird is among those that resort to the Anderson to breed, but no nests were found. (*Macfarlane.*) Shot east of Coast Range. (*Lord.*) Large flocks were found about the meadows of the coast district

during the fall migration. (*Streator*.) East and west of Coast Range, abundant; found throughout some winters on Vancouver Island. (*Fannin*.) Common migrant through the Fraser valley at Chilliwack; breeds above the timber line on the Coast Range. (*Brooks*.) Province of British Columbia at large; breeding sparsely on the plateaus and mesas of the interior up to 4000 feet. (*Rhoads*.) Very common at Sumas Lake, Lulu Island and Matasqui Prairie, B.C., in September, 1894. (*E. F. G. White*.) This species arrives at Unalaska early in May and by the 19th had eggs on the hillsides. They seem to breed along the whole coast of northern Alaska and on many of the islands in Behring Sea. (*Nelson*.) This species occurs throughout the territory of Alaska, including the Aleutian Islands. It is found in the greatest abundance in the interior of the mainland, especially at Fort Yukon; it rarely visits St. Michael except in the fall. (*Turner*.) A pair seen on a grassy tide-flat beyond Indian River at Sitka, Alaska, on June 10th and the female secured; from the condition of the ovaries, I judged that it would have laid eggs within a week. (*Grinnell*.) A bird thought to be this species was seen on a snow field in the mountains of Moresby Island, Queen Charlotte Islands, B.C., on June 23rd, 1900; comparatively few pipits were seen around Cook's Inlet, Alaska; one specimen was taken at Tyonek, September 18th. (*Osgood*.)

BREEDING NOTES.—I have sets taken by F. F. Payne at Cape Prince of Wales, Hudson Strait, in June, 1886; also sets taken at Hamilton Inlet, Labrador, June 30th, 1895, by Lambert Dicks, as well as sets taken at Nachvak, Labrador, June 15th, 1897; the Rev. I. O. Stringer found a nest and five eggs at Peel River, near the mouth of the Mackenzie River, June 25th, 1900, this was built of dried grass on the ground. (*W. Raine*.)

A male taken at Skagway, June 3rd, was probably a belated migrant; on the heights above Glacier, Osgood saw several, June 5th, and we found them common at Summit, June 11-13; a female taken, June 13th was laying, and a fresh but empty nest I found the same day I attributed to this species, no other being near; this nest was loosely formed of fine dry grass in a hollow in the deep moss which covered the almost perpendicular side of a boulder lying on a hill high above Summit, only a small hole for entrance showing in the moss. We often saw the song-flight at Summit; launching himself with a sharp preliminary "chip" from one of the granite boulders that abound there, the male

would rise rapidly to a height of a hundred feet or more, uttering a sweet, clear song; after poising high in air and repeating this song for several minutes the singer would slowly float toward earth and alight 100 yards from where he started, soon to repeat the same performance; we found a pair on the heights above Bennett, June 17th, and a few, possibly members of one family, at Circle, August 15-20. (*Bishop.*)

MUSEUM SPECIMENS.

Twenty-three; one taken at Resolution Island, Hudson Bay in July, 1885, by Dr. R. Bell; one at Cape Prince of Wales, Hudson Strait, by Mr. Payne, July, 1886; young specimen taken on Mount Queest, B.C., July 27, 1889; four at Ottawa in September, 1890, by Dr. F. A. Saunders; one at Indian Head, Assa., September 16th, 1891; two at Medicine Hat, Assa., April, 1894; two at Edmonton, Alta., April, 1897; one at Canmore, Rocky Mountains, May 29th, 1891; one at Banff, Rocky Mountains April 20th, 1891; six at Revelstoke, B.C. April, 1890; three at Huntington, B.C., September 30th, 1901, all by Mr. W. Spreadborough.

698. **Meadow Pipit.**

Anthus pratensis (LINN.) BECHST. 1807.

Received in Copenhagen by Dr. Paulsen from Greenland in 1845. (*Arct. Man.*)

699. **Red-throated Pipit.**

Anthus cervinus (PALL.) KEYS. & BLAS. 1840.

A specimen of this bird was obtained in Greenland in 1845 and makes the second record. (*Turner.*) This species was accredited to the Aleutian Islands in 1853; and Dall records a specimen which was obtained at St. Michael during the Russian telegraph expedition. (*Nelson.*)

700. **Sprague's Pipit.**

Anthus spragueii (AUD.) BAIRD. 1864.

Found breeding in great numbers on the prairie near Turtle Mountain and Mouse (Souris) River. (*Coues.*) A common summer resident on the elevated prairies in the south and west of Manitoba in 1882. In 1892 I failed to see or hear a single indi-

vidual in the country. They appear to have totally disappeared. This is unquestionably owing to the breaking up of the virgin prairie. (*Thompson-Seton.*) A common summer resident at Avenue, Manitoba; arrives about April 23rd and leaves about the middle of September. (*Norman Criddle.*) Heard numerous individuals singing in the east end of the Cypress Hills and saw one the last week in June, 1894. Undoubtedly breeding at this time. (*Spreadborough.*)

BREEDING NOTES.—I did not see the bird in the immediate vicinity of the Red River, and do not think I should have overlooked it had any individuals been breeding about Pembina, where I was every day in the field for more than a month collecting very assiduously. Passing the low range of the Pembina Mountains, however, I at once entered the prairie region, where it was breeding in great numbers, in company with Baird's and the chestnut-collared buntings. The first one I shot, July 14th, was a bird of the year, already full grown and on wing, and as I found scarcely fledged young at least a month later I judge that, like the *Eremophila*, the bird raises two broods a year. Travelling westward to and beyond the second crossing of the Mouse River, no day passed that I did not see numbers of the birds; and at some of our camps, notably that at the first crossing of the Mouse River, they were so numerous that the air seemed full of them; young ones were caught by the hand in the camp, and many might have been shot without stirring from my tent, as they hovered overhead on tremulous wings, uttering continuously their sharp querulous cry. They continued abundant through the greater part of September, in which month the renewal of the plumage is completed, and some still remained on the ground till October. Exactly when they migrate, however, and where they go to, or when they return, are equally unknown to me—not the least singular point in the bird's history is the success with which it has eluded observation during the winter months. (*Coues.*) Breeds throughout Assiniboia, but rarer in Manitoba. During my several expeditions to northwest Canada I have found over half a dozen nests of this bird. At Crescent Lake, Assa., June 15th, 1902, I found a nest containing four eggs, built in the grass on the prairie. On May 25th, 1901, a set of five eggs was collected for me by Mr. Hugh Richardson in the Qu'Appelle valley, Assiniboia, and he took another set of five eggs on May 28th at the same place, both

nests were made of dried grass and built on the ground. I have another set of four eggs taken at Pasqua, western Assiniboia, May 26th, 1893. The eggs of this bird are very rare in collections. They are something like eggs of the prairie horned lark but are smaller. Some have a pale buff ground, others greyish-white ground, minutely speckled with buff and purplish grey. The eggs can easily be told from small prairie horned lark's eggs by the fine dark brown hair lines at the largest end of the eggs. I never saw these hair lines on eggs of the horned lark, although they are often found on eggs of the American pipit and European meadow pipit. This bird is called the Missouri skylark by the settlers as it has the same habit as the European skylark of soaring high up in the air until it becomes a mere speck in the sky and it never ceases singing from the time it begins to ascend until it reaches the earth again. It is a smaller bird than the European skylark and consequently its voice is not so powerful. I have often heard both species sing and must say Sprague's pipit is not in it with the European skylark, in spite of what has been said to the contrary by American ornithologists. (*W. Raine.*)

FAMILY LI. **CINCLIDÆ.** DIPPERS.

CCXXXVII. **CINCLUS** BECHSTEIN. 1802.

701. **American Dipper.**

Cinclus mexicanus SWAINS. 1827.

Observed one on Elbow River, southwest of Calgary, July 15th, 1897; common in Michell Creek, west of Crow's Nest Pass, August 7th, 1897. (*Spreadborough.*) I met with this bird in numbers around Chief Mountain Lake, but was too late for its eggs, as the young were already on the wing. (*Coues.*) A very common species in all the mountain streams from Banff through the Rocky Mountains to the Selkirks and Gold Range. Its habit of living beside and behind waterfalls and small cascades adds a great deal of interest to a study of its habits; one nest found in the Kicking Horse River was placed on a ledge behind a small waterfall and contained young birds on August 13th, 1885; at a distance it looked like a large mass of wet moss, but on examination it proved to be a nest shaped like an oven. (*Macoun.*) Very common in the rocky creeks west of the Columbia River on the 49th parallel

in the summer of 1902; taken in Eagle River in the Gold Range, B.C., on April 5th, 1890; a few were seen in the little stream below Spence's Bridge, B.C., in May, 1889, and a few at the head of the North Arm of Burrard Inlet, B.C., in April, 1889; quite common on the Chilliwack River and the streams flowing into it in the summer of 1901; one seen near Goldstream, Vancouver Island, June 2nd, 1893; also saw one on Sooke River, on September 5th, where I heard it singing for the first time, I have heard it said they were good singers and so they are; their song resembles that of the cat-bird very much, in fact so much so that if I had not seen the bird sitting on a stone I should have put it down for that bird; they seem to do most of their singing in the fall and winter. (*Spreadborough.*) On July 16th, 1887, a nest of this species was found on the stringer of a bridge over a stream emptying into Cameron Lake, at the base of Mount Arrowsmith, Vancouver Island; it was built of moss and quite large, but very compact in the centre, but with the dome over it; owing to its position in a rapid torrent the eggs or young were not seen as we looked through a chink at the nest; as we camped at the bridge we had the bird under observation for two days. (*Macoun.*)

Three specimens of this bird were procured by Mr. Drummond near the sources of the Athabasca River, on the eastern declivity of the Rocky Mountains, between Lat. 54° and 56°. (*Richardson.*) The only specimen seen was shot at Ducks, B.C. (*Streater.*) To be found in nearly every mountain stream throughout British Columbia. (*Fannin.*) Very common along all the rivers in British Columbia. (*Lord.*) Resident at Chilliwack, but not common; common at Lake Okanagan, B.C., sings all winter; in the Cariboo district of British Columbia it is found in the neighbourhood of running water all winter. (*Brooks.*) Associated in British Columbia with all dashing streams from the mountains to the sea. (*Rhoads.*) Common up Seymour Creek, B.C. (*E. F. G. White.*) A dipper was seen and heard several times along a stream emptying into West Arm of Cumshewa Inlet, Queen Charlotte islands, 1899; several were seen in the mountains near Hope, Cook's Inlet, Alaska, and a specimen was taken there September 3rd, 1899. (*Osgood.*) Throughout Alaska, wherever clear, swift-running streams afford suitable locations, this bird is found. It winters in the neighbourhood of St. Michael, and specimens have been brought to me in midwinter when the temperature was at least

40° below zero. It seems to be very little affected by the extreme cold of our winters. (*Nelson.*) This species was obtained from several localities; it inhabits rocky creeks flowing from the mountains; it is not common but is a permanent resident and breeds here. (*Turner.*) We collected a female and a set of four fresh eggs at the falls at Glacier above Skagway, Alaska, June 8th, 1898; a single ouzel seen further down the river, June 10th, was probably the mate of the one taken. Osgood also took one at Unalaska, October 5th. (*Bishop.*)

BREEDING NOTES.—Breeds near Banff, Rocky Mountains, making a large nest of moss with a side entrance which it usually builds close to a cascade either in a tree-root or on a ledge of rock. The nest is covered with moss and kept green by the falling spray from the mountain stream. (*W. Raine.*)

MUSEUM SPECIMENS.

Eight; one taken at Kicking Horse Lake, August 13, 1890; one at Revelstoke, B.C., April 19th, 1890; one at Robson, Columbia River, B.C., June 26th, 1890; two at Spence's Bridge, B.C., in June, 1889; one on North Arm of Burrard Inlet, B.C., April 21st, 1889, and two on Tami Hy Creek, B.C., on September 7th, 1901, all by Mr. W. Spreadborough.

FAMILY LII. **TROGLODYTIDÆ.** WRENS, THRASHERS, ETC.

CCXXXVIII. **MIMUS** BOIE. 1826.

703. **Mocking Bird.**

Mimus polyglottos (LINN.) BONAP. 1838.

In McIlwraith's "Birds of Ontario," page 388, there is an interesting account of the nesting of this species in East Hamilton, Ont., in 1883. Mr. Eastwood observed the male early in the season but the female kept so close that she was seen only once. It was hoped that this pair or some of their family would return the following spring to visit their old friends in Ontario, but if they did so they have not been observed. In the "Birds of Western Ontario" mention is made of one specimen being taken by Mr. Sandys at Chatham, Ont., in 1860, which is all we know of the mocking bird in western Ontario at present. (*McIlwraith.*)

The following records of the occurrence of this bird in Canada are given by Dr. J. Dwight, Jr., in *The Auk*, Vol. XIII., p. 344: 1. One specimen seen but not captured at Strathroy, Ont., July 1st, 1880. 2. The Chatham record as given by Mr. McIlwraith. 3. The Hamilton record as given by the same. 4. A bird was wounded and caught alive at Truro, N.S., July 1st, 1889. It showed no signs of being an escaped cage bird. 5. This is a young bird taken in the fall of 1894 on Sable Island, N.S. It must have reached there owing to a severe storm.

A young male in juvenile plumage was captured on Sable Island, N.S., September 5th, 1902, hopping about a woodpile. (*James Bouteillier.*)

CCXXXIX. **GALEOSOPTES** CABANIS. 1850.

704. **Catbird.**

Galeoscoptes carolinensis (LINN.) CAB. 1850.

A rather common summer resident at Halifax, N.S. (*Downs.*) Apparently rare on Prince Edward Island; a few specimens were seen in July, 1888, at Stewart's mill. (*Macoun.*) A rare and irregular summer resident at St. John, N.B. (*Chamberlain.*) Summer resident along St. John River, N.B., and tolerably common. (*W. H. Moore.*)

Common summer resident at Montreal. Breeds in the city and in Mount Royal park. Nests with eggs found from May 29th to July 19th. (*Windle.*) A common summer resident in eastern Quebec. Taken at St. Foy. (*Dionne.*) A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common everywhere in eastern Ontario; sometimes remaining until the end of September. (*Rev. C. J. Young.*) An abundant summer resident in Parry Sound and Muskoka districts; breeding usually on the edge of the forest or in gardens of the settlers. (*J. H. Fleming.*) Very common summer resident at Guelph, Ont. Arrives about May 10th and leaves about September 25th. (*A. B. Klugh.*) A very common summer resident at Penetanguishene, Ont.; breeds very frequently in wild rose bushes in meadow-lands. (*A. F. Young.*)

The catbird was found to be one of the common birds of the Red River region, where it was breeding in June in situations similar

to those it selects in the east. I traced it westward to Turtle Mountain on the 49th parallel, but did not find it in the Rocky Mountains. (*Coues.*) An abundant summer resident of low thickets in Manitoba, especially to the north. (*Thompson-Seton.*) Common summer resident at Avenue, Manitoba; arrives about May 17th and leaves about September 18th. (*Norman Criddle.*) This is a very common summer resident at Indian Head, Assa., it was first seen June 2nd, 1892, and became common in a few days, breeds in great numbers; first seen at Medicine Hat, Assa., on May 17th, 1894, common by the 20th; abundant in all thickets at Medicine Hat, Crane Lake, along Swift Current Creek, and in the east end of the Cypress Hills in June, 1894; this bird was common wherever there was brush in Wood Mountain and on Rocky Creek to the Boundary; 4 nests were found on Frenchman's River, two in willow thickets and two in wolf willow (*Elæagnus argentea*); it was a common species in all the ravines in the Cypress Hills and in Milk River valley and wherever there was brush in southern Alberta; first seen at Edmonton, Alta., May 25th, 1897, heard a number of them singing next day, they soon became common and began to breed; common from Edmonton north to the McLeod River in June, 1898; heard in the bushes at Deer Park, Columbia River, B.C., June 6th, 1890; later in the month they were found breeding in the valley of Pass Creek, near Robson; quite common at Trail and Cascade, and in low bushes along small streams near the 49th parallel in the summer of 1902; a common species at Kamloops and Spence's Bridge, B.C., building in the thickets along the Thompson River in June, 1889; only one individual seen at Chilliwack, B.C., in June, 1901. (*Spreadborough.*) Uncommon at Prince Albert, Sask., several times heard in the thickets but only once seen. (*Coubeaux.*) This species was not observed further north than Lat. 54°. It was abundant around Carlton on the Saskatchewan and bred in the willow thickets. (*Richardson.*) Very common summer resident of the interior of B.C. reaching the coast in reduced numbers. (*Streator.*) Common east and west of the Coast Range; rare on Vancouver Island; summer resident. (*Fannin.*) Not abundant anywhere, but very local in its distribution in British Columbia. (*Rhoads.*) Tolerably common summer resident at Chilliwack, B.C.; and breeding as far north up the Fraser River as Soda Creek, B.C. (*Brooks.*)

BREEDING NOTES.—Nests, in bushes, vines, and trees of every kind, never high up, made of branches, dry leaves, bits of paper, bark and grasses, always lined with black rootlets. At Ottawa the catbird begins to lay in the latter part of May. (*Garneau.*) Nest, built in a tree at Ottawa from 5 to 20 feet from the ground, composed of twigs, leaves, bark, rootlets and bits of twine, lined with black rootlets. Eggs 4 to 5, dark bluish green. (*G.R.White.*) Breeds in June at Scotch Lake, N.B.; the nest is a roughly constructed affair of weed-stalks, grasses and other material, lined with rootlets and resembles a bunch of drift stuff lodged in a bush. The female keeps good watch over the nest and the male sings at some distance away to attract enemies to himself. (*W. H. Moore.*) This species builds its nest on the prairies in the densest thickets and is difficult to find; nest in willows and *Eleagnus argentea*. The base consists of leaves of thistles and *Artemisia*, then of bark of dead willow, lined on the inside with small black root fibres; three nests of the same character were taken on Frenchman's River, Assa., June 22nd, 1895. (*Macoun.*)

MUSEUM SPECIMENS.

Eleven; two taken at Ottawa, May, 1888, by the writer; one at London, Ont., July 2nd, 1880, by Mr. W. E. Saunders; one at Indian Head, Assa., June 2nd, 1892, two at Medicine Hat, Assa., in May, 1894, one at Edmonton, Alta., May 25th, 1897, one at Robson, Columbia River, B.C., June 21st, 1890, one at Trail, B.C., June 5, 1902, and two at Spence's Bridge, B.C., in June, 1889, all by Mr. W. Spreadborough.

One set of four eggs taken at Ottawa, and presented to the museum by Dr. James Fletcher.

CCXL. **TOXOSTOMA** WAGLER. 1831.705. **Brown Thrasher.**

Toxostoma rufum (LINN.) CAB. 1847.

A common summer resident around Montreal; observed in the spring of the year, April 30th, and a nest found on the spur of Mount Royal, containing three eggs, May 24th, 1890; not observed in the autumn, and think it must be an early migrant in the fall. (*Windle.*) A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Common in suitable places

in eastern Ontario. A common breeding bird on Wolfe Island, near Kingston, Ont. (*Rev. C. J. Young.*) Mr. Kay records one from Port Sydney, Muskoka, taken on May 7th, 1890; I am sure it occurs at Emsdale, Parry Sound, but have not been able to take one. (*J. H. Fleming.*) An uncommon summer resident at Guelph, Ont. (*A. B. Klugh.*) A common summer resident in south-western Ontario, but noted sparingly in the north; nests are usually made on the ground, often in a brush heap and sometimes in shrubs. Eggs three or four, rarely five; two broods are often raised in a season near London, Ont. (*W. E. Saunders.*) A common summer resident at Penetanguishene, Ont.; have found their nests situated very near the ground in rose bushes. (*A. F. Young.*)

Observed at Pembina which appears to be near the northern limit of the distribution of this species; a nest containing four eggs was found at Pembina late in June. (*Coues.*) A common summer resident of partly open country more especially in the southern sections of Manitoba. (*Thompson-Seton.*) A common summer resident at Avenue, Manitoba; arrives about May 10th and leaves about the middle of September. (*Norman Criddle.*) First seen at Medicine Hat, Assa., May 12th, 1894, later they came in numbers and by May 22nd were very common, in bushes in the creek and river valleys, May 30th, found a nest with four fresh eggs under a log in a heap of dry brush, nest composed of sticks, lined with dry grass, other nests were taken low down in the brush, in close thickets; one pair was seen late in June in brush along Swift Current Creek in the east end of Cypress Hills; observed in thickets at Old Wives' Creek, at Wood Mountain and in the Milk River valley and on Milk River Ridge in southern Alberta in 1895; observed one individual at Moose Mountain, almost at timber line, about 40 miles southwest of Calgary, July 1st 1897; several seen further south on July 15th, near the source of Elbow River. (*Spreadborough.*) This species was only seen at Carlton House on the banks of the Saskatchewan where it breeds. (*Richardson.*)

BREEDING NOTES.—A nest built in a small fir six feet from the ground and containing two young birds and three hatched eggs discovered near Ottawa on June 7th, 1903. It was a large nest of branches, ten inches in diameter and lined with bark, grass and leaves. (*Garneau.*) A nest found near Beechwood cemetery, Ottawa, was built in a brier patch; the nest was a large bulky structure of twigs, weed-stalks, dead leaves, strips of bark and

fibrous roots, lined with fine grass; the nest contained four greenish white eggs marked with reddish brown dots. (*G. R. White.*)

MUSEUM SPECIMENS.

Six; one purchased with the Holman collection in 1885; one at Ottawa, May 16th, 1888, by the writer and another taken August 30th, 1890, by Dr. F. A. Saunders; one at Old Wives' Creek, Assa., May 23rd, 1895, and two at Medicine Hat, Assa., May, 1894, all by Mr. W. Spreadborough.

Three sets of four eggs each; one set taken at Aylmer, Que., June 9th, 1898, by Mr. F. K. Whiteaves; one taken at Medicine Hat, Assa., May 3rd, 1894, by Prof. Macoun; nest under a bush; one taken on Point Pelee, Lake Erie, May 31st, 1884, by Mr. W. E. Saunders.

