

NOTES ON THE BIRDS OF THE GRAND PRÉ REGION, KINGS COUNTY, NOVA SCOTIA.—BY ROBIE WILFRID TUFTS, Wolfville, N. S.

(Read 14 May 1917)

The observations herein recorded are the fruits of careful and painstaking field-work, carried on intermittently for a period covering the past twenty years.

The country covered by these notes is the region embraced by Kings County, especially that portion within a radius of ten miles of Wolfville, and including the Grand Pré (or Great Prairie) which stretches from the mouth of the Cornwallis River to the mouth of the Gaspereau. The mud-flats exposed at low tide in Minas Basin; the salt marshes and sand beaches adjacent to the Grand Pré meadows; the heavily wooded hills, fresh-water lakes, river margins and forests of the Black River (a tributary of the Gaspereau River); all these have contributed their quota to the observations here set down.

It may be noted that my spring records for that class of birds known as "waders" are rather vague and incomplete. This must not be construed as indicating that these birds do not pass through this region on their northern journey, but rather that my time at this season of the year is always spent in the more attractive woodland areas.

To my brother, Dr. Harold Freeman Tufts, now of Boston, Mass., I am deeply indebted for much general data, more particularly in reference to the "water birds".

The list contains 180 species and subspecies, and of these we have discovered the nests or seen the fledgings of 91. The numbers and nomenclature are those of the American Ornithologists' Union. Local bird names in use in the district are enclosed in quotation marks.

The following, I believe, is a complete list of all articles that have appeared in reference to the birds of this particular district.

“Notes on the Birds of King’s County, Nova Scotia.” By Harold [Freeman] Tufts. *The Ottawa Naturalist*, vol. 12, no. 9 (Dec., 1898), pp. 172-177; no. 11 (Feb., 1899), pp. 229-233; no. 12 (Mar., 1899), pp. 259-262. An annotated list of 158 nominal species.

“Nesting of Crossbills in Nova Scotia.” By Harold F. Tufts. *The Auk*, N. Y., vol. 23, July, 1906, pp. 339-340. Notes on the nesting of American and White-winged Crossbills near Wolfville, in the winter of 1906.

“A New Song Sparrow from Nova Scotia.” By John E. Thayer and Outram Bangs. *Proceedings of New England Zoological Club*, vol. 5, pp. 67-68, May 29, 1914. Description of *Melospiza melodia acadica* subsp. nov., collected by R. W. Tufts at Wolfville.

“Wilson’s Snipe Wintering in Nova Scotia.” By R. W. Tufts. *Bird-Lore*, Harrisburg, Pa., vol. 17, no. 3 (May-June, 1915), p. 208. Describes occurrence of a snipe at Wolfville in January, 1915.

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2. *Colymbus holbællii* (Reinh.). HOLBÆLL’S GREBE.—
On May 13, 1917, I saw one of these birds on Sunken Lake in the Black River district. It was near the shore and was readily distinguished from *auritus* and *podiceps* by its much larger size. I have a record of this species from Lunenburg County, but this is the first for Kings.
 3. *Colymbus auritus* Linn. HORNED GREBE.—Rare transient. Only one record; a specimen in immature plumage taken in December, 1890, by D. R. Munro, of Wolfville, near the mouth of the Gaspereau River. This bird was mounted and is still preserved.

6. *Podilymbus podiceps* (Linn.). PIED-BILLED GREBE.—Uncommon transient. A few records for late summer and fall. A male taken Aug. 30th, 1900, by myself in a small fresh-water pond near Wolfville.
7. *Gavia immer* (Brünn.). LOON.—Summer resident. Common about our lakes and still-waters, also occasionally observed along the coast in late November. Their arrival at the lakes in spring is coincident with the breaking up of the ice; and they remain till driven out by its return. Nests in June on low-lying islands, always within a few feet from the water's edge. Eggs two in number.
11. *Gavia stellata* (Pont.). RED-THROATED LOON.—Rare spring, fall, and winter visitor. A specimen in immature plumage taken Nov. 8th, 1913, by the writer, at the mouth of the Cornwallis; and a female on May 26, 1917 in the same locality. No observations except at salt-water.
34. *Alle alle* (Linn.). DOVEKIE.—One record only. A specimen taken November, 1900, by myself, on the Grand Pré, in a pond hole a few hundred yards from tide water. A fierce gale was raging, and the bird, nearly exhausted, was easily captured alive.
47. *Larus marinus* Linn. GREAT BLACK-BACKED GULL; "SADDLE-BACK".—Permanent resident. Common in summer, rare and irregular in winter. During the latter part of April the "Black-backs" may be seen in twos and threes, winging their way inland from the salt marshes of the Minas Basin to the fresh-water lakes, several of which are favored by these birds as breeding localities. One of these, Methaul's Lake, I visited in 1908 and again in 1914, about the middle of May. About 20 to 30