CCXLI. **SALPINCTES** CABANIS, 1847.715. **Rock Wren.**

Salpinctes obsoletus (SAY) CAB. 1847.

One male of this species was seen in the east end of the Cypress Hills, Assa., June 26th, 1894; it was also taken at Calgary, Alta., in August, 1885; a pair of these birds was noticed on June 14th, 1895, in the "bad lands," on Rocky Creek, south of Wood Mountain; the species was common along Milk River, and breeding in numbers at Castellated Rocks, Alta., in July, 1895; saw one individual at Prairie Creek, northwest of Edmonton, Alta., June 29th, 1898; rather common along the railway at Spence's Bridge, B.C., in May, 1889, it was evidently breeding. (*Spreadborough.*) Migrant on Vancouver Island and at Sumas. (*Lord.*) Rather common about Ashcroft; breeds. (*Streator.*) Common east of the Coast Range; one specimen taken by me at Burrard Inlet in 1884. (*Fannin.*) Only once seen and shot, in November, 1889, at Chilliwack. (*Brooks.*) Found about Ashcroft and northward to C che Creek, B.C.; also at Kamloops where one was nesting in a "section" house, ten feet from the railroad tracks. (*Rhoads.*)

MUSEUM SPECIMENS.

Two; one taken at the "bad lands" south of Wood Mountain, Assa., June 14th, 1895, and one taken at Spence's Bridge, B.C., June 10th, 1889, both by Mr. W. Spreadborough.

CCXLII. **THRYOTHORUS** VIEILLOT. 1816.718. **Carolina Wren.**

Thryothorus ludovicianus (LATH.) BONAP. 1838.

One specimen of this species lived for a month or two in the winter of 1890-91 in the town of Forest, Ont., and was eventually shot in February, 1891, by Mr. Montague Smith, of that place, and is now in the possession of Mr. S. H. Smith of Strathroy, Ont. (*W. E. Saunders.*)

CCXLIII. **THRYOMANES** SCLATER. 1861.719. **Bewick's Wren.**

Thryomanes bewickii (AUD.) RIDGW. 1877.

One specimen only recorded, taken by myself on December 13th, 1898, in a swampy area full of brush and fallen trees, with a few shrubs near Appin, Ont. There was scarcely a foot of light snow on the ground, and the day was clear but not very cold. The bird was feeding and working along through upturned roots and piles of brush. (*W. E. Saunders.*)

719a. **Vigor's Wren.**

Thryomanes bewickii calophonus OBERHOLSER. 1899.

Rather rare at Agassiz, B.C., in May, 1889; seen at Chilliwack and Huntington, B.C., in the summer of 1901; a summer resident on Vancouver Island, found breeding on April 22nd, 1893; I believe a few stay all winter as I have observed them in mid-winter near Victoria. (*Spreadborough.*) Migrant on Vancouver Island and at Sumas. (*Lord.*) More common on the coast than in the interior. (*Streator.*) A summer resident, chiefly west of the Coast Range; breeds in Beacon Hill park, Victoria, Vancouver Island, (*Fannin.*) Abundant resident at Chilliwack. (*Brooks.*) Abundant in southern British Columbia west of the Coast Range. (*Rhoads.*) Pacific slope, from Oregon north to southern Vancouver Island, the valley of Fraser River and slightly further along the mainland coast. (*Oberholser.*)

MUSEUM SPECIMENS.

Nine; one taken at Agassiz, B.C., May 15th, 1889; one at Vancouver, B.C., April 14th, 1889; three at Chilliwack, B.C., June and

October, 1901; one at Huntington, B.C., September 24th, 1901; three at Victoria, Vancouver Island, in May, 1893, all by Mr. W. Spreadborough.

CCXLIV. **TROGLODYTES** VIEILLOT. 1807.

721. **House Wren.**

Troglodytes aëdon VIEILL. 1807.

One specimen taken on Sable Island, N.S., May 4th, 1902. (*James Bouteillier*.) A scarce summer resident around Montreal; seen feeding their young within the city in 1890 and 1891. (*Wintle*.) Rare in eastern Quebec. I captured a female of this species in Quebec city in the spring of 1880. (*Dionne*.) An abundant summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Common in eastern Ontario. I have seen this bird frequently in Leeds Co.; but nowhere so common as in central and northern Frontenac, there it is quite numerous and sometimes makes its nest in a hole in a fence-rail. (*Rev. C. J. Young*.) Common summer resident in Parry Sound and Muskoka districts. Breeds in hollow fence-posts, stumps and under the roofs of houses. (*J. H. Fleming*.) Common along the Parry Sound Railway in Algonquin Park, Ont.; nesting in hollow stumps. (*Spreadborough*.) Common in town and country around London, Ont. Average date of arrival in 22 years, May 1st. Average date of departure in 9 years, October 8th. Snake-skins are generally a feature in the lining of country nests. (*W. E. Saunders*.) Common summer resident at Guelph, Ont. (*A. B. Klugh*.) An abundant summer resident at Penetanguishene, Ont. (*A. F. Young*.)

BREEDING NOTES.—This bird nests in holes everywhere they exist. Nests have been found in fence-posts, trees, stumps and buildings. The entry is filled up with twigs and the nest made of bark, rootlets and grass, lined with feathers and hairs. From four to seven eggs are in the set, which is laid in May, June or July, at Ottawa and at Lake Nominique, 100 miles north of it. (*Garneau*.) Breeding commonly in the vicinity of Toronto. A pair have several times built their nest in a paint can that was hung up on a nail in a shed at Kew Beach, Toronto. (*W. Raine*.) Builds at Ottawa in trees, boxes or old hats nailed up on the side of a shed or barn. The nest is composed of twigs, leaves and

hair, lined with feathers. Eggs seven to eight, white, thickly spotted with reddish-brown. (*G. R. White.*)

MUSEUM SPECIMENS.

One taken at Ottawa, May 15th, 1888, by the writer.

One set of six eggs taken at Ottawa in June, 1897, and presented by Mr. Fred Whiteaves.

721a. **Parkman's Wren.**

Troglodytes aëdon parkmanii (AUD.) COUES. 1872.

Occasionally seen at Kamloops, B. C., in June, 1889. Rather common at Heney, Hammond and Agassiz, along the Fraser River, B.C., in May, 1889, they were around the barns and houses like the house wren; common at Chilliwack, B.C., in the spring of 1901; first seen on Vancouver Island April 27th, 1893; it is a tolerably common summer resident throughout the island, in May the woods everywhere were vocal with its song. (*Spreadborough.*) Rather common in British Columbia. (*Lord.*) Common summer resident everywhere; breeds. (*Streator.*) A summer resident east and west of the Coast Range. (*Fannin.*) Common summer resident at Chilliwack. (*Brooks.*) I never found this wren above the 2,000 feet limit. It is not as abundant or evenly distributed in the interior as coast-wise. (*Rhoads.*)

MUSEUM SPECIMENS.

Seven; three taken at Agassiz, B.C., May, 1889, two at Port Heney on the Fraser River, B.C., May 1st, 1889, two at Victoria, Vancouver Island, May, 1893, all by Mr. W. Spreadborough.

721b. **Western House Wren.**

Troglodytes aëdon aztecus BAIRD. 1864.

Observed as far west on the 49th parallel as the confines of the Missouri Coteau. The westernmost specimens, as well as those from the immediate valley of the Red River appear to be typical *aëdon*. On the Red River, in June, the species was breeding very abundantly in the neighbourhood of the fort and town of Pembina. (*Coues.*) An abundant summer resident in partly wooded localities. Although this bird usually nests in a hollow stump it is not averse to a different situation, provided only that it be a hole, and deep enough and narrow enough to exclude any but

the owner. If the hole chance to be in the least a loose fit, his first care is to blockade the doorway with the largest twigs he can carry until he has reduced it to his own idea of snugness; and I learned to accept it as the infallible doorplate of a wren's homestead when a bundle of twigs was seen projecting from a cranny in some decrepit looking stump, hollow rail or a knot-hole in an outhouse. (*Thompson-Seton*.) A common summer resident at Avenue, Manitoba; arrives about September 20th. (*Norman Criddle*.) First seen at Medicine Hat, Assa., May 15th, 1894, common by the 20th; abundant at Crane Lake, Skull Creek and east end of Cypress Hills in June, breeding in holes in poplar trees and an occasional telegraph pole at Crane Lake; this species was found breeding in holes in trees at Old Wives' Lakes, Assa., and at Wood Mountain, in June, 1895; later, another nest was taken in a hole in a clay bank along Frenchman's River, Assa.; not rare in the wooded ravines on the south side of the Cypress Hills; a nest was taken built in a barn swallow's nest on Sucker Creek, which is the source of Frenchman's River; it was common on Spur Creek, Milk River, Milk River Ridge, St. Mary's River and Lee's Creek, southern Alberta; common from the mouth of Lesser Slave River to Peace River Landing; breeding in holes in trees and in the sandstone cliffs and cut banks of Peace River, Lat. $56^{\circ} 15'$ in June, 1903; observed from Edmonton to Athabasca Pass in June, 1898; first seen at Edmonton, Alta., May 6th, 1897; on June 8th found a nest with seven eggs in a hole in a birch stub about six feet from the ground, nest built of sticks and lined with feathers, eggs quite fresh; on the 11th took another nest in a poplar stub about four feet from the ground, nest same as before; common south of Calgary in the foothills in June and July; rare at Banff, Rocky Mountains, and breeding in holes in trees in June, 1891; shot at Revelstoke, B.C., May 3rd, 1890; a few pairs were breeding at Robson, B.C.; a nest was taken out of a hollow tree on Pass Creek, 700 feet above the Columbia River, June 20th, 1890; observed a few at Trail, on the Columbia River, near the 49th parallel; breeding in holes, in houses and trees in the summer of 1902. (*Spreadborough*.) One specimen of this wren was procured by Mr. Drummond at the foot of the Rocky Mountains, but no others were seen by any of us to the eastward. (*Richardson*.) Frequently seen at Prince Albert, Sask., in summer. (*Coubeaux*.)

BREEDING NOTES.—Quite common throughout the prairie region, breeding in holes in trees or in clay banks of rivers. At Walsh's ranch, Old Wives' Creek, Assa., they were nesting in holes in ash-leaved maple. At Wood Mountain Post, Assa., nests were taken in clay banks; on June 21st, 1895, a nest was taken on Frenchman's River, Assa., in a clay bank. On the outside it was built of willow twigs and roots and within lined with large feathers and hair. (*Macoun.*)

MUSEUM SPECIMENS.

Eleven; one taken at Indian Head, Assa., June 6th, 1892, two at Old Wives' Creek, Assa., May, 1895, three at Medicine Hat, Assa., May, 1894, two at Edmonton, Alta., June, 1897, one at Canmore, Rocky Mountains, May 24th, 1891; one at Cascade, B.C., June 12th, 1902, all by Mr. W. Spreadborough.

Four sets of eggs; one of six taken at Edmonton, Alta., June 11th, 1897, and another of seven taken June 8th, at the same place, both by Mr. W. Spreadborough; one of five taken in the Cypress Hills, Assa., July 1st, 1895, and another of five at Medicine Hat, Assa., June 2nd, 1894, by Prof. Macoun.

CCXLV. **OLBIORCHILUS** OBERHOLSER. 1902.

722. **Winter Wren.**

Olbiorchilus hiemalis (VIEILL.) OBERH. 1902.

Audubon, Vol. II., p. 129 found this species in southern Labrador, July 20th, 1833. (*Packard.*) A common and abundant resident throughout the year in Newfoundland. (*Reeks.*) Not very common at Halifax; a few breed in Nova Scotia. (*Downs.*) Hunter's River, Prince Edward Island, July 2nd, 1888. (*Macoun.*) Tolerably common in damp woods along brooks, or sometimes in more open localities in Prince Edward Island. (*Dwight.*) A common summer resident at St. John, N.B. (*Chamberlain.*) Common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Locally abundant in the Restigouche valley, N.B. (*Brittain & Cox.*) Tolerably common on the Magdalen Islands. (*Bishop.*) Not rare at Lake Mistassini, northern Quebec. (*J. M. Macoun.*) A common but transient visitant around Montreal; observed in both spring and autumn. (*Wintle.*) Common in many parts of eastern Quebec. Taken at Charlesbourg. (*Dionne.*)

A moderately common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Not uncommon in Leeds Co., Ont. There is a large woodland tract south of Lansdowne, Ont., and not far from the St. Lawrence where they are quite common and breed; I found a nest in 1883, early in May, and have heard several singing there together in April; I noticed one specimen on the Magdalen Islands. (*Rev. C. J. Young*.) A common species and breeds in Parry Sound and Muskoka districts, Ont. (*J. H. Fleming*.) Common along Moose River to Moose Factory; none seen further north; common everywhere in thick dark woods in Algonquin Park, Ont. (*Spreadborough*.) On March 17th, 1894, a male of this species was taken at Toronto and I have every reason to think that he had wintered here. (*J. Hughes-Samuel*.) An uncommon summer resident in the deep cedar swamps around London, Ont. Much less numerous than formerly. (*W. E. Saunders*.) Common summer resident at Guelph, Ont.; arrives about April 4th and leaves about October 6th. (*A. B. Klugh*.)

Summer resident in the thick woods in eastern Manitoba; has been seen as far west as Portage la Prairie. (*Thompson-Seton*.) A rare summer visitor at Avenue, Manitoba. (*Norman Criddle*.)

BREEDING NOTES.—This species breeds in June at Scotch Lake, N.B. The nest is well hidden in upturned roots of overturned trees. Eight eggs are generally laid. (*W. H. Moore*.) In the woods near Lake Nomingue, about 100 miles north of Ottawa two nests were found imbedded in green moss on the ground, and another on the side of a fallen tree. The entrances were about an inch in diameter and the interiors were empty spheres lined with a few grasses. (*Garneau*.) I have found this species breeding at Long Branch, west of Toronto, at Rice Lake and near Port Hope and at Waterloo, Ont.; a favorite nesting place is in the root of some fallen tree; it lays six to seven eggs, finely spotted at the largest end with dark brown. (*W. Raine*.) There were a few years ago some large woods in the front of the township of Lansdowne, Ont.; a creek ran through them, and here the winter wren was quite common and bred; I once found its nest, which was built in a cavity of a stump, about a foot from the ground; it was early in May before the bird laid her eggs, but at that time the nest was really completed, being a large globular ball of moss with a small hole near the top. (*Rev. C. J. Young*.)

This season, however, I saw one on January 23rd (1894) in a woodland dell, which it frequents during the summer, and near where I had found two nests. On March 30th, I again heard it in the same place, and from that date they became more common. Toward the centre of our sugar bush, and not far from the "camp fire," the ground is rather low, and here most of the larger timber was uprooted by that terrible windstorm of April 20th, 1893; having noticed the winter wrens frequently during April, in this bush, I expected that they were going to nest here again, and a search on May 2nd, was rewarded with the discovery of a nearly completed nest in one of the highest roots. I think it was four days later that I again visited it, when it contained four eggs; on the 9th, I flushed the bird from her nest, which I carefully removed from its place in the soil and fine roots, and found the number of eggs to be six, which were apparently pure white, but if held up to a strong light, after being blown, the minute markings, with which the larger part of the surface is dotted, became visible; the site of the nest was about six feet above the ground, or rather water, which filled the space out of which the root had been torn; the nest resembled a round ball of moss with an entrance hole on the outer side; it measured over twelve inches in circumference; the exterior was almost wholly composed of a species of moss, common on the lower parts of trees and logs in low grounds; around the entrance are a number of the stalks of hemlock leaves, while the inside is nearly lined with fine vegetable matter, hair and feathers. This set was completed on the 8th of May and is the earliest date I have ever taken their eggs. Of the seven nests collected in this vicinity four contained six eggs each, and three five; all of these were built in the upturned roots of fallen trees, which is evidently their favourite nesting place, though it certainly builds in other situations. (*Wm. L. Kells.*)

MUSEUM SPECIMENS.

One taken at Ottawa, May 13th, 1890, by Dr. F. A. Saunders.

One set of five eggs taken near Toronto, Ont., June 2nd, 1894, and presented by Mr. W. Raine.

722a. **Western Winter Wren.**

Olbiorchilus hiemalis pacificus (BAIRD) OBERH. 1901.

Common in thick spruce woods from Lesser Slave Lake to Peace River Landing, Lat. 56° 15', in June, 1903; observed one on

Moose Mountain, southwest of Calgary, June 30th, 1897, another observed in Crow's Nest Pass, July 28th, 1897; first seen at Revelstoke, on the Columbia, April 10th, 1890, later they became more common and nested in the thick woods; quite common in thick woods at Trail on the 49th parallel in the summer of 1902; three specimens seen at Penticton, B.C., in April, 1903; common in the woods around Burrard Inlet and Agassiz, on the Fraser River, B.C., April, 1889; abundant along the Chilliwack River, in the mountains near the 49th parallel; also observed a few at Huntington, B.C., nearer the coast in 1901; a common resident throughout Vancouver Island, preferring thick bush. (*Spreadborough.*) Rather common, British Columbia. (*Lord.*) Confined principally to the coast region; breeds. (*Streator.*) A resident chiefly of the coast; abundant. (*Fannin.*) Common resident at Chilliwack. Tolerably common throughout the winter at Lake Okanagan, B.C. (*Brooks.*) Abundant on the coast of British Columbia. Two moulting birds from Selkirk Mountains near Nelson, B.C., are even darker than skins from Puget Sound. (*Rhoads.*) From Sitka, Bischoff sent four specimens during his collecting there, and others have been collected at Kadiak. (*Nelson.*) Tolerably common in the more open forests at Sitka, Alaska, where there is much recently fallen timber. Especially numerous on St. Lazaria Island where their clear sprightly songs constantly uttered, seemed scarcely in accord with the harsh cries of the thousands of sea-fowl. (*Ginnell.*) We noticed a few at Glacier above Skagway, Alaska, June 4th to 10th, and I took a male there June 6th. (*Bishop.*) Very common on all the Queen Charlotte Islands, it is practically the only bird to be found in the deep forest away from the sea-shore. On the occasions when we attempted to penetrate the labyrinth of undergrowth towards the interior of the islands, we were always greeted, even in the darkest places, by the tiny wren's bright bubbling song or scolding chatter. It is always in motion and utterly regardless of the weather. During continuous rains while we were camped at the head of Cumshewa Inlet, a wren would appear every few hours near the front of the tent and, after scolding us for a while, move on through the wet brush cheerfully and oblivious of the descending rain. I flushed a bird from an empty nest in the upturned roots of a large fallen cedar, June 15th. I visited this nest frequently and flushed the bird from it each time, but up to June 28th it still contained no eggs. Four speci-

mens only were collected, two adults and one young from Cumshewa Inlet and one young from Skidegate. These do not differ from specimens from the adjacent mainland of British Columbia and from Puget Sound near the type locality of *Anorthura h. pacificus*. (Osgood) Common at Stanley Park, Seymour Creek, Mission City and Chilliwack, B.C., in 1894. (E. F. G. White.)

MUSEUM SPECIMENS.

Ten; two taken at Revelstoke, B.C., April, 1890, two at Hastings, Burrard Inlet, B.C., in April, 1889, four at Chilliwack, B.C., June, 1901, two at Victoria, Vancouver Island, April, 1893, all by Mr. W. Spreadborough.

723. **Alaskan Wren.**

Olbiorchilus alasensis (BAIRD) OBERH. 1902.

The type of this wren was obtained by Mr. Dall at St. George Island, Alaska, and is a young bird. It is an abundant resident on the Near Islands; it is found throughout the Aleutian Islands and is a resident wherever found. (Nelson.) This pleasing little bird is found in abundance on all the Aleutian chain proper; it was also observed at Kadiak Island, Unga Island, and on the mainland at Belkowsky; it never goes to the interior of even a small sized island, but remains strictly along the cliffs, bluffs, and other high places forming the seashores of the islands. (Turner.) Not uncommon on St. George Island in Behring Sea, Alaska; a number of specimens were taken in June, 1897. (J. M. Macoun.)

MUSEUM SPECIMENS.

Three; taken June 28th, 1897, on St. George Island, one of the Pribilof group, by Mr. J. M. Macoun.

723.1. **Aleutian Wren.**

Olbiorchilus meligerus OBERHOLSER. 1902.

Attu Island, Aleutian Islands, Alaska, June 4th, 1894. Range, the westernmost islands of the Aleutian group. (Oberholser in *The Auk*, Vol. XVII., 1900.)

CCXLVI. **CISTOTHORUS** CABANIS. 1850.

724. **Short-billed Marsh Wren.**

Cistothorus stellaris (LICHT.) CAB. 1850.

A male of this species was seen at London, Ont., in 1898, and several old nests were found but no females were seen. (W. E.

Saunders.) I have two specimens of this bird taken by Mr. C. W. Nash at Toronto. (*J. H. Fleming.*) On August 29th, 1891, I found and secured an adult female of this species in an old field north of Toronto, the bird was a long distance from any marsh or water; on June 7th, 1895, I captured an adult male in a wet meadow east of Toronto; there were no rushes near this place, but the grass was very rank. (*C. W. Nash in The Auk, Vol. XIII., p. 347.*) A male was taken in a wet meadow at Norway House, June 20th; from its actions it probably had a nest in the vicinity, but despite a careful search none was found. (*E. A. Prebles.*)

I found the birds to be rather plentiful along the Red River, in low oozy ground, overgrown with scrub willows, and also in the reedy sloughs of the prairie. They were undoubtedly breeding here, though no nests were secured. My specimens were secured at Pembina in June. (*Cones.*) A summer resident of erratic distribution in Manitoba; soon after the 1st of May, every little sedge pool and slough in the Assiniboine valley, from Carberry to Pelly, is vocal with the merry chatter of this bird. The nest is a globular structure, and judging by the one or two cases I have observed is generally placed in a grass tuft; if there is any difference I think the short-billed selects a drier situation for his home than the long-billed marsh wren. (*Thompson-Seton.*) A tolerably common summer resident at Aweme, Manitoba. Arrives about the last of April. (*Norman Criddle.*) A few specimens seen at lakes ten miles south of Indian Head, Assa., in May 1892. (*Spreadborough.*)

CCXLVII. **TELMATODYTES** CABANIS. 1850.

725. **Long-billed Marsh Wren.**

Telmatodytes palustris dissæptus (BANGS) THE AUK, Vol. XIX., p. 352. 1902.