pairs were found nesting on each occasion. Solitary granite boulders in the middle of the lake were used, some being scarcely large enough to hold the nest. Some small islands contained four or five nests. The birds were very shy, and left their nests while the intruder was still several hundred yards distant. Eggs three in number.

51. *Larus argentatus* Pont. HERRING GULL; "SEA GULL", "GRAY GULL."—Permanent resident; very common in summer, rare and irregular in midwinter. Nests about June 1st. A favorite breeding site is Isle-au-Haute, an abrupt rock-bound island of the Bay of Fundy.
54. *Larus delawarensis* Ord. RING-BILLED GULL.—One record only. Specimen taken in May, 1896, by H. F. Tufts.
60. *Larus philadelphia* (Ord.). BONAPARTE'S GULL.—Rare transient. One record only. Specimen taken Sept. 28, 1897, on the Grand Pré, by H. F. Tufts. A heavy north-east rain storm and a high tide prevailed at the time.
106. *Oceanodroma leucorhoa* (Vieill.). LEACH'S PETREL; "MOTHER CAREY'S CHICKEN."—Exceedingly rare. One observation only. After a heavy storm, on Nov. 8, 1913, a flock of a dozen or more were seen at the mouth of the Cornwallis. These were asleep, holding on to the stems of the rank marsh sedges which were about half submerged by the high tide, and thus afforded a mooring. We approached them in a boat, and captured several in our hands.
117. *Sula brassana* (Linn.). GANNET.—About 1898 and regularly for some years previous, a pair of Gannets nested at Harborville, Kings County. The nest was on a ledge of rock, about one hundred

feet above the beach, on the perpendicular sea-wall of the Bay of Fundy. Above the ledge was a huge overhang of rock extending thirty or forty feet out and rendering the ledge absolutely inaccessible. One of the pair, probably the female, was shot while on or by the nest by a young man named Morris, and was picked up on the beach below. Charles Morris, now of Margaretville, Annapolis County, the boy's father, recently told me of this, and described the bird so clearly as to leave no doubt whatever as to its identity, although the specimen was not preserved. This is the only record I have of the occurrence of this species in Kings County.

119. *Phalacrocorax carbo* (Linn.). CORMORANT.—Uncommon transient. One specimen taken in November, 1898, near the mouth of the Gaspereau River. Occasionally seen on the Minas Basin in spring and fall, but more frequently in the spring.
120. *Phalacrocorax auritus auritus* (Swains.). DOUBLE-CRESTED CORMORANT.—A fine specimen was captured alive in a fish-weir on the mud-flats off Starr's Point, Cornwallis, on May 16, 1917, and a second specimen was taken in the same weir on May 28th of the same year. They are the only records I have.
129. *Mergus americanus* (Cass.). AMERICAN MERGANSER; "GOOSANDER."—Uncommon winter visitor. Only a few records. A specimen in immature plumage taken on the Grand Pré marshes, Dec. 9, 1913. A male in full plumage taken in December, 1898. No observations except at salt water.
130. *Mergus serrator* (Linn.). RED-BREASTED MERGANSER; "SHELL-DRAKE."—Permanent resident, most common about our rivers and lakes. Breeds about the middle of May. Locally this bird is frequently mistaken for the rare Wood Duck.

132. *Anas platyrhynchos* Linn. MALLARD.—Rare fall visitor. Two records only. A fine drake taken on the Grand Pré, Oct. 1900, by D. R. Munro, of Wolfville, and a specimen in female or immature plumage by H. A. Ford, now of Calgary, Alta., also on the Grand Pré, in Oct. 1903.
133. *Anas rubripes* Brewst. BLACK DUCK; BLUE-WINGED DUCK.—Abundant permanent resident. These birds frequent the salt marshes about the estuaries of the Minas Basin from September to April. With the advent of spring and the breeding instinct, they leave for the inland fresh-water lakes and rivers. Some remain to breed in the fresh-water sloughs, pond-holes and ditches of the Grand Pré. Late in November and all through December when the ice has driven the inland breeding ducks to the coast, flocks of thousands may be seen any day, feeding on the salt marsh—known locally as “The Flats”—at the mouth of the Cornwallis River. During January and February fully ninety per cent. of these birds leave for more southerly feeding grounds.
137. *Mareca americana* (Gmel.). BALDPATE.—Rare fall migrant. One specimen taken by my brother, H. F. Tufts, on the Grand Pré, in October, 1896.
139. *Nettion carolinense* (Gmel.). GREEN-WINGED TEAL.—Fall migrant, not so common as formerly. Two records for winter. A male taken by H. F. Tufts, Jan. 11, 1898, and two specimens seen at mouth of Gaspereau, Jan. 3, 1916.
140. *Querquedula discors* (Linn.). BLUE-WINGED TEAL.—Rare fall migrant. One record only,— a specimen in immature plumage, taken by my brother, Sept. 27, 1898.

143. *Dasyla acuta* (Linn.). PINTAIL.—Uncommon fall migrant. A few specimens, which I have seen in the flesh, have been taken by local gunners during the period covered by these notes,
149. *Marila affinis* (Eyt.). LESSER SCAUP DUCK.—Rare fall migrant. Two specimens taken by H. F. Tufts on the Grand Pré dykes, one in the fall of 1896, and the other on Oct. 14, 1902.
153. *Charitonetta albeola* (Linn.). BUFFLEHEAD.—Rare fall migrant. One specimen shot by my brother on Minas Basin in October 1896, after a heavy storm.
154. *Harilda hyemalis* (Linn.). OLD SQUAW; "PINE KNOT;" "COCKAWEE."—Common along the coast of the Bay of Fundy. Occasionally observed in small flocks in the late fall in Minas Basin.
160. *Somateria dresseri* Sharpe. AMERICAN EIDER.—Rare fall visitant. In November, about 1898, a large flock of Eiders was regularly seen on "The Flats" at the mouth of the Cornwallis River. Nov. 1st to 10th, 1903, a flock of fifty or more was regularly observed in the same vicinity.
163. *Oidemia americana* Swains. AMERICAN SCOTER; "COOT."—Uncommon and irregular. Sometimes a large flock is seen in Minas Basin in the fall after a heavy storm.
165. *Oidemia deglandi* Bonap. WHITE-WINGED SCOTER.—Much more common than the preceding species. Seen from April to November in Minas Basin. Some years ago, when the shad fishing industry flourished, these birds, during the moulting season, would become stranded on the mud-flats behind the the seines, and being unable to fly were easily captured.

166. *Oidemia perspicillata* (Linn.). SURF SCOTER.—A male of this species, in transition plumage (no white crown patch, otherwise typical) was taken on the mud-flats at Starr's Point, Cornwallis, May 21st, 1917, and brought to me alive. Though unhurt, it was not able to rise and seemed to be starving in the midst of plenty. The following day a female was taken about the same place and was in a similar emaciated condition. Both were mounted and are now in the Provincial Museum at Halifax.
172. *Branta canadensis canadensis* (Linn.). CANADA GOOSE; "WILD GOOSE."—Common spring and fall migrant. While seen on the marshes as early as Feb. 21, ('97), the average date for spring arrivals is the latter part of March. Some seasons they linger on well into April, while other years they remain but a few days. About the middle of December, and almost any day thereafter until the end of that month, these living wedges may be seen by day or heard by night, "honking" high over head on apparently tireless wings. They rarely stop on our marshes in the fall.
173. *Branta bernicla glaucogastra* (Brehm) BRANT.—Rare spring and fall migrant. Sometimes seen in the late fall after a severe storm. In the spring of 1870, the year following the very extraordinary "Saxby tide" of Oct., 1869, I have been told that these birds were seen in unusually large numbers, and many specimens were taken. Since that time their occurrence has been rare and irregular, and I have no records since the spring (April) of 1903.
190. *Botaurus lentiginosus* (Montag.). AMERICAN BITTERN; "STAKE DRIVER;" "MARSH HEN."—Fairly common