One procured at Godthaab, Greenland, in May, 1823. (*Arct. Man.*) The first specimen taken in the province of New Brunswick was near St. John, October 3rd, 1895. Nothing more was noted of this species until September 23rd, 1900, when two were heard at Mud Lake, 15 miles east of Scotch Lake. (*W. H. Moore.*) A scarce summer resident at Montreal. The late Mr. Caulfield observed this species, May 24th, in some reeds around a pond at Côte St. Paul, and Mr. W. W. Dunlop has seen them on Nun's

Island, above the Victoria Bridge. I found a pair nesting in the bullrushes and rank herbage at the mouth of Laprairie. (*Wintle*.)

A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) One of the commonest birds in eastern Ontario about the St. Lawrence below Kingston. Sometimes remaining until the middle of September. (*Rev. C. J. Young*.) A common resident of marshes in eastern Manitoba. Mr. Hunter has noticed it from Selkirk to Souris, particularly at Shoal Lake, north of Winnipeg, where they appear to be very common. I have never seen it at Carberry nor on the upper Assiniboine. (*Thompson-Seton*.) A tolerably common summer resident at Aweme, Manitoba. (*Norman Criddle*.) Apparently a rare spring migrant at Indian Head, Assa. Only one individual seen June 15th, 1892. (*Spreadborough*.) Three specimens of this species were secured at Chemawawin near the Grand Forks of the Saskatchewan. (*Nutting*.)

BREEDING NOTES.—Builds a large bulky nest in reeds in marshes around Ottawa. The nest is made of tops of grasses and reeds worked into a ball with a hole in one side, lined with fine grass. Eggs, 6 to 8, of a rich dark chocolate or so spotted with chocolate as to make the ground colour appear to be chocolate. (*G. R. White*.) Breeds abundantly in the marsh behind my house at Kew Beach, Toronto. (*W. Raine*.)

MUSEUM SPECIMENS.

Two; both taken at Ottawa, one by the writer in May, 1888, and the other by Dr F. A. Saunders, July 9th, 1890.

One set of six eggs taken in Toronto marsh in June, 1886, and presented by Mr. W. Raine.

725a. **Tulé Wren.**

Telmatodytes palustris paludicola (BAIRD) RIDGW. 1877.

Rather common in Burnaby Lake about three miles from New Westminster, B.C., in April, 1889. There were many nests, both old and new, built securely to bullrushes (*Scirpus lacustris*) standing in the water. All the nests were oven-shaped and evidently the lake was the home of a large colony; in the summer of 1901 two individuals were seen in a peat bog at Huntington, B.C., on the 49th parallel; first seen at Penticton, south of Lake Okana-

gan, B.C., April 23rd, 1903; breeding in the district, but not common. (*Spreadborough*.)

MUSEUM SPECIMENS.

Three; taken at Burnaby Lake, near Vancouver, B.C., April 24th, 1889, by Mr. W. Spreadborough.

One set of four eggs taken at Burnaby Lake, near Vancouver, B.C., April 19th, 1889, by Mr. J. M. Macoun.

725c. **Western Marsh Wren.**

Telmatoodytes palustris plesius (OBERHOLSER) A.O.U. COMMITTEE. 1903.

North to British Columbia and Alberta east of the Rocky Mountains. A fall specimen from South Edmonton, Alberta, and one from Fort Brown, Texas, are much brighter tawny above than any of the others examined, but are both very much paler than *palustris*. A specimen from Cariboo road, British Columbia, is not perfectly typical of the present subspecies, but somewhat approaches *paludicola* in the generally duller and rather darker shades of the upper parts. (*Oberholser* in *The Auk*, Vol. XIV., pp. 188-196.)

Found in the interior of British Columbia, only breeding about the muddy margins of mountain lakes. (*Streator*.) I have found this bird only east of the Coast Range where it was very abundant around the lakes along the Cariboo road. (*Fannin*.) A few stay all winter at Lake Okanagan, B.C. (*Brooks*.) Observed a number of individuals in a reedy pond, at Edmonton, Alta., May 10th, 1897, I think that they arrived much earlier; common in tall rushes around all the ponds and lakes, May 13th, on May 27th examined about 30 nests and obtained only one egg, on June 10th found three nests, one with young ones and two with eggs nearly fresh, nests fastened to the rushes (*Scirpus lacustris*), out in the water and made of grass; found a pair breeding at Peace River Landing, Lat. 56° 15', July 1st, 1903. (*Spreadborough*.)

This species was not observed till we reached the Rocky Mountains when a few were seen on marshy ground near Chief Mountain (Waterton) Lake. (*Cones*.) I place this record here where it evidently belongs. (*Macoun*.) Mr. Drummond killed specimens of this wren on the eastern declivity of the Rocky Mountains on

the 55th parallel. (*Richardson.*) Breeding over the lake country east of the Coast Range; I found it abundant at Lac la Hache, B.C.; it must range much farther north than this, probably to Stewart's Lake, Lat. 54°. (*Rhoads.*)

MUSEUM SPECIMENS.

Five; four taken at Edmonton, Alta., in May, 1897; one taken at Peace River Landing, July 1st, 1903.

Two sets of eggs, both taken at Edmonton, Alta., one of six and another of seven eggs respectively, June 10th, 1897, all by Mr. W. Spreadborough.

FAMILY LIII. **CERTHIIDÆ**. CREEPERS.CCXLVIII. **CERTHIA** LINNÆUS. 1758.726. **Brown Creeper.**

Certhia familiaris americana (BONAP.) RIDGW. 1873.

Apparently a summer migrant in Newfoundland; but may not migrate. (*Reeks.*) A rather common resident at Halifax, N.S. (*Downs.*) A rather rare summer resident at St. John, N.B. (*Chamberlain.*) A scarce permanent resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) A common transient visitant around Montreal; observed nearly all the year; a few possibly breed and winter there. (*Wintle.*) This bird is frequently met with in eastern Quebec; taken at Beauport. (*Dionne.*)

A common winter migrant around Ottawa. (*Ottawa Naturalist*, Vol. V.) I have frequently noticed this bird in the fall and early spring, though but seldom in the summer; neither have I observed it breeding in eastern Ontario, though it probably does. (*Rev. C. J. Young.*) A very common resident in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Not very common in Algonquin Park, Ont.; have not seen its nest. (*Spreadborough.*) A common migrant, but a rare summer resident around London, Ont. (*W. E. Saunders.*) Common resident at Guelph, Ont.; more abundant in autumn, winter and spring than in summer. (*A. B. Klugh.*) A common resident at Penetanguishene, Ont. (*A. F. Young.*) A very rare summer resident of woodlands in eastern Manitoba (*Thompson-Seton.*)

BREEDING NOTES.—Have taken several nests at Ottawa, always in deserted woodpecker's holes. The nests are made of grasses

and lichens, lined with hair and feathers; eggs 6, white with sparingly distributed reddish brown dots. (*G. R. White.*) Breeds in Welland county, Ont., where Mr. Reinecke has taken its nest and eggs; it is more plentiful in Muskoka and in northern Ontario, where it makes its nest of twigs and bark in a decayed tree-stub under the loose bark and lays 5 to 6 white eggs, heavily spotted with reddish brown, chiefly at the largest end. (*W. Raine.*)

MUSEUM SPECIMENS.

Four; one purchased with the Holman collection in 1885; one taken at Ottawa, September 10th, 1890, by Dr. F. A. Saunders; one taken at London, Ont., November 12th, 1884, by Mr. W. E. Saunders; one at Bracebridge, Ont., Feb. 22nd, 1892, by Mr. W. Spreadborough.

One set of four eggs taken in Muskoka, Ont., June 24th, 1889, and presented by Mr. W. Raine.

726b. Rocky Mountain Creeper.

Certhia familiaris montana RIDGW. 1882.

Quite rare at Revelstoke, B.C., only two seen up to May 4th, 1890; occasionally heard in the thick woods during May. (*Spreadborough.*) Rare in British Columbia. A male creeper from Nelson, B.C., appears to be *montana*. (*Rhoads.*) Rather common in winter at Lake Okanagan, associating with chickadees. Tolerably common in winter in the Cariboo district of British Columbia. (*Brooks.*)

726c. Californian Creeper.

Certhia familiaris occidentalis. RIDGW. 1882.

Saw three individuals on October 25th, 1901, at Chilliwack, B.C., in company with a number of Canada nuthatches; one individual seen at Agassiz, B.C., on May 16th, 1889; one shot at Comox, Vancouver Island, May 2nd, 1887, and a few seen at Victoria later in the month. (*Spreadborough.*) Not uncommon on the coast; only one seen in the interior. The single specimen taken at Ducks, a bird of the year, is perhaps referable to *montana*. (*Streator.*) East and west of Coast Range; common on Vancouver Island. (*Fannin.*) Tolerably common resident at Chilliwack. (*Brooks.*) Neither rare nor common on the coast of British Columbia. (*Rhoads.*) Seen only in the tall timber along Indian

River, Sitka, Alaska, where I secured six specimens and saw several others. (*Grinnell*.) One specimen was taken and several others were seen in Cumshewa Inlet, Queen Charlotte Islands, B.C., June 20th, 1900. (*Osgood*.)

MUSEUM SPECIMEN.

One specimen taken by the writer at Comox, Vancouver Island, May 2nd, 1887.

FAMILY LIV. **PARIDÆ** NUTHATCHES AND TITS.CCXLIX. **SITTA** LINNÆUS. 1758!727. **White-breasted Nuthatch.**

Sitta carolinensis LATH. 1790.

Common on Anticosti; Audubon saw one in Labrador. (*Packard*.) Common along the Humber River, Newfoundland, 1899. (*Louis H. Porter*.) Rather common summer resident at Halifax, N.S. (*Downs*.) One individual taken on Sable Island, N.S., September 29th, 1902. (*James Bouteillier*.) Cove Head, Prince Edward Island, July 4th, 1888. (*Macoun*.) Common in spring and summer but not seen in winter at St. John, N.B. (*Chamberlain*.) A tolerably permanent resident at Scotch Lake, York Co., N.B. (*W. H. Moore*.) It is seen in the woods of eastern Quebec, but near the city I have never seen a single individual. Taken at St. Valier, Bellechasse Co., Que. (*Dionne*.) A permanent resident at Montreal. Common spring and fall migrant, but a scarce summer and winter resident. (*Wittle*.)

A common resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) A common bird in eastern Ontario. Have observed it all through the winter as well as in summer at Lansdowne. It breeds commonly in Leeds Co., though as the nest is usually made in a hole of a tree, often a maple, high up, it is not often discovered. (*Rev. C. J. Young*.) A common resident in Parry Sound and Muskoka districts. I found a nest on 24th May, 1893, at Emsdale; it was in a natural hollow in a large maple, and about 30 feet from the ground. The six eggs were laid on the rotten wood and surrounded by a few of the bird's feathers. (*J. H. Fleming*.) Common resident at Guelph, Ont. (*A. B. Klugh*.) Nests have been taken at Sherkston, Welland Co., by Mr. Edward Reinecke. Here it lays from seven to eight eggs in a hole in a decayed tree-

stub. One nest was in an ash tree 50 feet from the ground. (*W. Raine.*) A common resident at Penetanguishene, Ont. (*A. F. Young.*)

MUSEUM SPECIMENS.

Five; two taken at Ottawa by the writer in May, 1888, and one by Dr. F. A. Saunders, Nov. 1st, 1890; two at Bracebridge, Ont., in Feb., 1892, by Mr. W. Spreadborough.

One set of seven eggs taken at Sherkston, Welland Co., Ont., by Mr. Edward Reinecke.

727a. **Slender-billed Nuthatch.**

Sitta carolinensis aculeata (CASS.) ALLEN. 1872.

Somewhat rare; summer resident of woodlands; its distribution seems to be much the same as that of the oak (*Q. macrocarpa.*) I cannot concur that both forms of *Sitta carolinensis* are found in Manitoba; all that I have seen are nearer to *aculeata* than to the typical sub-species. (*Thompson-Seton.*)

One observed in the Crow's Nest Pass, Rocky Mountains, July 29th, 1897; not common at Revelstoke, B.C.; a few were seen in a piece of green timber near the railway station on May 12th, 1890; rather common at Deer Park and Robson on the Columbia River; breeding in both localities; four seen at Cascade, B.C. June, 1902; not uncommon in mountain woods at Spence's Bridge, B.C., May, 1889; only observed two specimens at Penticton, B.C., April, 1903. (*Spreadborough.*) Rather common at Lake Okanagan, B.C., in winter, associating with chickadees; in summer confined to the region of *Pinus ponderosa* in B.C. (*Brooks.*) British Columbia. (*Lord.*) Very common in the interior; breeds. (*Streater.*) Common east of Coast Range; I found them very abundant on the wooded hills above Cornwallis. (*Farrin.*) Abounds in the wooded hills of the interior of British Columbia. (*Rhoads.*) One specimen taken on Sumas prairie, B.C., October 10th, 1894. (*E. F. G. White.*)

MUSEUM SPECIMENS.

Nine; three taken at Deer Park, Columbia River, B.C., June, 1890; three at Cascade, B.C., June 26th, 1902; two at Penticton, B.C., in April, 1903; one at Spence's Bridge, B.C., May 28th, 1889, all by Mr. W. Spreadborough.

728. **Red-breasted Nuthatch.***Sitta canadensis* LINN. 1766.

Audubon, Vol. IV., p. 179, states that he saw one in Labrador, which had probably been driven there by a storm. (*Packard.*) Common on Moose River; none seen at Moose Factory or further north. (*Spreadborough.*) Perhaps a permanent resident in Newfoundland. (*Reeks.*) One seen on the Humber River, Newfoundland, August 18th, 1899. (*Louis H. Porter.*)

A fairly common resident at Halifax, N.S.; associated with the chickadees. (*Dovens.*) Five single specimens were seen on Sable Island in July and August, 1899. There were no signs of nesting and in no case were two seen together on any part of the island. The one located at the main station entered the houses and caught flies in the windows and twice it perched on the writer's head and sprung at the flies in the window from that perch; besides catching flies it would hunt up and down the telephone poles and on the fence posts and boards for other food; not uncommon at Baddeck and Margaree, Cape Breton Island, July, 1898; a few were noticed in spruce trees at Brackley Point, Prince Edward Island, 26th June, 1888. (*Macoun.*) One seen on July 14th and another September 8th, 1902, on Sable Island, N.S. (*James Bouteillier.*) I had about given up seeing this species at all when I came upon several at Souris, Prince Edward Island, probably a family. (*Dwight.*) Usually an uncommon resident at St. John, N.B. (*Chamberlain.*) A common permanent resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Quite common in the Restigouche valley, N.B.; young just beginning to fly in July. (*Brittain & Cox.*) A tolerably common summer resident on the Magdalen Islands. (*Bishop.*) A permanent and common resident in eastern Quebec. Taken at Beauport. (*Dionne.*) A common transient visitant at Montreal; probably a few breed and winter there. (*Wintle.*)

A common resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) In the years 1887 and 1888 this bird appeared to be unusually common in Renfrew Co., Ont. In the former year I met with four nests. Two of these were in partly decayed poplar trees; one about 10 feet and the other about 30 feet from the ground. The eggs are laid the second week in May at latest, as on 21st of that month I found the young just hatched. A peculiarity of the

nest hole is that the orifice is smeared with rosin from the neighbouring spruce or pine trees, carried by the bird. I did not notice any nests in the pine or spruce themselves. About Lansdowne, Leeds Co., the bird is uncommon even in late spring. (*Rev. C. J. Young.*) A common breeding resident in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Abundant everywhere in Algonquin Park, Ont., in summer. (*Spreadborough.*) A common migrant in southern Ontario. Two specimens were noted near Warton in North Bruce, Ont., on June 19th, 1889, which were probably breeding. (*W. E. Saunders.*) A passing migrant at Guelph, Ont. (*A. B. Klugh.*) A common resident at Penetanguishene, Ont., throughout the year. (*A. F. Young.*)

A very rare summer resident in Manitoba especially in the Red River valley. (*Thompson-Seton.*) Very abundant in the fall migration at Aweme, Manitoba. (*Norman Criddle.*) One shot at Medicine Hat, Assa., in May, 1894; a few seen on Lee's Creek, near Cardston, Alta., in July, 1895; not common in the Peace River country, very few seen during the season of 1903; tolerably common in the spruce woods at Edmonton, Alta., June 12th, 1897, found a nest in a hole in a live poplar about 16 feet from the ground, the young were in the nest; common from Edmonton to Athabasca Pass in June, 1898; not uncommon in the foothills south to Crow's Nest Pass; common and breeding in the woods at Banff, Rocky Mountains, in the summer of 1891; a common summer resident at Revelstoke, B.C.; and at Deer Park, and Robson, on the Columbia River, where they were breeding in the thick woods; summer resident near the International Boundary between Trail and Cascade, B.C., in 1902; common both in the valley and on the hills at Penticton, south of Lake Okanagan, B.C., in April, 1903, nesting quite early in April; common in the coniferous woods at Kamloops, Spence's Bridge, Agassiz and Hastings, B.C., in 1889; observed a few all summer in the woods all along the Chilliwack River and Lake, in the Fraser valley in 1901; a common resident throughout Vancouver Island. (*Spreadborough.*) Not rare between Athabasca Landing and Lesser Slave River; first seen May 29th; not rare on the Clearwater River up to Methye Portage. (*J. M. Macoun.*) British Columbia. (*Lord.*) Common on the coast and in the interior. (*Streater.*) Common east and west of Coast Range; winters on Vancouver Island. (*Famin.*) Tolerably common resident from the valley at Chilliwack to timber line on

Coast Range. Common around Lake Okanagan, B.C., in winter, associating with chickadees. Rather common in winter in the Cariboo district of B.C. (*Brooks.*)

Two specimens were taken in Cumshewa Inlet, Queen Charlotte Islands, B.C., June 18th and June 22nd respectively. No others were seen during our stay. (*Osgood.*) I took a male at Skagway, Alaska, May 31st, and another at Log Cabin, June 20th, and heard one on an island at the junction of the Lewis and Pelly rivers, near Fort Selkirk, Yukon district, July 26th. This species has not heretofore been noted in the Yukon valley. (*Bishop.*)

BREEDING NOTES.—The eggs of this species are laid by May 10th, at Scotch Lake, York Co., N.B., in a hole excavated in a dead tree, preferably a spruce or fir. The nest is generally about four inches below the entrance, and is composed of bark, fibre, fur and a few feathers. The cavity is about three inches in diameter and is sometimes made with great labour. On one occasion a pair were found digging a cavity, March 26th, and at that date could get half the size of the bird into the hole. Knots were struck about two inches down and late in April they had to give up their site and find a new place. Before leaving they had collected quite a coating of balsam about the entrance, perhaps for the purpose of keeping out large ants or mice. Both male and female work at nest making. The number of eggs is six, each of which is set in a light depression in the nest lining. (*W. H. Moore.*) In June, 1893, I found this bird nesting at Rush Lake, Assa. There are no trees at Rush Lake, so the bird laid its eggs in a hole in a beam on the stable-roof. (*W. Raine.*) Last summer I found a nest of the red-breasted nuthatch. It was dug in a rotten stump five feet from the ground, and contained young birds almost able to fly. Around the entrance to the nest was a ring of pine or balsam gum, and as I saw the young birds picking at it I inferred it was an insect trap. I also found three nests of the chickadee, and each was lined with the hair of the *Lepus americana*. (*G. E. Atkinson* in *Trans. Can. Inst.*, Vol. III., 3rd Series.)

MUSEUM SPECIMENS.

Twenty-one; one taken at Ottawa by the writer on May 12, 1888, another by Mr. G. R. White, Dec. 16, 1888, and two others by Dr. F. A. Saunders in Nov. 1890; one taken at London, Ont., May 10, 1881, by Mr. W. E. Saunders; one taken at Medicine Hat,

Assa., May, 21, 1894, one at Edmonton, Alta., April 29, 1897, three at Banff, Rocky Mountains in June, 1891, one at Revelstoke, B.C., April 25, 1890, two at Deer Park, Columbia River, B.C., June, 1890, one at Penticton, B.C., April, 8, 1903, one at Spence's Bridge, B.C., June 3, 1889, one at Chilliwack, B.C., June 8, 1901, and two at Victoria, Vancouver Island, in May, 1893, all by Mr. W. Spreadborough.

One set of five eggs taken near Wolfville, N.S., by Mr. Harold Tufts, May 23, 1901; nest in a hole in a dead birch stump about ten feet from the ground, composed of fine rootlets and grass.

730. Pygmy Nuthatch.

Sitta pygmaea VIG. 1839.

British Columbia. (*Lord.*) Found only at Ducks where it was as common as the others. (*Streator.*) I have only found this bird east of the Coast Range. (*Fannin.*) Rather common at Lake Okanagan, B.C. in winter. Confined to the regions of *Pinus ponderosa* in B.C., in summer. (*Brooks.*) Only found and that sparingly at Vernon near Lake Okanagan, B.C. (*Rhoads.*) Common on the hill-sides in the scattered timber at Penticton, Lake Okanagan, B.C. It builds its nest in holes in trees anywhere from 6 to 40 feet from the ground; they have a remarkable way of caulking up the holes and seams in the tree around their nest with hair. They sometimes work 10 or 12 days making the nest; on April 15th, 1903, found a pair building their nest; chopped the same out May 1st and found six eggs; the bird covered them with feathers on leaving the nest so I suppose she had not finished laying. (*Spreadborough.*)

MUSEUM SPECIMENS.

Seven specimens taken at Penticton, B.C., in April, 1903, by Mr. W. Spreadborough.

CCCL. PARUS LINNÆUS. 1758.

735. Chickadee.

Parus atricapillus LINN. 1706.