summer resident. Common on the Grand Pré in fall from middle of August to middle of October. Nests in May. Any sluggish stream or pond hole with reedy margin is a likely place to find these strange looking birds.

194. *Ardea herodias herodias* Linn. GREAT BLUE HERON; "CRANE."—Summer resident, occurring from about April 10 to latter part of October. Most common during the fall, about the extensive mud flats which are bare at low tide—also commonly seen during the spring and summer about the inland fresh-water lakes and streams. On May 22nd, 1913, I had the rather rare privilege of visiting a heron colony in the Cloud Lake region near the Kings-Annapolis line. Securing information from a trapper as to the approximate location of this colony, I started with a guide through heavily wooded country. Our objective was a ridge of land, ten miles distant, which separated two small lakes. Arrived there, we found it covered with a magnificent growth of giant, shaggy trunked, yellow birches. After much ranging back and forth we reached the vicinity of the nests, and soon the birds, attracted by the noise we made, were flying overhead uttering their raucous cries. A few minutes later we found ourselves in the midst of the heronry—and a noisy place it was. A few big spruces and hemlocks were interspersed among the birches, and the top of each one served as a perch for an old heron, which by the aid of toes and flapping wings, was able to hold on after a fashion. Over 50 nests could be seen, but of these only about 20 were new. Two trees contained three nests; several had two, but in most cases there was but one nest to a tree. They were fastened among the topmost twigs,

at heights ranging from 70 to 85 feet. Many nests contained young birds—their cries could be heard plainly, and in some cases their long necks protruded over the edge of the nest. Under such nests we invariably found bits of broken blue egg-shells. Finally a nest was located under which no shells could be found, but other tell-tale signs showed that it was in use. The first limbs were fully forty feet up, and by this time a fierce gale was blowing, accompanied by driving rain; but after a strenuous climb I gained the topmost twigs which held the nest. It consisted of a rude platform of twigs, and had a rough lining of reeds and shredded bark. It contained 5 eggs, pale blue in color. Some eight or ten years ago, from 75 to 100 pairs were numbered in this colony. The diminution in numbers has been caused chiefly, I believe, by the wanton persecution that these birds receive at the hands of ignorant hunters and trappers, who blaze away with their rifles at the perching birds which make easy and inviting targets. About a dozen remains of adult birds were found under the trees we visited.

202. *Nycticorax nycticorax naevius* (Bodd.). BLACK CROWN-ED NIGHT HERON.—Rare transient visitor. One record only, a specimen in immature plumage taken on the Grand Pré, Oct. 22nd 1898.
214. *Porzana carolina* (Linn.). SORA.—Summer resident. Probably not uncommon, but seldom seen on account of its retiring habits. Frequents reed-grown sloughs, pond holes and cat-tail swamps of the Grand Pré. When seen is usually walking or running over the reedy surface of the water from one tangle of rushes to the next.