Locally common in timbered parts of northeastern Labrador. (*Bigelow.*) I am informed by credible persons long resident in

the country, that two species of chickadees occur at Northwest River, at the head of Hamilton Inlet. (*Packard.*) Common on Moose River; none seen at Moose Factory or further north. (*Spreadborough.*) Common and resident throughout the year on Newfoundland. (*Reeks.*) Most abundant along the Humber River, Newfoundland, 1899. (*Louis H. Porter.*)

An abundant resident at Halifax, N.S. (*Downs.*) Common at Baddeck and Margaree, Cape Breton Island, N.S., July, 1898; quite common in woods at Brackley Beach, Prince Edward Island, June, 1888. (*Macoun.*) Occasionally, small roving families were encountered on Prince Edward Island, so that it is a fairly common species. (*Dwight.*) An abundant resident throughout the year at St. John, N.B. (*Chamberlain.*) An abundant and permanent resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Not uncommon in the Restigouche valley, N.B. (*Brittain & Cox.*)

Quite common at Lake Mistassini, northern Quebec. (*J. M. Macoun.*) A common and permanent resident, but most common in spring and autumn. (*Dionne.*) A common winter visitant; observed from September 17th to April 25th. (*Wintlc.*) A common resident at Ottawa. (*Ottawa Naturalist*, Vol. V.) A very common species in eastern Ontario; about Lansdowne, Ont., I met with the nest in May containing six eggs. (*Rev. C. J. Young.*) An abundant breeding resident in Parry Sound and Muskoka districts, Ont. (*J. H. Fleming.*) Common everywhere in Algonquin Park, Ont., in summer, saw a pair making a nest in a rotten stump, June 18th, 1900; another pair was seen building a nest in a hole in a birch tree on July 15th; they appear to work only early in the morning at building their nest. (*Spreadborough.*) Resident the year round at London, Ont., but less common in summer than at other seasons. (*W. E. Saunders.*) Very common resident at Guelph, Ont. (*A. B. Klugh.*) An abundant resident at Penetanguishene, Ont. (*A. F. Young.*) Has been taken at Moose Factory, James Bay, on two occasions. (*E. A. Prebles.*)

BREEDING NOTES.—This species nests at Scotch Lake, N.B., from April to August. Sometimes it uses an old woodpecker's nest, lining it with dark fibres, fur and a few feathers. From five to eight eggs are laid. (*W. H. Moore.*) Nest built in a tree or stump, at Ottawa, lined with hair, fine grass, moss and feathers. Eggs, six to eight, white, speckled and spotted with reddish-

brown, chiefly towards the larger end. (*G. R. White.*) Nests in marshy thickets around Ottawa. On April 18th, 1903, a pair of birds was seen digging a hole in a fence post and on the 8th June, 1903, a nest with six young was discovered in a small stump. The opening, 18 inches from the ground, was one inch in diameter; the nest was a mixture of short hairs, green moss and feathers, and was at a depth of six inches in the stump. (*Garneau.*) A common resident in Ontario; it breeds in a hole of a stub excavated usually by the bird itself about the middle of May, I have seen fresh eggs on the 15th of the month. In its habit of excavating a hole for itself it resembles the European marsh titmouse, the only one of the titmice that does so. In its note and otherwise it closely resembles this species (*Parus palustris*). Though during spring and summer it is a bird of the woods, in cold winter weather it approaches the homes and outbuildings; the present winter (1904) this was especially the case. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Ten; two taken at Ottawa by Mr. G. R. White in April, 1894; three at Ottawa by Dr. F. A. Saunders, in September, 1890; one by the writer, May 4th, 1888; one at London, Ont., by Mr. W. E. Saunders, Nov. 16th, 1886; two at Bracebridge, Ont., March 12th, 1892, by Mr. W. Spreadborough.

Two sets of eggs; one set of four taken at Emsdale, Muskoka, Ont., May 28th, 1893, by Mr. J. H. Fleming and presented to the museum; one of six taken at Wolfville, N.S., by Mr. Harold Tufts, May 15th, 1897, nest, placed in the bottom of a hole in a small birch stump, composed of rootlets and hair.

735a. **Long-tailed Chickadee.**

Parus atricapillus septentrionalis (HARRIS) ALLEN, 1872.

One taken on the Lower Echimamish, June 24th, 1901 (*E. A. Preble.*) A specimen of this form was procured at Chief Mountain Lake, Rocky Mountains, on August 28th, 1874. (*Coues.*) Resident in Manitoba in wooded sections. The Manitoba bird is not strictly *septentrionalis* but is nearer to that form than to *atricapillus*. (*Thompson-Seton.*) A common breeding resident at Aweme, Manitoba. (*Norman Criddle.*) Only one individual was seen in a three months' residence at Indian Head, Assa., in the spring of

1892; two were seen in a willow thicket in the east end of the Cypress Hills, June 27th, 1894; common from Lesser Slave Lake to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903; tolerably common at Edmonton, Alta. by April 17th, May 25th found a nest in a poplar stub about seven feet from the ground, the nest contained eight young; common from Edmonton to Athabasca Pass in June, 1898; observed a number on Elbow River and at Crow's Nest Lake, July 31st, 1897; common and breeding in the mountain woods at Banff, Rocky Mountains, in the summer of 1891; shot at Revelstoke, B.C., on April 9th, 1890, fairly common during April and May; in June it was common at Deer Park, on the Columbia River; a nest containing four eggs was taken at Robson on June 24th, 1890, it was on an old tree hanging over the water of Pass Creek; observed about a dozen at Penticton, B.C., in April, 1903. (*Spreadborough.*) A common and permanent resident around Prince Albert, Sask. (*Coubeaux.*) One specimen taken at the Grand Rapids of the Saskatchewan. (*Nutting.*) Not rare at Athabasca Landing and up the river to Lesser Slave River; common at Fort McMurray, Lat. $56^{\circ} 40'$, but rare up the Clearwater River to Methye Portage, seemingly displacing *P. hudsonicus*; common between Methye Lake and Isle à la Crosse. (*J. M. Macoun.*) According to the dimensions given, the male bird seen at Carlton House by Richardson belongs to this species. Length $5\frac{1}{2}$ inches, length of tail $2\frac{3}{4}$ inches. (*Macoun.*) North to Fort Simpson on the Mackenzie River. (*Ross.*) Common throughout the valleys of the interior. (*Stricator.*) I found this bird very common on the wooded hills east of the Coast Range, especially in the neighbourhood of Cornwallis. (*Fannin.*) Abundant nearly everywhere around Lake Okanagan, B.C., in winter. A common species in winter in the Cariboo district of British Columbia. (*Brooks.*) Abounds in the inter-mountainous regions of British Columbia up to 3,000 feet. (*Rhoads.*)

Throughout the wooded region of Alaska, from the moist heavily-wooded coast in the Sitkan and Kadiak regions north throughout the entire Yukon and adjoining country this bird is a common resident. (*Nelson.*) We took this species at Bennett, June 19th, west shore of Lake Bennett, June 24th, Caribou Crossing June 26th, Lake Marsh, July 7th, and Lake Lebarge July 15th, but did not notice it again until we reached the lower Yukon, although chickadees were heard several times whose specific

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identity was not determined. Thirty miles below Holy Cross Mission I took two, August 25th, and at the Aphoon mouth I saw a small flock August 28th. Young able to fly were taken July 7th. One taken, August 25th, had completed the moult into first winter plumage, while an adult taken the same day was in fresh plumage. (*Bishop.*) On the 26th October, 1898, I was hunting in the willow bottoms along the Hunt River north of our winter quarters on Kotzebue Sound, Alaska, when I met with this species for the first time. (*Grinnell.*)

MUSEUM SPECIMENS.

Fifteen; one taken at Peace River Landing, June 17, 1903; one at Banff, Rocky Mountains, May 19, 1891, two at Edmonton, Alta., April, 1897, five at Revelstoke, B.C., April, 1890, one at Deer Park, Columbia River, B.C., June 7, 1890, two at Cascade, B.C., June 14, 1902, two at Penttaton, B.C., April, 1903, and one at Kamloops, B.C., June 18, 1889, all by Mr. W. Spreadborough.

735b. Oregon Chickadee.

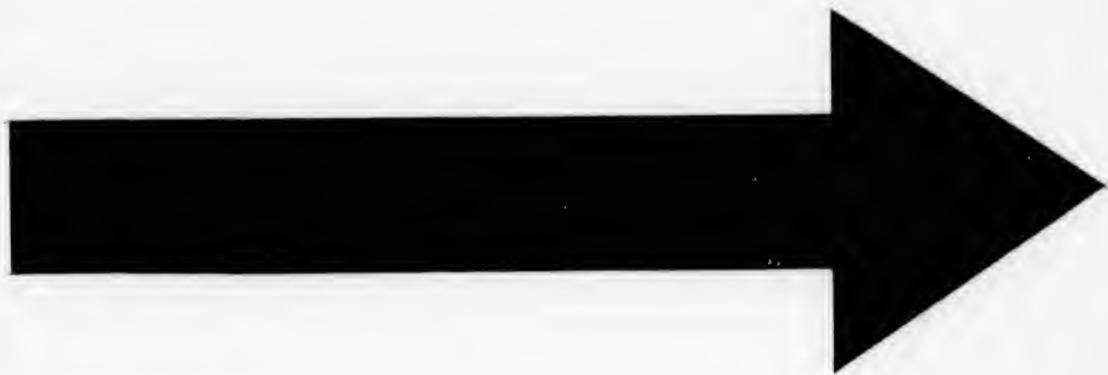
Parus atricapillus occidentalis (BAIRD) COUES. 1872.

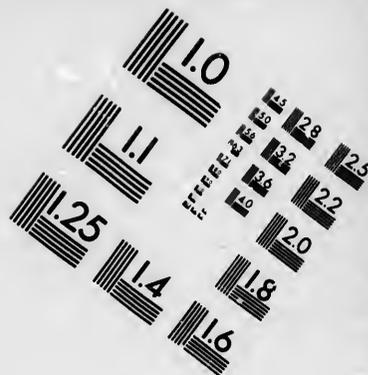
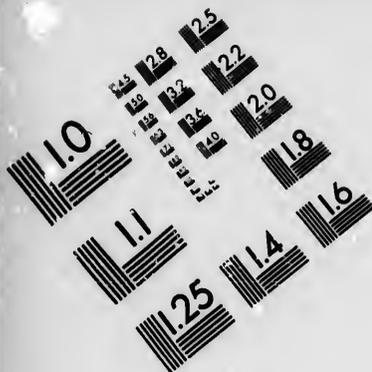
Not uncommon in the woods at Agassiz, and Hastings, B.C., in April and May, 1889; common at Chilliwack, B.C., also along the river to the head of Chilliwack Lake, in July, 1901. (*Spreadborough.*) British Columbia. (*Lord.*) Common in the coast region. (*Streator.*) A common resident west of Coast Range. (*Fannin.*) Abundant resident at Chilliwack. (*Brooks.*) Abundant in the coast region of British Columbia. (*Rhoads.*) Hartlaub records two specimens of this form taken at Chilcat; he added also "on February 17th, seen on the low bushes and deciduous trees near the shore, summer and winter always in low thickets near coast." (*Nelson.*) This species ranges through the Yukon district; during a warm period of winter these birds were occasionally seen at St. Michael. They retire to the interior in May and are not seen on the coast in the summer months. (*Turner.*)

MUSEUM SPECIMENS.

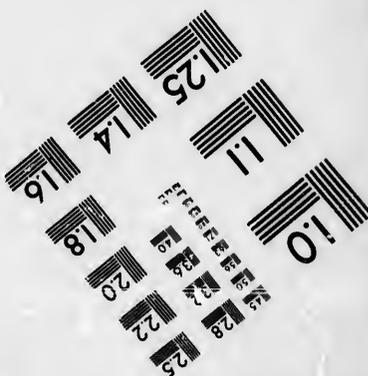
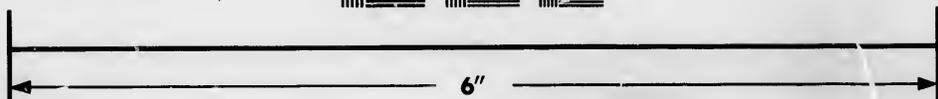
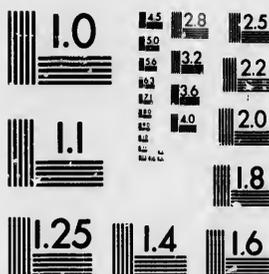
Nine; four taken at Agassiz, B.C., May, 1889, three at Chilliwack, B.C., May, 1901, two at Huntington, B.C., October 4th, 1901, all by Mr. W. Spreadborough.

18½



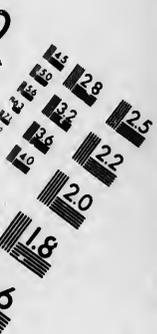


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738. **Mountain Chickadee.**

Parus gambeli RIDGW. 1886.

A common summer resident at Banff, Rocky Mountains in 1891; three shot on the mountains at Deer Park, Columbia River, B.C.; observed two on a mountain north of the Little Miette River, Athabasca Pass, Rocky Mountains, 1898; a common summer resident at Robson, B.C.; young full-grown and fledged by June 26th, 1890; abundant at Spence's Bridge, B. C., in May, 1889; common on Sophie Mountain at 4,400 feet altitude, on the International Boundary, B.C., in 1902; observed about a dozen at Penticton, B.C., in April, 1903; common at Elko, B.C., in May, 1904, a pair building a nest in a hole in a live larch about 14 feet from the ground, May 9th, 1904. (*Spreadborough.*) British Columbia. (*Lord.*) Abundant about the mountains of the interior; breeds. (*Streator.*) Wooded hills east of Coast Range and in Rocky Mountain district. (*Fannin.*) I never secured this species but am confident I saw it on the Coast Range, B.C.; rather common around Lake Okanagan, B.C., in winter; observed occasionally at Quesnel, in the Cariboo district of B.C., in winter. (*Brooks.*) Found in the interior mountains of British Columbia, but not in the Rockies. (*Rhoads.*) Rather common in spring at Golden, on the Columbia River; also in the Selkirk Mountains, B.C. (*E. F. G. White.*)

MUSEUM SPECIMENS.

Seventeen; five taken at Banff, Rocky Mountains in May, 1891; one at Deer Park, and another at Robson, Columbia River, B.C., June, 1890; one at Griffin Lake, B.C., August 6th, 1889; three at Spence's Bridge, B.C., June, 1889; one at Cascade, July 15th, 1902; two others at Penticton, B.C., April, 1903, and three at Elko, B.C., May, 1904; all by Mr. W. Spreadborough.

739. **Siberian Chickadee.**

Parus cinctus obtectus (CAB.) RIDGW. 1885.

On June 1st, 1864, a nest of this species containing seven eggs was found near Fort Anderson in a hole in a spruce stump at a height of six feet from the ground. This was the first discovery of the nest of this bird on the American continent. It was composed of a moderate quantity of hare or rabbit fur, intermixed with a

sprinkling of dried moss. (*Macfarlane*.) The habitat of this bird includes, as far as known, the spruce forests in northeastern Siberia, extending across a very similar region in the northern half of Alaska and reaching the Anderson River on the east. (*Nelson*.) Several specimens of *Parus* were obtained from various localities in the Yukon district. They were referred to the species *cinctus*. Later examinations show that these are identical with *P. obtectus*, Cab. (*Turner*.)

740. Hudsonian Chickadee.

Parus hudsonicus FORST. 1772.

Abundant everywhere in the wooded tracts. Young were obtained, July 19th, 1882, at Davis Inlet, and early in August at Fort Chimo. (*Packard*.) Observed a number about 15 miles inland from Richmond Gulf, July 6th, 1896; next observed at George's River, September 18th, where they were common. (*Spreadborough*.) Breeds; is common, and does not migrate from Newfoundland. (*Reeks*.)

A rather common resident at Halifax, N.S. (*Downs*.) Not uncommon at Baddeck and Margaree, Cape Breton Island, July, 1898; common in spruce trees at Brackley Point, Prince Edward Island, June 26th, 1888. (*Macoun*.) Tolerably common on Prince Edward Island. (*Dwight*.) Met with at all seasons at St. John, N.B. (*Chamberlain*.) A common permanent resident at Scotch Lake, York Co., N.B. (*H. Moore*.) Not uncommon in the Restigouche valley, N.B. (*Brittain & Cox*.) Common on the Magdalen Islands. (*Bishop*.) Not so common as the black-capped chickadee. It breeds in the northern part of Quebec province; taken at Beauport. (*Dionne*.) A rare winter visitant at Montreal. Mr. Kuetzing has found this species in Hochelaga woods from November 1st to December 7th. (*Wintle*.)

A moderately common winter migrant at Ottawa; early fall records are October 31st, 1883 and October, 20th, 1889. (*Ottawa Naturalist*, Vol. V.) This seems to be the commonest chickadee on the Magdalen Islands; I met with it frequently there in June, 1897, and found two nests containing young the middle of that month. The nest was built in a small spruce stump about two feet down, the hole being entered from the top. In one case the nest rested on the ground, the stump being not more than eighteen

inches high; I never saw this bird in Ontario. (*Rev. C. J. Young.*) Mr. Kay saw a pair at Port Sydney, Muskoka, in November, 1892; I have looked for it carefully in Parry Sound district but without success; I have secured a single specimen at Toronto. (*J. H. Fleming.*) We first met this species on the Echimamish River, June 24th. We noted it again at Robinson Portage, three days later, and found it common at Oxford House, where we secured a male, July 3rd. We saw several on an island in Knee Lake, July 5th, and a number at York Factory, July 13th, collecting two on the latter date. On our return we saw several on Hill River, September 3rd. (*E. A. Preble.*) Found only in the north and east of Manitoba among the great coniferous forests; permanent resident. (*Thompson-Seton.*) Two specimens of this species were secured at Grand Rapids of the Saskatchewan. (*Nutting.*) First noticed at Sulphur Springs on the Clearwater River, about Lat. $56^{\circ} 30'$, very common from there to Methye Portage and across the portage, and from Methye Lake to Isle à la Crosse. (*J. M. Macoun.*) Shot one on May 7th, 1897 at Edmonton, Alta., the only one seen; one seen at Bear Creek, Peace River, Lat. 56° , August 5th, 1903; common in spruce woods along the Athabasca River at Jasper House, Alta., in June, 1898. (*Spreadborough.*) North to Fort Simpson on the Mackenzie River; not common. (*Ross.*) This bird has been found throughout the wooded portion of Alaska from its southern coastline at Fort Kenai north through the Kuskoquim and Yukon River regions to the northern tree-limit, well within the Arctic Circle. (*Nelson.*) A number of specimens of this species was obtained from Fort Yukon, Nulato and several from St. Michael. It visits the coast only during the winter. It is a constant resident of the wooded districts and in some localities is quite abundant. (*Turner.*) Very common at Tyonek, but rarely seen at Hope; two specimens were taken at Fort Kenai by Bischoff. Cook's Inlet specimens do not seem to differ from those of the Yukon and Kowak valleys. I am also unable to find any appreciable differences between them and three birds recently collected by E. A. Preble near the type locality of *hudsonicus*. Consequently I do not agree that the specimens at present available warrant the recognition of *Parus hudsonicus evura*. From a rather hasty examination of the material in the National Museum there seems to be an average difference in the length of the tail

between the Alaska birds and the birds from the extreme north-eastern United States. The birds from the west side of Hudson Bay, however, are intermediate and apparently nearer to the Alaska birds. In other words, as far as present material goes, there are just as good grounds for the recognition of *Parus hudsonicus littoralis* Bryant, 1863, from Nova Scotia, as for *P. h. evura* Coues, 1884, from Alaska. (*Osgood.*)

BREEDING NOTES.—One nest of this species found at Scotch Lake, N.B., was in a fir stub about 15 feet from the ground, the hole was lined with hair and fur. Eggs 6, hatched June 1st; June 28th, found a nest of six young birds ready to leave the nest. (*W. H. Moore.*) I have several sets of eggs that were taken at Hamilton Inlet, Labrador, in June, 1896. The bird lays six to eight eggs in a hole in a decayed stub. (*W. Raine.*)

MUSEUM SPECIMENS.

Three specimens taken at Miramichi, N.B., in 1889, by Mr. Philip Cox; one taken at Edmonton, Alta., May, 1897, by Mr. W. Spreadborough.

One set of six eggs taken at Wolfville, N.S., June 3rd, 1896, by Mr. Harold Tufts.

740a. **Kowak Chickadee.**

Parus hudsonicus stoneyi (RIDGW.) A. O. U. CHECK LIST.
1889.

Valley of the Kowak River, northwestern Alaska. (*A. O. U. Check List.*)

740b. **Columbian Chickadee.**

Parus hudsonicus columbianus RHOADS. 1893.

One specimen of this species was shot on the summit of Toad Mountain, near Nelson, B.C., at an altitude of 6,700 feet in July, 1890, and one in Eagle Pass, near Revelstoke, B.C.; two specimens were taken on Moose Mountain, near the source of Elbow River, and two others observed at the source of Fish Creek, Rocky Mountains in July, 1897. (*Spreadborough.*) Four specimens of *Parus* from the central Rocky Mountains near Field, B.C., taken in a deep forest at an elevation of 5,000 feet differ so materially from *Parus hudsonicus* that it seems proper to separate them. (*Rhoads.*) Rather common at Lake Okanagan, B.C., in

winter. I also took this species on the divide between Nicola and Okanagan valleys, the most westerly point I have observed it. Abundant in the heavy spruce timber and on high elevations, in winter, in Cariboo district, B.C. (*Brooks.*) Rocky Mountains, from Liard River south into Montana. (*Rhoads in The Auk*, Vol. X., p. 331.) An adult male was taken at Homer in June, and two specimens on September 12th, 1901, in first winter plumage. Not common but seen at all places visited on the Kenai timber belt in Alaska. It was usually found in the dead spruce groves of the more open country. (*Chapman.*)

740c. **Yukon Chickadee.**

Parus hudsonicus evura COUES.

We took the Yukon chickadee at Caribou Crossing, June 27th; Lake Tagish, June 30th; Lake Marsh, July 5th, and Lake Lebarge, July 14th; and after reaching Thirty-mile River, July 19th, found it regularly distributed in families or large flocks, all the way to Fort Yukon, 15 miles above which I saw a flock, August 21st. At St. Michael I took a young female in first winter plumage, September 20th. Young able to fly were first taken, July 5th, and moulting birds, August 13th. We took adults in full moult, June 27th, and one in which the moult was almost completed, July 24th. (*Bishop.*) At our winter camp on the Kowak, Kotzebue Sound, Alaska, this species was common up to September. After that date and up to the first of April, but one or two at a time were seen and then only at long intervals. Early in September, groups of four to seven were noted nearly every day in the spruces around the cabin. Those chickadees observed during the winter were all in the dense willow thickets along Hunt River. By the first of May the chickadees were back again roving through the woods in pairs. Old woodpecker-holes were selected as nesting sites, and I spotted nests in process of construction by the 15th May, but through various mishaps I failed to secure any eggs. (*Grinnell.*)

741. **Chestnut-backed Chickadee.**

Parus rufescens TOWNS. 1837.

Very common in the woods at Hastings, Burrard Inlet, B.C., in April, 1889; none were seen at Agassiz, about 50 miles up the Fraser River in May; an abundant resident on Vancouver Island,

nesting, April 16th, 1893, on May 5th found a nest in a hole in a dead tree; nest made of moss, lined with feathers. (*Spreadborough.*) From about Lat. 60°, on the southeastern coast of Alaska, south into California this titmouse is abundant and breeds throughout the greater part of its range. (*Nelson.*) British Columbia. (*Lord.*) Common in the coast region; breeds. (*Streator.*) A common resident west of the Coast Range; breeds close to Victoria. (*Fannin.*) Tolerably common resident at Chilliwack; not uncommon around Lake Okanagan, B.C., in winter. (*Brooks.*) Very common on the coast and islands of British Columbia but not found east of the Coast Range. (*Rhoads.*) Very common at English Bay, Vancouver, August 8th, 1894. (*E. F. G. White.*) Common everywhere, especially in the younger firs at the heads of the bays and inlets. First young, fully fledged, taken June 26th, near Sitka, Alaska. (*Grinnell.*) Abundant on Queen Charlotte Islands, B.C. Seven specimens taken by us. (*Osgood.*) We found a few at Haines and Skagway, Alaska, and I took one and heard another at Glacier, June 5th. A female taken at Skagway, June 3rd, had finished laying. (*Bishop.*)

MUSEUM SPECIMENS.

Seven; two taken at Hastings, Burrard Inlet, B.C., April, 1889, and five at Victoria, Vancouver Island, April and May, 1893, all by Mr. W. Spreadborough.

CCLI. *PSALTRIPARUS* BONAPARTE. 1850.743. *Bush-tit.*

Psaltriparus minimus (TOWNS.) BONAP. 1854.

I shot two specimens out of a considerable number on 25th November, 1899, but could not find any the next day at the same place, nor have I ever seen them before, though I have looked out for them. (*Brooks.*) This last reference is presumably to the Fraser River valley. (*Macoun.*)

FAMILY LV. SYLVIIDÆ. WARBLERS, KINGLETS.

CCLII. *PHYLLOPSEUSTES* MEYER. 1815.747. *Kennicott's Willow Warbler.*

Phyllopseustes borealis (BLAS.) MEVES. 1875.

The original record of this bird in America was based on the capture of a single specimen at St. Michael, on August 16th

1866, by the naturalist of the Western Union Telegraph expedition. During the summer of 1877, on July 26th and 31st, I obtained two specimens on each of the days mentioned, as they were searching the old board fences surrounding the houses at St. Michael. A few others were obtained later and they were seen the next year. (*Nelson.*) Two were discovered flitting rapidly among the foliage of some birches a hundred yards back from the Kowak River, Kotzebue Sound, near our winter cabin. Their behaviour closely resembled that of the ruby-crowned kinglet. I saw Kennicott's willow warbler but once again, on the 14th of June, 1899, in the Kowak delta. I was following close around the margin of a small lake, when I found myself within twenty feet of a single individual which I at once recognized as of the same species taken the previous fall. The bird was close to the ground searching among some willow bushes and stunted spruces. (*Grinnell.*)

CCLIII. **REGULUS** CUVIER. 1799.

748. **Golden-crowned Kinglet.**

Regulus satrapa LICHT. 1823.

Fairly common in patches of spruce on the northeastern coast of Labrador, as far north as Aillik. (*Bigelow.*) Audubon, Vol. II., p. 165, found them feeding their young in August. (*Packard.*) A common resident in Nova Scotia. (*Downs.*) A small flock was seen on Sable Island, N.S., on October 2nd, 1902. (*James Boutellier.*) Common in the woods at Brackley Point, Prince Edward Island, July 17th, 1888. (*Macoun.*) Infrequently observed on Prince Edward Island. Young were on the wing by the last of June; not uncommon at Baddeck, Cape Breton Island, in June, 1887. (*Dwight.*) Rather common, most abundant in the fall and winter, but it breeds in New Brunswick. (*Chamberlain.*) A common and permanent resident at Scotch Lake, York Co., N.B.; the young are about with the parents in late June. (*W. H. Moore.*)

A common but transient visitant, at Montreal in spring and autumn. (*Wintle.*) A not common spring and autumn migrant in eastern Quebec. (*Dionne.*) A common migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) One of the commonest birds among pine and hemlock trees in the early spring; I see numbers every year; I observed them breeding on the Magdalen Islands, in June,

1897, among the spruce, but could not find the nest; I never saw any in Ontario after the 1st of May. (*Rev. C. J. Young.*) An abundant winter resident; on two occasions I have met with birds in May, that from their actions must have been nesting. (*J. H. Fleming.*) Has been found two or three times near London, Ont. in late May, but no actual proof of breeding is yet reported. An abundant migrant, remaining through mild winters. (*W. E. Saunders.*) Not at all unusual to see a small party of these little fellows sunning themselves on the warm side of a cedar or spruce hedge during the coldest winter months around Toronto. (*J. Hughes-Samuel.*) A winter resident at Guelph, Ont. (*A. B. Klugh.*) One seen on the lower Echimamish, June 24th, 1901. (*E. A. Preble.*)

A very rare migrant; but may breed in Manitoba. They are very uncertain in their movements. (*Thompson-Seton.*) A rare migrant at Aweme, Manitoba. (*Norman Criddle.*) Common in spruce woods from Jasper House to the summit of the Rocky Mountains in June, 1898; breeds at Banff, Rocky Mountains, but not so common as the ruby-crowned kinglet; common at Revelstoke, B.C., up to April 20th, 1890, when all disappeared; breeding in the woods at Robson, B.C.; young shot, June 10th, 1890; common on Sophie Mountain, on the International Boundary, B.C., at an altitude of 4,400 feet in 1902. (*Spreadborough.*) Seen near Grand Rapids of the Saskatchewan, but none were secured. (*Nutting.*) Common in the mountains southwest of Calgary, also in Crow's Nest Pass, July 28th, 1897. (*Spreadborough.*)

BREEDING NOTES.—A set of seven eggs in my collection was taken at Cartwright, Labrador, June 15th, 1895. The nest was suspended to a branch of a spruce tree, 15 feet from the ground. (*W. Raine.*)

MUSEUM SPECIMENS.

Thirteen; two taken at Banff, Rocky Mountains in May, 1891, three at Revelstoke, B.C., April, 1890, two at Trail, B.C., May, 1902, and one at Deer Park, B.C., June 6th, 1890, all by Mr. W. Spreadborough; two taken at Ottawa in April, 1888, by Prof. Macoun; five others at Ottawa, in 1890, by Dr. F. A. Saunders.

748a. **Western Golden-crowned Kinglet.**

Regulus satrapa olivaceus BAIRD. 1864.

Frequent in woods at Hastings, Burrard Inlet, B.C., in April, 1889. Saw a few at the foot of Chilliwack Lake, B.C., July, 1901;

common at Huntington, B.C., on the International Boundary in September of the same year; a common resident on Vancouver Island. (*Spreadborough.*) Very plentiful on Vancouver Island and in British Columbia. (*Lord.*) Very common spring and fall migrant; a few remain to breed. (*Streator.*) Abundant throughout the district west of the Cascades. (*Fannin.*) Common winter resident, breeds on the mountains; common throughout the winter at Lake Okanagan, B.C.; a few of these delicate little birds remained in Cariboo district, B.C. throughout the coldest weather. (*Brooks.*) I find no colour difference between the east and west of the Coast Range. (*Rhoads.*) Common on Queen Charlotte Islands, B.C.; an adult male was taken at Cumshewa Inlet, June 20th, 1899. Moderately common at Cook's Inlet, Alaska. (*Osgood.*) Tolerably common at Glacier above Skagway, Alaska; often heard but seldom seen and hard to procure; a female that I took on June 10th had the last egg ready for the shell. (*Bishop.*) A male and female were taken at Homer, Kenai Peninsula, Alaska, September 26th, 1901, and a male at Sheep Creek, on August 18th. (*Chapman.*) The Alaska records of this species are limited to the southeastern coast where it has been obtained at Sitka and Kadiak. (*Nelson.*) Common everywhere, particularly in the dense fir thickets along streams at Sitka, Alaska. On June 22nd, I observed the first young. (*Grinnell.*)

MUSEUM SPECIMENS.

Four; two taken at Huntington, B.C., in September, 1901, and two at Victoria, Vancouver Island, April, 1893, by Mr. W. Spreadborough.

749. **Ruby-crowned Kinglet.**

Regulus calendula (LINN.) LIGHT. 1823.

One sent from Nenortalik, Greenland, in 1859. (*Arct. Man.*) Common in the southern portions of Labrador; Coues obtained a specimen in August at Rigolet; and Stearns shot a single specimen at Old Fort Island, October 11th, 1881. (*Packard.*) Common at Moose Factory, June 9th, 1896. Observed at Fort George, June 20th. Common at Richmond Gulf, July 1st. None seen inland. (*Spreadborough.*) Common at Baddeck, Cape Breton Island. (*F. H. Allen.*) Uncommon at Halifax, N.S. (*Downs.*)

A small flock was seen on Sable Island, N.S., on October 3rd, 1902. (*James Bouteillier*.) In pine woods, Brackley Point, Prince Edward Island, July, 1888. (*Macoun*.) An uncommon summer resident at St. John, N.B. (*Chamberlain*.) A rare summer migrant at Scotch Lake, York Co., N.B. (*W. H. Moore*.) Common at Lake Mistassini, 1885, where it breeds. (*J. M. Macoun*.) Taken at York Factory, Hudson Bay. (*Dr. R. Bell*.) Taken at Fort Churchill, Hudson Bay. (*Wright*.) One female seen at Fox Bay, Anticosti. (*Brewster*.) More common than the preceding in eastern Quebec. Taken at Beauport. (*Dionne*.) A common but transient visitant in spring and autumn at Montreal. (*Wintle*.)

A common migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) A common resident in autumn and winter in Parry Sound and Muskoka districts. (*J. H. Fleming*.) Common during migration at Guelph, Ont. (*A. B. Klugh*.) I saw one at Norway House, June 17th, and took a specimen on the Echimamish, June 24th. It was common at Oxford House, June 30th to July 4th. One was observed as we ascended Hill River, September 1st. (*E. A. Preble*.)

This species was observed on Mouse (Souris) River, in September during the autumnal migration, frequenting the dense undergrowth in the river bottom in company with warblers. (*Coues*.) A tolerably common migrant in spring and autumn in Manitoba. (*Thompson-Seton*.) Common at Aweme, Manitoba, in spring and fall; probably breeds; arrives about April 25th, and leaves Oct. 4th. (*Norman Criddle*.) Only three specimens were found at Medicine Hat, Assa., in April and May, 1894; common in spruce woods from the mouth of Lesser Slave River to Peace River Landing, Lat. 56° 15', June, 1903; first seen at Edmonton, Alta., May 4th, 1897; tolerably common in the spruce woods and breeding without doubt; common in the spruce woods of the foothills from Edmonton to Crow's Nest Pass in July and August; quite common at Banff, evidently breeding early as there were young birds in May, 1891; a common species in April, 1890, at Revelstoke, B.C., but all seemed to be migrants; quite common on Sophie Mountain on the International Boundary, B.C., at an altitude of 4,400 feet in 1902; quite common in the early part of April, 1889, at Hastings, Burrard Inlet; shot on the mountains at Spence's Bridge, B.C., late in May, 1889; very abundant at Huntington, B.C., on the International Boundary in September, 1901; appar-

ently a summer resident on Vancouver Island, seen first on April 18th when they were in large numbers in conifers with chickadees; first seen at Penticton, B.C., April 13th, 1903, abundant everywhere by the 20th and remained so until May 1st; common at Lake Ste. Anne, north of Edmonton, and from thence along the trail to the Athabasca Pass in June, 1898; common at Fernie and Elko, B.C., in May, 1904. (*Spreadborough.*) Very common at the south end of Methye Portage. (*J. M. Macoun.*) North to Fort Resolution on the Mackenzie River; rare. (*Ross.*) There is no doubt but this bird is to be met with during the summer season on the Anderson River, but we found no nests. (*Macfarlane.*)

Seen only east of the Coast range. (*Lord.*) Found only in the coast region during autumnal migration. (*Streator.*) Abundant in the district west of the Coast Range. (*Fannin.*) Common winter visitant at Chilliwack; breeds on the mountains. (*Brooks.*) Numerous on the coast of British Columbia in spring. Breeding in the interior. (*Rhoads.*)

This handsome species has been secured from various portions of the territory. The various Alaskan records include Fort Yukon, Nulato, Anvik, in the north, with Sitka and Fort Kenai on the southeastern coast. (*Nelson.*) Specimens of this bird were obtained from Fort Yukon, where it is common, breeding there. At Nushagak, on Bristol Bay, I saw a single specimen of this bird flitting amongst the willows which skirt the river. (*Turner.*) On the 23rd August, I shot one specimen and saw two others in a willow copse bordering the Kowak, a couple of miles above our winter camp. I did not see the species again until June 10th, in Kowak delta, Kotzebue Sound, Alaska. (*Grinnell.*)

BREEDING NOTES.—I have a beautiful nest containing eleven eggs that was taken at Dartmouth, Nova Scotia on June 1st, 1898; this nest was suspended to the branch of a black spruce tree, 20 feet from the ground; besides this one I have four others taken at the same place and all alike in structure; the nests were round balls of green moss well lined with feathers and were suspended from the branches of spruce trees. (*W. Raine.*) Breeding near 158-Mile House, B.C.; on the 11th June I found a nest in a small spruce not four feet high; the nest was close to the stem and about two feet from the ground; it was a very deep cup, almost a vertical

cylinder; the sitting bird must have been entirely concealed; it contained five eggs, a sixth imperfect one was sticking in the foundation of the nest; it had evidently been pushed through the lining and a fresh floor built over it; the owners were raising a great outcry over the intrusion of a wandering brood of "whiskey jacks"; two grouse feathers were carefully put over the entrance to the nest, which made me think that it had been rifled by the jays and the lining pulled out. (*Brooks.*)

MUSEUM SPECIMENS.

Twenty-four; two taken at Banff, Rocky Mountains in April, 1891, two at Edmonton, Alta., May, 1897, six at Revelstoke, B.C., April, 1890, two at Penticton, B.C., April, 1903, one at Medicine Hat, Assa., May, 11th, 1894, four at Huntington, B.C., October, 1901, one at Burrard Inlet, B.C., April 7th, 1889, and one at Fernie, B.C., April 21st, 1904, all by Mr. W. Spreadborough; one at London, Ont., May 2nd, 1885, by Mr. W. E. Saunders; four at Ottawa, Ont., in May, 1890, by Dr. F. A. Saunders.

849a. **Sitkan Kinglet.**

Regulus calendula grinnelli PALMER. 1897.

This kinglet was not very common, and I only observed it along Indian River, at Sitka, Alaska, in tall firs; I saw them in pairs on two occasions, but I secured no young. This kinglet doubtless breeds, though not in abundance; three adult males were secured. (*Grinnell.*) At Skagway, Alaska, I heard a Sitkan kinglet singing May 31st, and at Haines took a male and heard another singing June 1st. At Glacier I took a male June 6th, and during our stay heard two or three others singing. While the Log Cabin bird is normal *calendula*, the Haines and Glacier birds have the more olive back and darker sides of crown of *grinnelli*. (*Bishop.*)

CCLIV. **POLIOPTILA** SCLATER 1851.751. **Blue-gray Gnatcatcher.**

Polioptila cœrulea (LINN.) SCB. 1855.

An accidental visitant at Montreal. Mr. Kuetzing saw one example of this species in Mr. Craig's collection, shot on the island of Montreal a number of years ago, but Mr. Craig says he does not remember having it in his possession. (*Wintle.*) Casual

at Ottawa; one was shot by Mr. G. R. White, previous to 1881 (*Ottawa Naturalist*, Vol. V.) The only specimens I know to have been taken near Toronto are those by my friend Mr. C. W. Nash and by Mr. Oliver Spencer. (*J. Hughes-Samuel*.) A not uncommon summer resident of Ontario, west and south from London. (*W. E. Saunders*.)

MUSEUM SPECIMENS.

One purchased with the Holman collection in 1885.

One set of five eggs taken June 1st, 1891, two miles west of London, Ont., by Mr. W. E. Saunders. Nest of vegetable fibre and well covered with lichens, placed on a horizontal branch of a cherry tree two feet from the ground.

FAMILY LV. **TURDIDÆ**. THRUSHES, SOLITAIRES, &C.

CCLV. **MYADESTES** SWAINSON.754. **Townsend's Solitaire.**

Myadestes townsendii (AUD.) CAB. 1847.

Observed at the Elbow River near Calgary, June 21st, 1897, common in the Rocky Mountains south to Crow's Nest Pass in July, 1897; a common species at Banff, breeding on mountains high up; seen everywhere in the mountains around the Athabasca Pass, 1898; quite common at Revelstoke, B.C., from the 16th to the 20th April, 1890; they sat around on stumps and caught flies or flew down at anything they might see; in June they were seen at Deer Park, Arrow Lake, at an elevation of 2,000 feet, and doubtless breeding; observed on nearly all the mountains on the International Boundary in British Columbia; one seen on Deer Ridge, south slope of Mount Cheam, B.C., August 10th, 1901; two seen near the summit of Mount Benson, Nanaimo, Vancouver Island, July 10th, 1893, the birds had a nest in the side of the bank close to the rocky summit; only seen in the Okanagan valley, B.C. in the early part of April, 1903; all disappeared about the 15th; heard singing everywhere in the woods at Elko, B.C. from the snow to the level of the railway, May, 1904. (*Spreadborough*.)

Very rare, only shot once in the Columbia valley. (*Lord*.) A rare bird though I have taken it both east and west of the Coast Range, and have taken it at Ladners, in the lower Fraser valley, in January. (*Fannin*.) Rare migrant in the valley at Chilliwack;

breeds on the mountain tops; tolerably common in winter at Lake Okanagan, B.C.; sings throughout the winter; feeds on fruit during the cold weather. (*Brooks.*) I secured an individual on Vancouver Island in May. They were met with at high altitudes both east and west of the Coast Range, Selkirks and Rockies, as far north as the 52nd parallel, increasing in abundance eastwardly. (*Rhoads.*) On the heights above Bennett I took an adult male June 17th; on the hot noon of June 26th, while seated on the summit of a hill some 1,500 feet above Caribou Crossing, I heard the most beautiful bird-song that has ever delighted my ear. It seemed to combine the strength of the robin, the joyousness and soaring quality of the bobolink, and the sweetness and purity of the wood thrush. Starting low and apparently far away, it gained in intensity and volume until it filled the air, and I looked for the singer just above my head. I finally traced the song to a Townsend solitaire that was seated on a dead tree about 150 yards away, pouring forth this volume of melody without leaving its perch. The singer came close enough later to make identification certain.

Osgood and Maddren saw one at Lake Lebarge, July 14th. Osgood took an adult at Miles Cañon, July 11th, another at the Semenow Hills, July 20th, a young one in the spotted plumage, 20 miles below the Selwyn River, July 29th, and another young, 30 miles above the White River, July 30th. I saw an adult near the Selwyn River, July 29th, and took a moulting adult near Sixty-mile Creek, August 1st. Mr. Cantwell found this species in the Yukon valley. (*Bishop.*)

BREEDING NOTES.—This bird breeds at Banff, Rocky Mountains. On June 9th, 1893, we found its nest and four eggs. The nest was built on a bank side, and we caught the bird as she flew off the nest. Other nests were taken at Banff, 1893, and these also were placed on the side of the bank. (*W. Raine.*)

MUSEUM SPECIMENS.

Fourteen; two taken at Banff, Rocky Mountains in May, 1891; one at Hector, B.C., Aug. 10th, 1890; five at Revelstoke, B.C., April, 1890; one at Spence's Bridge, B.C., June 4th, 1889; one at Penticton, B.C., April 9th, 1903; one at Chilliwack, B.C., August 11th, 1901; three at Fernie, B.C., April, 1904, all by Mr. W. Spreadborough.

One set of four eggs taken on the mountain side, north side of Yellowhead Lake, Yellowhead Pass, B.C., alt. 6,000 feet, July 13, 1898, by Mr. W. Spreadborough.

CCLVI. **HYLOCICHLA** BAIRD. 1864.

755. **Wood Thrush.**

Hylocichla mustelina (GMEL.) RIDGW. 1880.

Accidental visitant at Montreal. This thrush is said to occur in the Eastern Townships, but I have never met with it in this district yet. Have seen one specimen taken at Roxton Falls, Que. (*Wintle*.) A rare summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) I have seen a few of these birds in Leeds Co., Ont., but they are not common. A few breed as I have met with a nest from which the young had flown, that evidently belonged to this species; and another on a limb of a hemlock about eight feet from the ground in Frontenac Co., in June, 1902. (*Rev. C. J. Young*.) I have one taken at Emsdale, Parry Sound district, on May 17th, 1897; in September, 1898, near the narrows of Lake Joseph, I came across a flock feeding on choke-cherries. I counted seventeen and there were more in the flock. Dr. Brodie says they were common in June at Port Sydney, Muskoka. (*J. H. Fleming*.) Common during migrations; breeds in limited numbers at Guelph, Ont. Arrives about May 10th and leaves about September 11th. (*A. B. Klugh*.) A common resident and breeding at Penetanguishene, Ont., I once found a nest in a hardwood undergrowth, placed in the forks of a beech about seven feet from the ground. (*A. F. Young*.)

MUSEUM SPECIMENS.

Two; one purchased with the Holman collection in 1885, and one taken by Mr. S. Herring at Toronto in 1889.

One set of three eggs taken at Bryanstown, Middlesex Co., Ont., June 11th, 1884, by Mr. Robert Elliott.

756. **Wilson's Thrush.**

Hylocichla fuscescens (STEPH.) RIDGW. 1880.

A summer migrant in Newfoundland. (*Reeks*.) One seen September 14th, 1899, on the Humber River, Newfoundland. (*Louis H. Porter*.) Not very common in Nova Scotia; seen only

inland; breeds at Stewiacke. (*Downs.*) Rare in woods at Brackley Point, Prince Edward Island, July 4th, 1888; also on Cape Breton Island in 1898. (*Macoun.*) A summer resident in the neighbourhood of St. John, N.B. (*Chamberlain.*) A tolerably common summer resident along the St. John River, Scotch Lake, York Co., N.B. (*W. H. Moore.*) Common summer resident on the Magdalen Islands. (*Bishop.*) One pair breeding at Ellis Bay, Anticosti, July 24th. (*Brewster.*)

Common summer resident at Montreal; breeds in Mount Royal park; nests with eggs found from May 31st to June 27th. (*Wintle.*) This is a common summer resident in eastern Quebec. Taken at Beauport. (*Dionne.*) A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) A very common bird, breeding in numbers in eastern Ontario. (*Rev. C. J. Young.*) An abundant summer resident in Parry Sound and Muskoka districts. (*J. H. Fleming.*) Not uncommon in Algonquin Park, Ont., in summer of 1900. (*Spreadborough.*) Very common summer resident at Guelph, Ont. Arrives about May 8th, leaves about September 10th. (*A. B. Klugh.*) Summer resident and breeding at Penetanguishene, Ont. (*A. F. Young.*)

Unlike the other species of this genus this form does not appear to extend westward beyond the valley of Red River; at any rate it was only observed in the vicinity of Pembina. Here it was found breeding in abundance during the month of June. A nest was found on the 9th June, containing four fresh eggs of a uniform bluish-green colour. It was placed upon a small heap of decayed leaves which had been caught on the footstalks of a bush a few inches from the ground, and composed of weed-stems, grasses and fibrous bark-strips, woven together, and mixed with withered leaves. The walls were thick, giving a bulky, irregular, and rather slovenly appearance. (*Coues.*) An abundant summer resident of thickets in Manitoba. (*Thompson-Seton.*) A tolerably common breeding summer resident at Aweme, Manitoba; arrives about May 15th and leaves about the 1st of September. (*Norman Criddle.*)

BREEDING NOTES.—Breeds in numbers in woods around Ottawa. The nest is made of dried leaves mixed with grass, bark or branches, and is placed near a tree on a bed of leaves, in a low bush or sometimes on a stump. Four eggs are usually laid in

May or June. (*Garneau*.) Nest on the ground or in a low bush, composed of withered leaves, grass stems, weed stalks, and bark strips, compactly woven inside but with no special lining. Eggs 4 or 5, greenish-blue with no markings. (*G. R. White*.) The nest is placed on or near the ground, in bushes, at Scotch Lake, York Co., N.B., and is composed of grasses, leaves, etc., lined with rootlets. Eggs, 3 or 4. (*W. H. Moore*.)

MUSEUM SPECIMENS.

Three; all taken at Ottawa, two by the writer in May, 1888, and one by Dr. F. A. Saunders May 23rd, 1890.

One set of three eggs taken at Ottawa by Dr. James Fletcher.

756a. **Willow Thrush.**

Hylodichla fuscescens salicicola RIDGW. 1882.

Only one specimen known, taken by myself at Ottawa, Sept. 19th, 1898. It seems probable that this bird may be regularly taken in Ontario from Sept. 1st to 25th as it appears to have a breeding ground to the north of us, but has been overlooked in the past on account of its similarity to Wilson's thrush. (*W. E. Saunders*.) The characteristic "veery" call-note and song were heard several times, and the singer was seen once as we floated down Red River between Winnipeg and West Selkirk, June 14th. None were taken but specimens from the region seem referable to the western form. (*E. A. Preble*.)

This species seems to be a spring migrant at Indian Head, Assa.; it was first observed May 19th, 1892, and soon became common but disappeared about the end of May; this was a common species at Old Wives' Creek, Assa., and wherever there was brush at Wood Mountain and west to Frenchman's River and the ravines in the southern part of the Cypress Hills; common along Milk River, St. Mary's River and Lee's Creek, Cardston, Alberta; common on the International Boundary between Trail and Cascade, B.C., in the summer of 1902, found a nest on June 14th in a low bush not more than two feet from ground, made of dry grass, weeds and dirt, lined with fine dry grass; two eggs were quite fresh; at Crane Lake, Assa., June 11th, 1894, this species was common along Skull Creek where a number of nests were taken; it was also common in the east end of the Cypress Hills, among

the brush along the sources of Swift Current Creek; only one pair seen at Banff in the summer of 1891; quite common at Revelstoke, B.C. on May 30th, 1890, in a day or two they became scarce; first seen at Edmonton, Alta., May 11th, 1897, June 11th, found a nest on the ground, containing two eggs; nest composed of weeds, leaves, and dirt, lined with dry grass, eggs blue; common from Lesser Slave River to Peace River Landing, Lat. 56° 15' in June 1903; observed from Edmonton to Athabasca Pass, in June, 1898. (*Spreadborough.*)

This bird makes its appearance on the banks of the Saskatchewan in the month of May, but whether it breeds there or goes further north I am unable to say. (*Richardson.*) Not uncommon around Prince Albert, Sask.; I once found its nest with four unspotted blue eggs. (*Coubeaux.*) Common in the interior. (*Streator.*) Common east of the Coast Range; a summer resident. (*Fannin.*) In all visited localities of the interior; breeding at Lac la Hache, B.C. This extends Mr. Streater's nesting record of the species 150 miles further north. (*Rhoads.*)

MUSEUM SPECIMENS.

Nine; two taken at Indian Head, Assa., May, 1892; six at Edmonton, Alta., in June, 1897; one at Revelstoke, B.C., May 31st, 1890, all by Mr. Spreadborough.

Three sets of eggs; two sets of four each taken at Edmonton, Alta., on June 14th, 1898, and May 31st, 1897; one set of three eggs taken at Crane Lake, Assa, June 6th, 1894, all by Mr. W. Spreadborough.

757. **Gray-cheeked Thrush.**

Hylocichla aliciae (BAIRD) RIDGW. 1880.

Apparently common on the northeastern coast of Labrador as far north as Aillik. (*Bigelow.*) Rare in Ungava. Common in southeastern and southern portions of Labrador. Breeds wherever found in summer. Nest and eggs procured at Fort Chimo, June 28th, 1884. (*Packard.*) One specimen obtained in June, 1845, at Amarglik, near Godthaab, Greenland, and named *Turdus minor* by Professor Reinhart, is referred to this species as Mr. Turner finds this species to extend furthest north in Labrador. (*Macoun.*) One taken and others seen on the Magdalen Islands. (*Bishop.*) Taken at Fcr. Churchill, Hudson Bay. (*Wright.*)

I have not shot a specimen of this bird in the Montreal district yet, but have noticed some large thrushes which I have been unable to identify as I could not shoot them with my cane gun. (*Wintle.*) Not met with until we reached York Factory, where a female and two young just from the nest were taken in a dense willow thicket, July 13th. The young birds may be described as follows: Back and head dark olive-brown, each feather tipped with dusky and with a longitudinal spot of brown; rump and upper tail coverts, brownish spotted with rusty; lower parts white, slightly tinged on breast and sides with buffy, each feather tipped with a dusky bar, those on breast heavily marked, the marking decreasing in size posteriorly; throat almost unmarked; cheeks grayish, spotted with dusky; wings and tail olive-brown, the wing quills lighter on outer edges. I again met with the species, July 25th at Fort Churchill, where I saw several in stunted spruce woods. (*E. A. Preble.*) Migrant at Carberry, Manitoba; and reported common at Winnipeg by Hine. (*Thompson-Seton.*) Common at Aweme, Manitoba, as a migrant. (*Norman Criddle.*) One specimen of this species was secured at Indian Head, Assa., on May 23rd, 1892; there may have been many others, but all were believed to be Wilson's thrush, which was common at the time. Taken at Old Wives' Creek, Assa., May 30th, 1895. (*Spreadborough.*)

North to Yukon River; only found west of Rocky Mountains. (*Ross.*) This thrush is very abundant in the Anderson River region, not only wherever trees are to be had for nesting purposes, but also in situations where none exist. More than 200 specimens were taken at Fort Anderson and sent to the Smithsonian Institution. The greatest number was built on trees or in the usual manner, but some few of them were placed on the ground. One nest was also taken on the banks of the Wilmot-Horton River. (*Macfarlane.*) This species is common throughout all the northern portion of Alaska wherever willow and alder thickets afford it shelter. (*Nelson.*) This species is not common at St. Michael, and very likely breeds there but I never found their eggs. (*Turner.*) An adult male found dead on the ice near Point Tangent, Alaska, May 27th, 1898, and a male secured, June 10th, 1898, at Point Barrow. (*Witmer Stone.*) One adult specimen was taken at Sheep Creek, Kenai peninsula, Alaska, July 5th, 1901. (*Clapman.*) This thrush was a common summer resident

from Cape Blossom eastward to the head of Kowak River, Kotzebue Sound, Alaska. (*Grinnell*.)

BREEDING NOTES.—I have nests with sets taken in the Mackenzie delta by the Rev. I. O. Stringer and Mr. Young. Mr. Stringer found a nest with three eggs, 60 miles north of Point Separation, Mackenzie River, on June 12th, 1896. This nest was in a birch tree two feet from the ground. The nest is a deep cup-shaped structure of dry grass and mud. I have another nest and eggs that was built three feet from the ground in a willow growing on the banks of Peel River. This was taken June 23rd, 1898. Another nest and three eggs were found by Mr. Stringer at the terminus of the Cariboo Hills, Mackenzie delta, June 15th, 1897. (*W. Raine*.)

MUSEUM SPECIMENS.

Two; taken at Old Wives' Creek, Assa., in May, 1895, by Mr. W. Spreadborough.

One set of three eggs taken at Whale River, James Bay, in June, 1896, by Mr. George Bouchier.

757a. **Bicknell's Thrush.**

Hylocichla aliciae bicknelli RIDGW. 1882.

One specimen only known to be taken, by Mr. Robert Elliott, Bryanston, Ont., September 19th, 1898. (*W. E. Saunders*.)

758. **Russet-backed Thrush.**

Hylocichla ustulata (NUTT.) RIDGW. 1880.

Abundant at Agassiz, B.C., after May 10th, 1889; very common at Spence's Bridge and Kamloops, B.C., breeding in bushes along the Thompson River; common at Chilliwack and along the river to the head of Chilliwack Lake; only one observed at Huntington on the International Boundary in the autumn of 1901; first seen at Victoria, Vancouver Island, May 5th, 1893, and common by the 12th; an abundant summer resident, found at Nanaimo, Comox, Sooke and Stubb's Island in September. (*Spreadborough*.) At present this bird is known only from the coast of the southeastern portion of the territory where Bischoff obtained several specimens, in the vicinity of Sitka. (*Nelson*.) Tolerably common along Indian River, Sitka, Alaska, and on some of the small islands in

the bay. No young were obtained but they certainly breed. (*Grinnell*.) Abundant summer visitant at Chilliwack. (*Brooks*.) Very common in the coast region; breeds. (*Streator*.) A common summer resident west of the Coast Range; I have found it as far north as Dease Lake in Cassiar. (*Fannin*.) Abundant in British Columbia, coastwise. (*Rhoads*.) Common on Queen Charlotte Islands, B.C. Eight specimens were taken in various parts of the islands. It was very abundant at Clew on the north side of Cumshewa Inlet, but was not seen at all at our camp at the head of the inlet where we found *H. a. verecunda*. (*Osgood*.)

MUSEUM SPECIMENS.

Eighteen; two taken at Agassiz, B.C., May, 1889; five at Chilliwack, B.C., June, 1901; one at Hastings, B.C., April 16th, 1889, one at Huntington, B.C., September 24th, 1901, eight at Victoria, Vancouver Island, and one at Comox, Vancouver Island, May, 1893, all by Mr. W. Spreadborough.

A series of five eggs taken on Vancouver Island by the Rev. George Taylor.

758a. **Olive-backed Thrush.**

Hylocichla ustulata swainsonii (CAB.) RIDGW. 1880.

Specimens were obtained, June 13th and in July, 1860, at Rupert House by Drexler. (*Packard*.) Common on the Moose River; and observed as far north as Fort George, James Bay, in June, 1896. (*Spreadborough*.) A tolerably common summer migrant in Newfoundland. (*Reeks*.) Not as common as the hermit thrush at Halifax, N.S. (*Downs*.) Taken at Cove Head Road, Prince Edward Island, July 5th, 1888; at numerous points on Cape Breton Island, 1898. (*Macoun*.) Very abundant on Prince Edward Island, almost equalling in numbers the hermit thrush. (*Dwight*.) A summer resident, breeding in abundance at St. John, N.B. (*Chamberlain*.) Breeds on the Magdalen Islands, but is not common. (*Bishop*.) Generally distributed but not so common in the Gulf of St. Lawrence as in northern New England. (*Brewster*.) A scarce and transient visitant at Montreal. I have observed only three examples of this thrush on the island of Montreal. I believe Mr. Dunlop found a nest with eggs of this species, a number of years ago, on the island of Montreal. (*Wintle*.) This species is common enough in eastern Quebec in summer. (*Dionne*.)

A rare summer migrant at Ottawa. (*Ottawa Naturalist*, Vol. V.) I have only noticed this bird once in eastern Ontario. I picked up a dead bird by the roadside near Lansdowne about the end of April, 1898. (*Rev. C. J. Young*.) A common summer resident in Parry Sound and Muskoka districts. (*J. H. Fleming*.) Abundant everywhere in Algonquin Park, Ont., in the summer of 1900. (*Spreadborough*.) A passing migrant at Guelph, Ont. (*A. B. Klugh*.) The song of this species was heard at Bull Head Point, Lake Winnipeg, on the morning of June 16th. The birds were rather common at Norway House, and were seen or heard daily between there and Oxford House. They were common at Oxford House and a specimen was taken at that point; while descending the streams between Oxford House and York Factory we found them abundant; every wooded islet in the lakes seemed to be the home of a pair, and wherever we camped we heard their songs, which began soon after midnight; a nest found in a bush overhanging Jack River, between Knee and Swampy lakes, July 6th, contained eggs on the point of hatching. At York Factory, where we took two specimens, the species was apparently less abundant, and beyond that point we did not meet with it. Baird recorded a specimen collected at Moose Factory in July, 1860, by Drexler. (*E. A. Preble*.) After giving a number of references regarding the occurrence of this bird in Manitoba, Mr. Thompson-Seton says he is disposed to question them all. Yet he speaks of its occurrence at Carberry, Manitoba, and apparently breeding; while not giving an opinion I may say that both this form and the gray-checked thrush were taken in the spring of 1892 at Indian Head, Assa.; first seen on May 16th, 1894, at Medicine Hat, Assa.; the next day they were abundant and in a day or two there were only a few stragglers left, a few remained to breed as they were seen later; a few were observed at Old Wives' Creek, Assa., in the latter part of May, 1895; abundant from the mouth of Lesser Slave River to Peace River Landing, June, 1903; first seen at Edmonton, Alta., May 8th, 1897; afterwards it became common and nests and eggs were taken; common from Edmonton to the Athabasca Pass, in June, 1898; common in the foothills south of Calgary to Crow's Nest Pass; this was a common summer resident at Banff, Rocky Mountains, in 1891; a few seen at Deer Park, Columbia River, and breeding in numbers at Robson late in June, 1890; first seen at Elko, B.C., May 14th, 1904; common by the 21st. (*Spreadborough*.)

Not uncommon at Prince Albert, Sask.; breeding in the vicinity. (*Coubeaux.*) One specimen secured at Grand Rapids of the Saskatchewan. (*Nutting.*) This thrush arrives on the banks of the Saskatchewan in May and during the summer haunts the alder thickets and dense willow groves that skirt the marshes. (*Richardson.*) North to Lapierre's House, on the Mackenzie River; abundant. (*Ross.*) A common breeding bird from Clinton, B.C., to Quesnel. (*Brooks.*) Southern mainland, east of Coast Range, B.C. (*Fannin.*) A female and young male in nesting plumage were shot at Nelson, B.C., where they were fairly abundant. (*Rhoads.*) On the coast of Behring Sea, where the grey-cheeked thrush is abundant, this species is very rare or does not occur at all. In the interior, however, it appears to increase in numbers as the distance from the sea-coast increases. (*Nelson.*) A single specimen was obtained from Fort Yukon, Alaska; it is apparently not common in any district of Alaska. (*Turner.*)

BREEDING NOTES.—At Edmonton, Alta., on May 31st, 1897, I found what I took to be an olive-back's nest. It was built upon the top of a willow stump that had been chopped off about sixteen inches from the ground. I saw the bird leave the nest and tried to get a shot, but she was too wary. I shot a male near the nest at the time. The nest was composed of weeds lined with dry grass, eggs four, blue and quite fresh. June 11th found another nest and four eggs in the fork of a willow about four feet from the ground; nest composed of weeds and dirt, lined with dry grass; eggs light-blue with brownish spots. (*Spreadborough.*) At Lake Nominique, about 100 miles north of Ottawa, this thrush takes the place of Wilson's thrush. On July 1st, 1901, a nest with two young birds was found in a maple tree, six feet from the ground. It was made of grass and green moss and lined with dry leaves and rootlets; nest 4 x 3 and 2'60 x 2. (*Garneau.*) A nest found June 16th, 1902, at Scotch Lake, York Co., N.B., had four fresh eggs. Nest composed of twigs and moss, lined with skeleton leaves, 30 feet up in a tall spruce, and eight feet out on the limb. (*W. H. Moore.*)

MUSEUM SPECIMENS.

Eight; one at Medicine Hat, Assa., May, 17th, 1894, one at Peace River Landing, June 18th, 1903, three at Edmonton, Alta., May, 1897, and three at Elko, in May, 1904, all by Mr. W. Spreadborough.

Three sets of eggs; one of four taken on the upper Hamilton River, Ungava, July 3rd, 1894, by Mr. A. P. Low; one of four taken at Edmonton, Alta., June 11th, 1897, and one of two taken at Trail, B.C., June 14th, 1902, by Mr. W. Spreadborough

758c. **Alma's Thrush.**

Hylocichla ustulata alma OBERHOLSER. 1898.

Rocky Mountain region of the United States. (*Oberholser*.) This is the common thrush of the Yukon basin, occurring everywhere from Log Cabin to Circle, perhaps in largest numbers at Caribou Crossing and Lake Marsh. Fifteen miles above Fort Yukon I took one and saw others, August 21st. We saw many nests, usually 6 to 10 feet from the ground in thick growths of young spruces, but none contained eggs. A nest containing four young just hatched, which I found at Caribou Crossing, June 25th, was about eight feet from the ground in a thicket of small spruces. The nest resembled that of *H. u. swainsoni*. At Miles Cañon July 11th, we saw young able to fly. Osgood took young in spotted plumage, July 31st, but those taken August 20th had assumed first winter plumage. They were usually silent by day, but sang frequently during the short nights. At Caribou Crossing, the last day of June, their song could be heard constantly from 8 p.m. to 8 a.m., one taking up the strain as another stopped. The song is much superior to that of *Hylocichla aonalschikæ* and almost equal to that of *H. fuscescens*. It has whispered notes like that of *H. mustelinus*. By the middle of July the song season was practically over though we heard one of the birds singing, July 23rd. When the nights became really dark in August, I often heard the call-note of this bird near our camp between 2 and 3 a.m. (*Bishop*.) An adult male from Sheep Creek, Kenai peninsula, July 5th, 1901, extends the breeding range of this form. Several seen on Kenai during the summer. A nest containing two fresh eggs was found the latter part of June. (*Chapman*.)

759. **Alaska Hermit Thrush.**

Hylocichla guttata (PALLAS) BREWSTER. 1902.

Occasionally seen in the thick brush at Hastings, Burrard Inlet, in April, 1889; seen on nearly all the mountains at an altitude of 5,000 feet at Chilliwack Lake, B.C., in July, 1901; first seen on

April 21st, 1893, at Victoria, Vancouver Island, after this date they became common, but most of them left early in May. Some reside all year, as I saw them in January, 1890. (*Spreadborough.*) British Columbia. (*Lord.*) Found only during the autumn migration, and then in the coast region. (*Streator.*) West of the coast region; near the coast. (*Fannin.*) Summer resident on mountain tops near Chilliwack. (*Brooks.*) On the coast of British Columbia in migrations. Probably breeds in the Coast Range and mountains of Vancouver Island. I was surprised to again meet with this species at Field, where I saw many and secured three birds. One of these in spotted nesting plumage proves that the summer habitat of the dwarf thrush is far more extended than formerly supposed. (*Rhoads.*) Not uncommon at Vancouver City, Lulu Island and Sea Island, B.C., in the spring of 1894. (*E. F. G. White.*)

Very common everywhere at Sitka, Alaska, especially on the small wooded islands; at low tide they were frequently to be seen feeding among the kelp and rockweed along the shore. (*Grinnell.*) Specimens of this bird are in the National Museum collection from various points along the timbered coast of southeastern Alaska, including Cook's Inlet, Sitka, Kadiak and Chugatchik Bay. (*Nelson.*) Rather rare on Queen Charlotte Islands. Two adult females were taken at the head of Cumshewa Inlet, and one male on Prevost Island, June, 1900. (*Osgood.*) Mr. Osgood segregates a new form out of this species to which he gives the subspecific name *verecunda*. If this name holds good it will apply to all British Columbian coast records. (*Macoun.*) Two male birds in fresh fall plumage were taken at Hope, Cook's Inlet, August 26th and 29th respectively; these are very olivaceous on the upper parts and agree with a bird taken at Circle City, Alaska, August 18th, 1899. [The above specimens are considered *verecunda* by Mr. Osgood.] Two specimens were taken at Hope and Tyonek, Cook's Inlet, Alaska, September 7th and 14th respectively. These are in fresh fall plumage and are somewhat more olivaceous than fall birds from Kadiak. (*Osgood.*) Mr. Osgood considers the latter true *aonalaschkæ* and cites Kadiak Island as the home of the type. (*Macoun.*)

We heard several singing at Skagway, and Osgood took one at Haines, June 2nd, 1899. At Glacier they were tolerably common, and we secured several, but they were very shy, keeping in the thickets during the day and singing several hours in the evening

from the topmost spray of some spruce well up on the mountain side. Several thrushes' nests in small spruces six to eight feet from the ground were empty, for which condition the abundant red squirrels were probably responsible. At Log Cabin and Bennett we heard a few singing and at Caribou Crossing, B.C. (Lat. 60°) Osgood took one, June 27th. (*Bishop.*)

MUSEUM SPECIMENS.

Two; one taken at Hastings, B.C., in April, 1889; and one at Victoria, Vancouver Island, April 27th, 1893, both by Mr. W. Spreadborough.

759a. **Audubon's Hermit Thrush.**

Hylocichla guttata auduboni (BAIRD) BREWSTER. 1902.

This species was not observed during the survey until the close of the second season, when specimens were taken in the Rocky Mountains near Chief Mountain Lake, under circumstances that left no doubt of its breeding in the vicinity. (*Cones.*) Common summer resident in thick woods on Sophie Mountain at an altitude of 4,400 feet, on the International Boundary, B.C., in 1902; in July, 1897, this form was found in the Rocky Mountains, south of Calgary; and in August in Crow's Nest Pass; rather rare at Elko, B.C., in May, 1904. (*Spreadborough.*)

MUSEUM SPECIMENS.

Seven; one taken at Edmonton, Alta., May 6th, 1897; one at Banff, Rocky Mountains, June 18th, 1891; one at Canmore, Rocky Mountains, May 28th, 1891; one at Toad Mountain, near Nelson, B.C., July 15th, 1890; two at Cascade, B.C., July 15th, 1902, and one at Elko, B.C., May 10th, 1904, all by Mr. W. Spreadborough.

759b. **Hermit Thrush.**

Hylocichla guttata pallasii (CAB.) FAXON & ALLEN. 1900.

Observed only twice, July 4th and 24th, 1896, both times in the interior of the peninsula of Labrador; rare. (*Spreadborough.*) A male taken at Chateau Bay, eastern Labrador, July 14th, 1891. (*Norton.*) A common visitor in Newfoundland. (*Reeks.*) An abundant summer resident at Halifax, N.S. (*Dowms.*) One individual was seen after a gale on October 23rd, 1902, on Sable Island, N.S. (*James Bonteillier.*) Apparently common in woods

at Brackley Point, Prince Edward Island, July, 1888; not rare on Cape Breton Island, 1898. (*Macoun.*) Breeds abundantly about St. John, N.B. (*Chamberlain.*) Breeding abundantly at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Observed everywhere in the Restigouche valley, N.B. (*Brittain & Cox.*) Slightly more abundant than the olive-backed thrush on Prince Edward Island. (*Dwight.*)

Common; breeding on most of the Magdalen Islands. (*Bishop.*) On Anticosti and everywhere on the north shore of the St. Lawrence this is an abundant species. (*Brewster.*) Not rare at Lake Mistassini, Que.; breeding in June, 1885. (*J. M. Macoun.*) Common summer resident on Montreal Island. Breeds in the city of Montreal and in Mount Royal park. This is the most common thrush here. Found a nest of this thrush on a grassy bank in a small wood at St. Bruno, containing four incubated eggs, May 24th, 1885. (*Wintle.*) Common in certain places in eastern Quebec in summer. (*Dionne.*)

A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) I heard this bird frequently on the Magdalen Islands. Have found it breeding near Lansdowne, Ont., as well as on Wolfe Island, near Kingston, Ont. (*Rev. C. J. Young.*) A common summer resident in Parry Sound and Muskoka districts. I took a nest on May 17th, 1897, which was built among dead leaves at the base of a dead ironwood sapling and contained four eggs. (*J. H. Fleming.*) A passing migrant at Guelph, Ont. (*A. B. Klugh.*)

A common summer resident of woodlands in Manitoba. (*Thompson-Seton.*) First seen at Medicine Hat, Assa., May 11th, 1894, and last seen on the 15th, a rare migrant; a common summer resident at Banff, Rocky Mountains in 1891; observed a few in thick woods near White Mud River, Lat. $56^{\circ} 30'$, in June, 1903; first seen at Edmonton, Alta., May 3rd, 1897, last seen May 10th, all were migrants; one shot in Eagle Pass, west of Revelstoke, B.C., May 9th, 1890. (*Spreadborough.*) North to Fort Simpson on the Mackenzie River. (*Ross.*) Abundant at the Grand Rapids of the Saskatchewan. (*Nutting.*) First noted between Edmonton and Athabasca Landing, May 22nd, 1888; common between that place and Lesser Slave River; very common down the Athabasca to Fort McMurray, Lat. $56^{\circ} 40'$; common up the Clearwater

River and on Methye Portage and by Methye Lake to Isle à la Crosse. (*J. M. Macoun.*)

That *pallasii* and not *auduboni* breeds in the region around Lake La Hache, B.C., is attested by the skins in the collection. At least two points are established by skins in the collection—1st, the breeding of *aonalaschkae* in the Rocky Mountains of British Columbia; 2nd, the breeding of *pallasii* west of the Rockies and south of the 52nd parallel. (*Rhoads.*) This was the form of hermit thrush occurring at Quesnel in northern British Columbia. A skin from 158-Mile House seems closer to the typical form. (*Brooks.*) About 15 miles below Little Salmon River, Yukon district, July 22nd, we secured a pair whose nest, containing four well-grown young, Osgood had found the evening before. Far from selecting the secluded nesting site usual with this species, this pair had placed their nest between two small bunches of flowers on an open hillside, just above a small piece of burnt poplar woodland, and exposed to the full glare of the sun. (*Bishop.*)

BREEDING NOTES.—Breeds from May to July at Scotch Lake, N.B. The nest is placed on or near the ground and is composed of leaves, grass, bark and roots. Eggs three. (*W. H. Moore.*) A nest found on Kettle Island in the Ottawa River near Ottawa was built on the ground in a low shady spot. It was built of withered leaves, weed stalks and bark strips, lined with fine grass; eggs four, of a uniform greenish blue colour. (*G. R. White.*) I have noticed many individuals in the township of Clarendon in North Frontenac, Ont., during the past season (1903) and have seen eggs that were taken near Trout Lake in a spruce and cedar swamp. The eggs are lighter in colour and somewhat larger than those of Wilson's thrush, and are readily distinguished by the practised eye. (*Rev. C. J. Young.*)

MUSEUM SPECIMENS.

Seven; one purchased with the Holman collection in 1885; five taken at Ottawa in April, 1890, by Dr. F. A. Saunders; one at London, Ont., September, 22nd, 1886, by Mr. W. E. Saunders.

One set of four eggs taken in North Renfrew, Ont., June 5th 1889, by Rev. C. J. Young.

CCLVII **TURDUS**. LINNÆUS. 1758.760. **Red-winged Thrush.***Turdus iliacus* LINN. 1758.

One sent to Dr. Paulsen in 1845, and another shot at Frederikshaab, Greenland, October 30th, 1845. (*Arct. Man.*)

CCLVIII. **MERULA** LEACH. 1816.761. **American Robin.***Merula migratoria* (LINN.) SWAINS. 1827.

An adult male shot near Kornuk in the Godthaab Fjord, Greenland, in 1865. (*Arct. Man.*) Locally common on the northeastern coast of Labrador. Large flocks seen at Port Manvers on September 6th, apparently from the north. (*Bigelow.*) Abundant throughout the country. Breeding plentifully at Fort Chimo, Ungava. (*Packard.*) Common throughout the whole trip from Moose Factory to Fort Chimo, Ungava. (*Spreadborough.*) Two specimens, a male and a female were taken at Northwest River, Labrador, July 28th, 1891. (*Norton.*) A very common summer resident in Newfoundland. (*Recks.*) One seen August 31st, 1899, on the Humber River, Newfoundland; said to be common. (*Louis H. Porter.*) One of the commonest birds in Nova Scotia. A few remain all winter. (*Downs.*) A single individual was seen on Sable Island, N.S., on March 28th, May 8th, and October 24th, 1902. (*James Bouteillier.*) Quite common at Brackley Point, Prince Edward Island, 1888; common on Cape Breton Island, 1898. (*Macoun.*) Very abundant in the more open parts of Prince Edward Island. (*Dwight.*) Very abundant in New Brunswick. A few remaining all winter. (*Chamberlain.*) A common summer resident at Scotch Lake, York Co., N.B. (*W. H. Moore.*) Very common in the Restigouche valley, N.B. (*Brittain & Cox.*) Abundant on the Magdalen Islands; breeding everywhere. (*Bishop.*) Common everywhere on all the islands and shores of the Gulf of St. Lawrence, but generally near habitations. (*Brewster.*) Common at Lake Mistassini, Que. (*J. M. Macoun.*)

An abundant summer resident around Montreal. Breeds in the city and in Mount Royal park. Nests with eggs found from May 18th to July 24th. Usually observed here from March 24th to November 8th. (*Wintle.*) This is one of the most common birds in eastern Quebec in summer. (*Dionne.*) An abundant summer

resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Very common everywhere in eastern Ontario. (*Rev. C. J. Young*.) Common about the settlements in Parry Sound and Muskoka districts. A few have wintered at Gravenhurst. (*J. H. Fleming*.) Abundant in the Algonquin Park, Ont. Three nests in sight of the buildings at Cache Lake, 1900. (*Spreadborough*.) Abundant in the vicinity of London, Ont. The crop of wild berries has much to do with the occasional notes of the occurrence of this species in winter; that a few winter in some years is certain. While they nest usually in trees, I found one on the projecting end of a rail of a snake-fence and have seen numbers on buildings; and once saw one building a nest in a brush-heap. (*W. E. Saunders*.) An abundant summer resident at Guelph, Ont. Arrives about March 8th, and leaves about November 12th. (*A. B. Klugh*.) Found throughout the region traversed, but seldom seen elsewhere than in the vicinity of the posts, where, however, they were very common. Many old and young were seen at Fort Churchill during the latter part of July. On our return trip we noted the species on Hayes River, August 30th, Steel River, August 31st, Hill River, Sept. 4th and between Oxford and Windy lakes, Sept. 12th. (*E. A. Preble*.) Common at York Factory, Hudson Bay. (*Dr. R. Bell*.) Fort Churchill, Hudson Bay. (*Wright*.)

Found in abundance at Pembina where it was breeding in the wooded river-bottom. In this latitude, the eggs are generally laid during the middle and latter part of June, and I scarcely think that more than one brood is reared annually. It extends from Pembina to the Rocky Mountains on the 49th parallel. (*Coues*.) A common resident in half-open woods and around dwellings throughout Manitoba. (*Thompson-Seton*.) An abundant summer resident at Aweme, Manitoba; arrives about April 10th and leaves towards the end of October. (*Norman Criddle*.) An abundant summer resident at Indian Head, Assa., first seen April 13th, 1892, and became common by the 18th of the same month; first seen at Medicine Hat, Assa., April 11th, 1894, building by the 16th May, first eggs May 22nd; a common summer resident throughout the whole district of Medicine Hat, Crane Lake, Swift Current Creek and the Cypress Hills; in 1895 this species was found scattered over the whole of southern Assiniboia and Alberta wherever there was brush; it is essentially a bird of civilization and is constantly

found in the neighbourhood of trading posts and lonely settlers; a common summer resident at Banff, Rocky Mountains, replaced to the west by *propinqua* [?] (*Macoun.*) A very abundant summer visitor at Prince Albert, Sask.; breeding throughout the country. (*Coubeaux.*) Very abundant at Grand Rapids of the Saskatchewan, though nonwere seen at Chemawawin. (*Nutting.*) Very abundant between Edmonton and Athabasca Landing; more plentiful at the latter place than anywhere else; only one pair seen between Athabasca Landing and Lesser Slave River; none down the Athabasca to Fort McMurray, there very common; none up the Clearwater to Methye Portage, but common there; seen here and there where there are clearings from Methye Lake to Isle à la Crosse. (*J. M. Macoun.*) Quite common at Edmonton, Alta., first seen April 16th, by May 6th many were building nests and early in June eggs were hatched; common in the foothills to the International Boundary; quite common from the mouth of Lesser Slave River to Peace River Landing, Lat. $56^{\circ} 15'$, in June, 1903. (*Spreadborough.*) This species appeared at Carlton House on April 22nd, 1827, in Lat. 53° ; the same season it reached Fort Chipweyan in Lat. $58\frac{3}{4}^{\circ}$ on May 7th and Fort Franklin in Lat. 65° on the 20th of the same month. (*Richardson.*) North to Lapiere's House, on the Mackenzie River; abundant. (*Ross.*) This is a common bird both at Fort Anderson and on the banks of the Swan and Wilmot-Horton rivers in the Barren Grounds. (*Macfarlane.*) Rare migrant at Chilliwack. (*Brooks.*)

Throughout the entire wooded portion of Alaska this bird is found more or less numerous during summer, and along the treeless coast of Behring Sea and Kotzebue Sound it appears merely as a straggler in the migrations. (*Nelson.*) This species is quite common at Fort Yukon, where it breeds. (*Turner.*) One individual seen on St. Paul Island, Alaska, in October, 1872. (*Elliott.*) The miners that we met at Hope and Sunrise, Cook's Inlet, Alaska, reported that the "regular eastern robin" had often been seen there. We did not observe it ourselves in the month of August, the time of our stay at these points. (*Osgood.*) Tolerably common at Haines and Skagway, but not at Glacier. At Haines I took a female and four well-incubated eggs, June 2nd. Robins were common at Log Cabin, June 15th, and were found regularly but in gradually decreasing numbers until August 1st, when the last was noted near Sixty-mile Creek. A flock seen

July 29th, showed that the southern migration had commenced. We found an empty nest 30 miles below Dawson and heard that the birds bred near Fort Yukon. Although robins were by no means common at Caribou Crossing, I found, on June 25th, 13 empty nests, most of them evidently built that year and four empty nests of the Alma thrush, in a small patch of spruces. The red squirrels which lived in a hollow tree near by probably knew of the location of most of these nests. Osgood took a well grown young robin here on June 26th. (*Bishop.*)

BREEDING NOTES.—This species nests at Scotch Lake, N.B. from April to August. Four broods have been hatched in one nest in one season. The nest always has earth in its composition and is lined with leaves of grass; eggs three to five; I have known the birds to move the eggs from one nest to another when the first place had become too public. The period of incubation is ten or eleven days and the young stay in the nest fourteen days. (*W. H. Moore.*) Nests are placed on stumps and fences, in sheds and around buildings and in trees almost from the ground to 50 feet up in large trees. The nest is made of grass with a bed of mud and a lining of grass. Eggs taken at Ottawa in April, May, June and July. (*Garneau.*) Nest very bulky, composed of vegetable matter, leaves, moss, stems and weeds, grass, hair and wool; inside is a neat cup of mud lined with fine vegetable matter; eggs five of a rich greenish blue colour. No markings or spots. (*G. R. White.*)

MUSEUM SPECIMENS.

Eighteen; four taken at Ottawa in April, 1888, by the writer; two at Ottawa by Dr. F. A. Saunders in September, 1891; one at Hamilton, Ont., by Mr. McIlwraith, on March 3rd, 1887; one at Indian Head, Assa., April 19th, 1892; three at Medicine Hat, Assa., in May, 1894; two at Edmonton, Alta, April, 1897; two at Banff, Rocky Mountains in May, 1891, all by Mr. W. Spreadborough. Also an albino taken in 1891, at Billings Bridge, near Ottawa.

Five sets of eggs; one taken at Fort Chimo, Ungava, June 13th, 1896, by Mr. E. Bouchier; one set of four eggs taken on the Upper Hamilton River, Ungava, July 5th, 1894, by Mr. A. P. Low; two sets of four each taken at Edmonton, Alta., on June 4th and 20½

12th, 1897, by Mr. W. Spreadborough; one set of four eggs taken at Ottawa, Ont., May 24th, 1898, by Mr. F. K. Whiteaves.

761a. **Western Robin.**

Merula migratoria propinqua RIDGW. 1880.

This form was first seen at Banff, Rocky Mountains where it was in some numbers; at Revelstoke, B.C. it arrived on April 10th, 1890, and soon became common; it bred in large numbers at Revelstoke, Deer Park, and Robson on the Columbia River, but curiously it was very wild and difficult to shoot; common on the International Boundary between Trail and Cascade in 1902; found a nest on a fence overhung with brush near Trail; abundant everywhere in the Okanagan valley, B.C., in April, 1903; abundant in all parts of the interior of British Columbia, but especially so at Spence's Bridge; builds a different nest from the eastern one; abundant at Chilliwack, Hastings, and Huntington in the Fraser River valley in 1901; a very abundant species in all parts of Vancouver Island, only partially migratory, many building by the middle of April. (*Spreadborough.*)

British Columbia. (*Lord.*) Very common everywhere; breeds. (*Streator.*) Abundant throughout the province; partially migratory; a number winter on Vancouver Island. (*Fannin.*) Abundant resident at Chilliwack. (*Brooks.*) Uniformly abundant everywhere in British Columbia. (*Rhoads.*) A few adults were observed throughout the summer among the more open parts three or four miles inland from Sitka, along the Indian River. Several large flocks of juveniles appeared on July 25th and afterwards were common. (*Grinnell.*) Common on the Queen Charlotte Islands. Its time of arrival at Massett, from 1891 to 1898, ranged from February 20th to March 16th. (*Osgood.*)

MUSEUM SPECIMENS.

Twenty-three; three taken at Revelstoke, B.C., in April, 1890; one at Robson, Columbia River, B.C., June, 26th, 1890; one at Trail, B.C., June 10th, 1902; one at Penticton, B.C., April 27th, 1903; two at Agassiz, B.C., May, 1889; two at Hastings, Burrard Inlet, B.C., April, 1889; five at Chilliwack, B.C., May, 1901; six at Huntington, B.C., in October, 1901, and two at Victoria, Vancouver Island, in April, 1893, all by Mr. W. Spreadborough.

Three sets of eggs; two of four each taken at Victoria, Vancouver Island, in May, 1889, by Rev. George Taylor; one at Trail, B.C., of four eggs, taken June 5th, 1902, by Mr. W. Spreadborough.

CCLIX. **IXOREUS** BONAPARTE. 1854.

763. **Varied Thrush.**

Ixoreus naevius (GMEL.) RICHMOND, 1902.

This species reached Revelstoke, B.C., by April 9th, 1890; for a few days it was common in the thick woods, but soon left the river bottom for the mountains; in June it was found on the mountains at Deer Park and was seen at Robson on June 24th at an altitude of 4,200 feet; observed a few near Rossland and on Sophie Mountain, B.C., along the International Boundary in 1902; common in all the thick woods along the Elk River, B.C., above Elko, breeding, in May, 1904; shot at Burrard Inlet, April 8th, 1889, quite common in the woods at this time, but very retiring, usually sings at night; one specimen seen at Chilliwack, June 8th, 1901, after this date they were common along Chilliwack River up to the lake, breeding in the mountain woods; abundant on Vancouver Island as a resident; they leave the low grounds about the middle of May and return about the middle of September; breeding on Mount Benson, near Nanaimo, at an altitude of 3,000 feet in July, 1893. (*Spreadborough.*) This bird was discovered at Nootka Sound on Capt. Cook's third voyage. (*Richardson.*) British Columbia. (*Lord.*) Very common at Seymour Creek, Stanley Park and Lulu Island, B.C. (*E. F. G. Whie.*) Common spring and fall migrant; found breeding on Mount Lehmen. (*Streator.*) Common west of Coast Range; partly migratory. (*Fannin.*) Common resident at Chilliwack. (*Brooks.*) Abundant on the coast of British Columbia, but by no means confined thereto, being found at high altitudes on all the mountains of the interior to the Rocky Mountain summits. (*Rhoads.*) Tolerably common in the deeper woods at Sitka, Alaska; first young, scarcely feathered, taken July 2nd. (*Grinnell.*) Occasionally seen or heard at Massett, Queen Charlotte Islands. Seen at Massett by Rev. Mr. Keen. Not abundant at Cook's Inlet, Alaska. Occasional individuals were seen and heard. (*Osgood.*) Two specimens were noted at Homer, Kenai Peninsula, Alaska, on September, 17th, 1901. (*Chapman.*) The varied thrush proved to be an

abundant summer resident of the Kowak valley, Kotzebue Sound, and was observed in every tract of spruces visited. In the fall of 1898 it remained common until the last of August. (*Grinnell.*) For a full account of the nesting habits of this species, see Pacific Coast Fauna of the Cooper Ornithological Club for November 14th, 1900. (*Macoun.*)

MUSEUM SPECIMENS.

Eighteen; five taken at Revelstoke, B.C., in April, 1890, one at Trail, B.C., June, 11th, 1902, one at Hastings, Burrard Inlet, B.C., April 8th, 1889, six at Chilliwack, B.C., and four at Elko, B.C., in May, 1904, all by Mr. W. Spreadborough.

763a. **Northern Varied Thrush.**

Ixoreus naevius meruloides (SWAINS.) RICHMOND. 1902.

One specimen was procured at Fort Franklin, Lat. $65\frac{1}{2}^{\circ}$, in May, 1826. It was the only one observed. (*Richardson.*) According to my own observations this bird is a regular and not rare summer resident in all congenial portions of northern Alaska, even within the Arctic Circle and undoubtedly extends its range as far north as the common robin. (*Nelson.*) One specimen of this species was obtained at Fort Yukon, Alaska, September 4th, 1876. It is not plentiful at any time. A second specimen was brought to me at St. Michael on May 27th, 1877, killed by a native. It is only a casual visitor to the coast. (*Turner.*)

BREEDING NOTES.—I have a nest and four eggs that were taken by Rev. Mr. Stringer in the east channel of the Mackenzie River, 40 miles from its mouth. The nest was found, June 5th, 1895, in a spruce tree, 15 feet from the ground. The nest is made of goose grass and is six inches in diameter and three inches deep. The eggs are a paler blue than a robin's, and are spotted with brown. (*W. Raine.*)

CLLX. **CYANECULA** BREHM. 1828.764. **Red-spotted Bluethroat.**

Cyanecula suecica (LINN.) BREHM. 1828.

On the 5th June, 1851, Dr. Adams found a flock of seven of these handsome birds feeding about some willows in the vicinity

of St. Michael. They were very shy and he succeeded in obtaining a single specimen. (*Nelson*.) I met with this species in the vicinity of Cape Blossom, Kotzebue Sound, Alaska, on July 3rd, 1899. The locality was the side of a ravine between two hills of the first range, about a mile back from the mission. This hillside was of a gentle slope, and was clothed with thick patches of dwarf willows, one to two feet in height. That this species was breeding at Cape Blossom, I have no doubt, but time did not permit as the *Penelope* arrived and I had to leave; I procured two specimens however. (*Grinnell*.)

CCLXI. **SAXICOLA** BECHSTEIN. 1803.

765. **Wheatear.**

Saxicola ananthe (LINN.) BECHST. 1803.

During the Western Union Telegraph Expedition, Mr. Dall saw several large flocks of these birds near Nulato, on May 23rd and 24th, 1868, and learned from the natives of their abundance upon the stony hill-tops back from the river. At St. Michael, Norton Sound, I found them to occur in spring and fall rather irregularly. They were not very rare, and the natives informed me that they were common upon the bare mountain tops in the interior, frequenting the summer range of the reindeer. The wheatear was also found at Port Clarence, in Behring Strait, at the head of Kotzebue Sound, at Cape Lisburne, by Dr. Bean. (*Nelson*.) This bird is very erratic in its occurrence in northern Alaska. Early in the spring migrations of 1882, we had these birds in comparative abundance near the station for a few days, but none remained to breed, and in the season of 1883, though a careful lookout was kept for them, not one was noticed. Those seen appeared to be travelling towards the northeast. (*Murdoch*.) Osgood saw two young wheatears at Circle City, Alaska, August 19th, 1899 and secured one. At the Aphoon mouth of the Yukon I shot one on August 27th, which fell into the river and was carried away by the rapid current, but I saw the white rump plainly. (*Bishop*.)

765a. **European Wheatear.**

Saxicola ananthe leucorhoæ (GMEL.) STEJN. 1901.

One male bird procured at Disco, Greenland, August 11th, 1891, and one on July 16th, 1892, by the Parry Relief Expedition.

(*Witmer Stone.*) Nests near Nachvak, but I did not see the nest. Nests have been taken by the Hudson Bay officers. (*Bigelow.*) One of the commonest land birds on Disco Island, Greenland, and around Disco Bay, both on the islands and mainland. I showed specimens to Eskimo from Nugumente and Frobisher Straits, and they instantly recognized them and said they had bred there but not in plenty. (*Kumlien.*) Known to breed in Greenland from the time of Otho Fabricus, and according to Holboel, extending its range to Lat. 73° and even further. It strays also to the westward and was observed by James Ross, May 2nd, 1830, in Felix Harbour, Lat. 70° , Long. $91^{\circ} 53' W.$, obtained on Shannon Island by the German expedition. (*Arct. Man.*) Coues obtained a single individual of this species at Henley Harbour, Labrador, August 25th, 1860. (*Packard.*) Breeds at Ivigtut, Greenland. (*Hagerup.*) One shot by George Moses on Indian Island, N.B., 1879. (*Chamberlain.*) A female was taken at Beaumaris, Muskoka, Ont., on September 24th, 1896, by Mr. Tavernier. It was among titlarks. The bird was identified by Mr. Ridgway and is the first record for Ontario. (*J. H. Fleming.*) I have before me three specimens of the wheatear all of which were shot at Godbout on the north shore of the St. Lawrence, near the point where the river widens into the gulf, by Napoleon A. Comeau. Two others were seen, making five individuals noted within thirteen months. Mr. Comeau writes me that in the female shot on June 9th, 1885, with her mate, "the eggs were pretty well developed." He adds, "I think there can be no question now about the bird breeding on our coast." (*Dr. Merriam in The Auk*, Vol II., 305.) Since my notes recorded by Dr. Merriam, I have secured additional specimens which throw light on the occurrence of the species near Godbout. I shot a young male, September 19th, 1885, and another specimen, November 9th, 1886. None were observed in 1887 or 1888. On September 5th, 1889, while visiting the Caribou Islands I saw five of these birds together but having no gun was unable to secure specimens. The next morning I saw one hopping around the door and was informed that a pair had been noticed several times during the month of August. (*Nap. A. Comeau in The Auk*, Vol. VII., 294.) James Clark Ross recorded a specimen of *nanthe* obtained at Felix Harbour, Gulf of Boothia, which is probably referable to the race recently recognized by Stejneger. The British Museum catalogue records

from Albany River an adult male *ananthe*, collected by Barnston, which is also probably referable to the Greenland race. If, as is probable, this bird inhabits the country to the north of Hudson Bay, its most natural route of migration would seem to be along the borders of the bay, and it is not unlikely that it is a regular breeder about the northern shores. (*E. A. Preble.*)

MUSEUM SPECIMEN.

One specimen taken in Hudson Strait by Dr. R. Bell in July, 1885.

CCLXII. **SIALIA** SWAINSON. 1827.766. **Bluebird.**

Sialia sialis (LINN.) HALDEM. 1843.

An occasionally common summer migrant in Newfoundland. (*Reeks.*) Uncommon in Nova Scotia, but seems to be commoner than formerly. (*Downs.*) Apparently very rare in the vicinity of St. John, N.B. (*Chamberlain.*) This species was common at Scotch Lake, York Co., N.B., up to about five years ago. Since then it has only, and rarely, been observed during spring and autumn migration. (*W. H. Moore.*)

An abundant summer resident on Montreal Island. Breeds in Mount Royal park. Nests with eggs found May 7th and 14th. (*Wintle.*) This bird is more or less common in eastern Quebec. Taken at Beauport. (*Dionne.*) A common summer resident around Ottawa. (*Ottawa Naturalist*, Vol. V.) Still common in eastern Ontario. Arriving this year (1901) third week in March. (*Rev. C. J. Young.*) Rare in Algonquin Park, Ont.; one pair nesting at C che Lake in 1900. (*Spreadborough.*) Again becoming commoner in Parry Sound and Muskoka districts; formerly it was one of the common birds. (*J. H. Fleming.*) Passing over in considerable numbers in the early days of March these beautiful and beneficial birds seem to think Toronto and its environs no longer a safe summer residence, though the reasons are not far to seek; on reaching us in the spring those few that rest a while seem to find agreeable diet in the white grubs which are found in considerable numbers in the flower heads of the sumach bushes; from diligent enquiries made in the neighbourhood of Whitney, Ont., I

concluded that these birds reach open spots in that district before there is much clear ground showing through the snow. (*J. Hughes-Samuel.*) Formerly abundant, but the disastrous "freeze" which extinguished the orange industry in northern Florida in 1894-95, nearly annihilated these birds also, and in the first nine months of 1895, I saw but four specimens; since then they have been increasing rapidly and are now familiar objects once more; they sometimes build in boxes and crevices around buildings, and a few sets of white eggs have been taken; one nest was found in a swallow's hole in the river bank in May, 1899, by W. A. Balkwill. (*W. E. Saunders.*) A common summer resident at Guelph, Ont.; arrives about March 10th, and leaves about October 20th. (*A. B. Klugh.*) Very abundant at Penetanguishene, Ont., in the spring of 1903. (*A. F. Young.*) The U. S. National Museum collection contains a specimen taken at Moose Factory, James Bay in the summer of 1881, by Walton Haydon. (*E. A. Preble.*)

A rare summer resident in Manitoba; they breed about the large towns; since I wrote as above it is gratifying to note that this species instead of being very rare has become quite common (1892) in the country along the Assiniboine, and nearly every grove of oak of any extent is found to have a pair making their home in it along with the purple martin. (*Thompson-Seton.*) A rare and breeding summer resident at Aweme, Manitoba. (*Norman Criddle.*)

BREEDING NOTES.—Nest built in a hole in a tree or fence post, composed of vegetable matter very loosely put together, lined with grass and a little hair; eggs four to five, pale blue; not marked. (*G. R. White.*) This species breeds around Ottawa in April, May, June and July, in a hole in a tree, a stump, a fence, or a telegraph post; its nest is made of grass and feathers and contains from three to six eggs. (*Garneau.*)

This species nests at Scotch Lake, N.B., in May and June; the nest is built in hollow fence poles and this year (1902) one pair built in a box put up for them in a grove in a pasture; five eggs were laid and incubated in 18 days. The young feathered out in 14 days and were in the nest 20 days after hatching; 30 days later they had four more eggs and the female was sitting. (*W. H. Moore.*)

MUSEUM SPECIMENS.

Seven; two taken at Ottawa by Dr. F. A. Saunders in April 1891; three at Ottawa in April, 1888, by the writer, and two at Toronto in May, 1886, by Mr. S. Herring.

Four sets of eggs; one set of four taken in Clarke's bush, Ottawa, May 19th, 1889, by Mr. F. K. Whiteaves; one of three eggs, at Ottawa, by Mr. W. A. D. Lees; one of three eggs taken at London, Ont., by Mr. W. E. Saunders; one set of four eggs taken at Port Hope, Ont., April 20th, 1900, by Mr. N. H. Meeking and presented to the museum by Mr. W. Raine.

767. **Western Bluebird.**

Siala mexicana occidentalis (TOWNS.) RIDGW. 1894.

Common at Penticton, but always in pairs, breeding in holes in trees in April, 1903; only saw one specimen at Trail, but observed a number at Cascade, B.C., on the International Boundary, in 1902; observed two at Baynes Lake, May 2nd, 1904, and two in the Kootanie valley about a week later; a few observed at Lytton, B.C., April 17th, 1889; in the woods at Hastings, Burrard Inlet; observed eight specimens at Chilliwack, B.C., October 24th, 1901, said to breed in the vicinity; first seen at Victoria, Vancouver Island, April 19th, 1893; found a nest near Victoria, May 23rd, and a nest with young at Nanaimo, July 10th. (*Spreadborough.*) Common on Vancouver Island and in British Columbia. (*Lord.*) Not very common on the coast, but an abundant summer resident in the interior. (*Streator.*) A common summer resident east and west of the Coast Range; more numerous on the coast. (*Fannin.*) Common summer resident; remained in the Fraser valley until January. (*Brooks.*) Not common anywhere, but less so in the district east of the Coast Range in British Columbia where it does not reach beyond the transition zone. (*Rhoads.*)

MUSEUM SPECIMENS.

Ten; one taken at Cascade, B.C., June 26th, 1902, two at Penticton, B.C., in April, 1903, two at Chilliwack, B.C., October 24th, 1901, one at Victoria, Vancouver Island, May 5th, 1893; two at Baynes Lake, B.C., May 2nd, 1904 and one at Elko, May 13th, 1904, all by Mr. W. Spreadborough.

768. **Mountain Bluebird.**

Sialia arcticus SWAINS. 1831.

On October 10th, 1898, I received a fine male mountain bluebird from E. H. Patterson of Brandon, Man. It had been collected two days before about two miles west of that city, and was in company with another individual of the same species. (*George E. Atkinson.*) A few individuals of this species were observed in the Rocky Mountains at Chief Mountain Lake, but no specimens were preserved. (*Coues.*) Tolerably common summer resident at Aweme, Manitoba. It breeds in the more hilly country; arrives about May 7th and leaves about October 15th. (*Norman Criddle.*) First seen at Medicine Hat, Assa., April 6th, 1894, after that a few were seen every day until May 9th, when the last one disappeared, they appeared to follow along the scattered timber in the valley of the South Saskatchewan as they passed to the north; a pair were found breeding June 15th, 1895, at Medicine Lodge, south of Wood Mountain, Assa., and another pair in a clay bank along Frenchman's River at Stony Creek Crossing; they were also breeding in numbers along Milk River, especially at Castelled Rocks in July, 1895; observed a few about the end of July, 1903, at Dunvegan, Peace River; observed nesting at Lacombe, near Edmonton, Alta., June 18th, 1897; common at Calgary and southward in the foothills to Crow's Nest Pass; common from the upper crossing of the Lob-stick River to Camp River, B.C., west of the Athabasca Pass; also seen in large flocks at the Henry House, Athabasca Pass, September 2nd, 1898; last seen September 25th; quite common and breeding early at Banff, Rocky Mountains, it built its nest chiefly under the eaves of houses at Banff; shot at Revelstoke, B.C., April 10th, 1890; quite common along the mountain slopes; breeding in Eagle Pass near Revelstoke in May, 1890; numbers of young birds were seen in the trees along Pass Creek at Robson, B.C., June 20th, 1890, the birds had nested in the cliffs about 700 feet above the water; common on the International Boundary between Trail and Cascade, B.C., breeding in holes in houses and trees; abundant at Penticton, south of Lake Okanagan, B.C., in April, 1903; they were in flocks of from ten to fifty; abundant in open places around Fernie and Elko, B.C., in April and May, 1904. (*Spreadborough.*) Local and not uncommon and breeding in suitable places at

Prince Albert, Sask. (*Coubeaux*.) Only one specimen of this beautiful bird was shot at Fort Franklin in July, 1825. It is merely a summer visitor to the Northwest Territories. (*Richardson*.) A pair nested in the Canadian Pacific storeroom at Donald, B.C., in May, 1894. (*E. F. G. White*.) Seen only east of the Coast Range. (*Lord*.) I found one or two pairs of this species breeding in the mountains at Ashcroft, B.C. (*Streator*.) A summer resident east of the Coast Range. (*Fannin*.) Common in migration at Chilliwack. (*Brooks*.) Abundant in northern and western interior portions of British Columbia. (*Rhoads*.) This species is recorded by Hartlaub from Dejáh, southeastern Alaska, April 20th and 21st; as it was seen on these two days only and at this point it cannot be at all common in the territory. (*Nelson*.)

BREEDING NOTES.—Found nesting in a hole in a clay butte at Medicine Lodge, south of Wood Mountain, June 14th, 1895. The nest was wholly composed of the outer bark of the old stems of *Bigelovia graveolens*, a composite plant that grew in profusion near the site of the nest. It contained seven light blue eggs. Another nest taken under the same conditions along Frenchman's River, Assa., on June 21st, was built of the outer bark of sage brush (*Artemisia cana*) and contained the same number of eggs. (*Macoun*.)

MUSEUM SPECIMENS.

Thirty; four taken at Medicine Hat, Assa., in April, 1894; two at Canmore, Rocky Mountains, May 29th, 1891; seven at Banff, Rocky Mountains, in April, 1891; six at Revelstoke, B.C., April, 1890; one at Trail, B.C., June 2nd, 1902; four at Penticton, B.C., April, 1903; three at Spence's Bridge, B.C., June, 1889; three at Fernie, B.C., April, 1904, all by Mr. W. Spreadborough.

One set of seven eggs taken along Frenchman's River, Assa., June 21st, 1895, by the writer.

ADDENDUM.

The notes on and references to the species included in the first two parts of this Catalogue are so voluminous that it is impossible to include them in the present part and a complete addendum will, it is hoped, be published in the near future. The few additions which follow have, however, been thought of sufficient importance to publish at once.

38. **Long-tailed Jaeger.**

On October 8th, 1902, Captain Fellows, an English gentleman, while shooting in the Clandeboye marsh, Man., procured a young specimen of this species, and later in the same year the "Free Press" newspaper announced the capture of another in the territories. (*George E. Atkinson.*)

154. **Long-tailed Duck.**

On October 19th, 1899, the only specimen of this species I have heard recorded for Manitoba, was collected at Whitehead Lake, southern Manitoba, by Mr. H. W. O. Boger, of Brandon. (*George E. Atkinson.*)

170. **Ross's Snowy Goose.**

On September 20th, 1902, a specimen of this bird was taken by a young lad named F. Marwood, and later the mutilated skin fell into my hands. I subsequently heard that in 1901 two other specimens had been taken. (*George E. Atkinson.*)

262. **Buff-breasted Sandpiper.**

I doubted the correctness of this species breeding at Dunnville, Ont., as mentioned by Mr. McIlwraith in his "Birds of Ontario." This doubt I expressed in Part I, page 108. Some correspondence ensued and Mr. W. E. Saunders, of London, Ont., at the request of Dr. McCallum, examined the specimen and found that the bird referred as above was really Wilson's phalarope. This species is just as rare as the other, and the fact of its breeding at the mouth of the Grand River is of great interest to bird lovers.

378. Burrowing Owl.

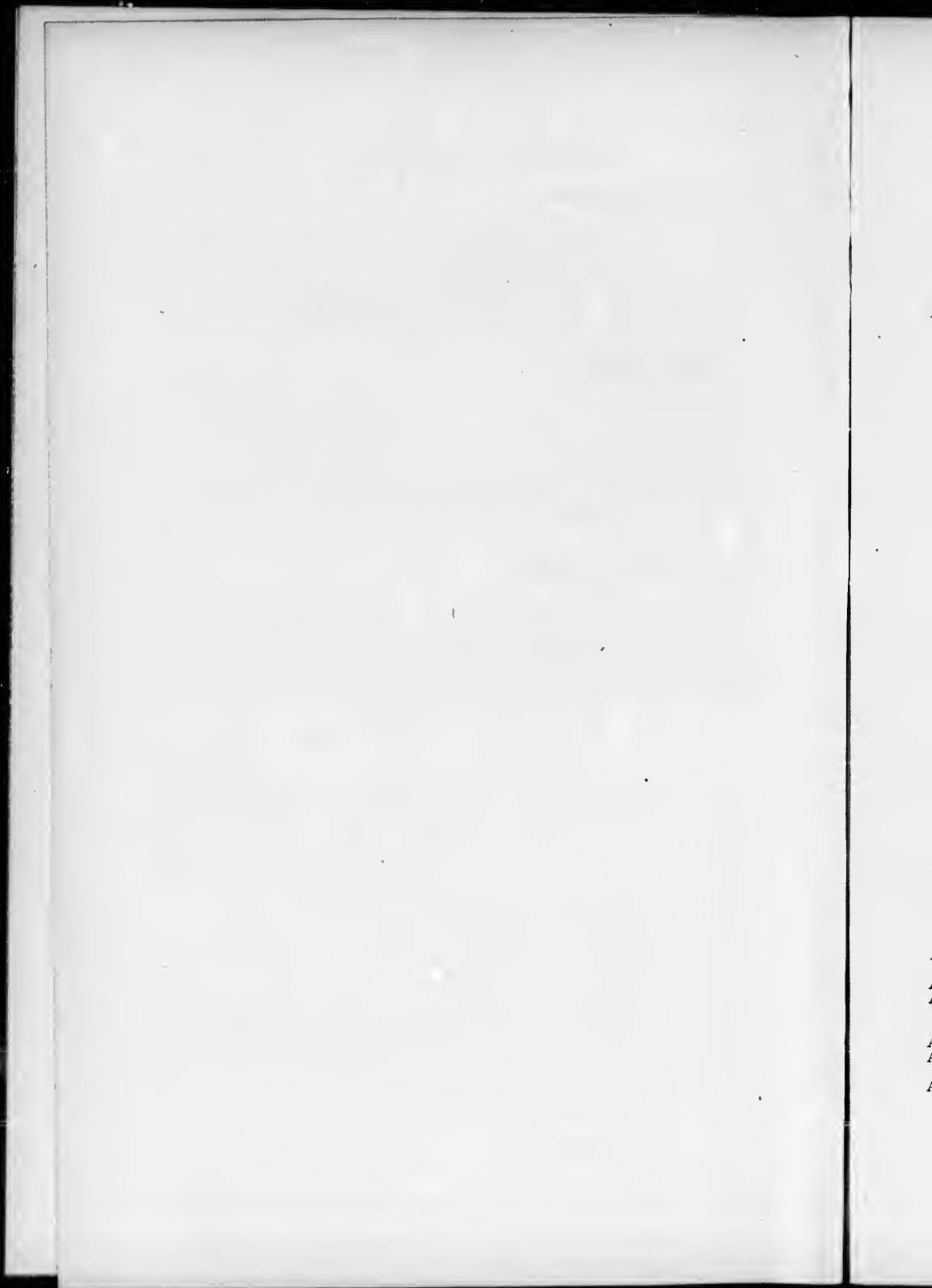
On June 2nd, 1897, I received a pair of burrowing owls which were collected about five miles north of Portage la Prairie, Man.; on May 9th, 1902, a specimen taken near Grant's Lake, north of Rosser, and last spring, May, 1903, another specimen from near the same locality and one from Portage la Prairie were received. (*George E. Atkinson.*)

529a. Pale Goldfinch.

We have three specimens of this form which have been referred to the American goldfinch, and the willow goldfinch respectively. These were taken at Indian Head, Assa., and at 12-Mile Lake near Wood Mountain, Assa., and at Cascade, B.C. The occurrence of this form at such widely separated points coincides exactly with Mr. Ridgway's distribution of it along the Canadian Boundary.

549-1. Nelson's Sparrow.

On page 473 mention is made of the occurrence of Leconte's sparrow at Edmonton and Peace River Landing. The specimens taken on these occasions have been submitted to Mr. Oberholser and they prove to be Nelson's sparrow. It is hoped that observers will now attempt to determine the limits of distribution of these two forms north of the Canadian prairie region.



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