215. *Coturnicops noveboracensis* (Gmel.). YELLOW RAIL.—
One record only. Sept. 19, 1895, a specimen was taken alive by my brother near the mouth of the Cornwallis River. It seemed unable to rise and tried to hide in the grass, but apparently had not been wounded.
219. *Gallinula galeata galeata* (Licht.). FLORIDA GALLINULE.—
—Rare; two records only, both at Canard River, a sluggish reed-grown stream which winds through the meadows and flows into Minas Basin. One taken Sept. 26, 1898, by my brother, and the other one, Oct. 15, 1913, brought to me in the flesh for identification.
222. *Phalaropus fulicarius* (Linn.). RED PHALAROPE.—
Only one record, a specimen taken on the Grand Pré (H. F. Tufts), Oct. 17, 1898, after a north-easterly storm.
228. *Philohela minor* (Gmel.). AMERICAN WOODCOCK.—
Summer resident; not uncommon in suitable localities from first week in April to November 10th, or until the advent of frost compels them to forsake their feeding grounds. Most common during October, the period of southern migration. They nest early in May, on the ground; and any fine evening (or at daybreak) during the nesting period the male may be heard singing his weird song which accompanies his aerial performance known as the "sky dance," so admirably described by Chapman in his "Birds of Eastern North America". The female sits so "close" on her eggs that she may often be touched before being induced to leave them.
230. *Gallinago delicata* (Ord.). WILSON'S SNIBE; "MEADOW HEN;" "ENGLISH SNIFE;" "JACK SNIFE."—Not uncommon summer resident in suitable localities,

but more common in the fall during the migration. Occurs from middle of April to late in November. In 1896 a pair wintered near Wolfville in a sheltered swamp, watered by a series of springs, which do not freeze even in the severest weather. Again in 1915 (January, etc.) a single bird wintered in this same swamp, and was frequently observed (see *Bird Lore*, vol. 17, no. 3, May-June, 1915, p. 208). These birds are much less common than formerly.

232. *Macrorhamphus griseus scolopaceus* (Say). LONG-BILLED DOWITCHER—I have but a single record of the occurrence of this bird. Oct. 20, 1898, my brother shot a specimen on the Grand Pré. It was feeding by a fresh-water pond hole a few rods from the salt marsh and was very tame.
234. *Tringa canutus* Linn. KNOT; "ROBIN SNIPE."—Uncommon and irregular transient visitor in autumn. Two specimens, a male and a female taken at Long Island Beach, Aug. 20, 1898 (H. F. Tufts). A female taken Aug. 27, 1907 (R. W. T.).
239. *Pisobia maculata* (Vieill.). PECTORAL SANDPIPER; "GRASS SNIPE."—Formerly a common fall visitor; but of late years uncommon and irregular. Found generally on the salt marshes after the hay has been cut.
240. *Pisobia fuscicollis* (Vieill.). WHITE-RUMPED SANDPIPER—Rather uncommon, but regular, fall visitor; Sept. 15 to November 25. Found at Long Island Beach.
241. *Pisobia bairdi* (Coues). BAIRD'S SANDPIPER.—Very rare fall visitant. One specimen taken by my brother, Sept. 7th, 1899, is the only record. His notes read:—"This bird was feeding with a half dozen or more Least Sandpipers and was readily

distinguished from them by its larger size and buff markings." This bird was mounted, and is now, I believe, in the Victoria Memorial Museum (Geological Survey) at Ottawa.

242. *Pisobia minutilla* (Vieill.). LEAST SANDPIPER; "PEEP."
—Common in fall, rare in spring. Occurs from July 25 to Oct. 20th. Frequents salt marshes after hay is cut, the mud-flats at low tide, or the ponds of brackish water just out of reach of the tide, but is rarely seen on the sand beaches.
- 243a. *Pelidna alpina sakhalina* (Vieill.). RED-BACKED SANDPIPER.—Uncommon autumn visitor. Seen on Long Island Beach during latter part of August and first of September in pairs or small flocks.*
246. *Ereunetes pusillus* (Linn.). SEMIPALMATED SANDPIPER; "PEEP."—From about July 23rd to latter part of September these birds may be seen on the mud flats and sand beaches. They are by far the most common among the shore-birds which visit Nova Scotia during the fall migrations. At Long Island Beach, where most of my observations have been taken, they occur in myriads from August 5th to 20th. Here they are much persecuted by "pot-hunters," despite the fact that they are protected (?) by the Provincial game laws till Sept. 1st, by which date most of them have passed on.
248. *Calidris leucophæa* (Pall.). SANDERLING.—Common fall migrant, Sept. 1 to Nov 25th. One record for winter, a pair seen at mouth of Gaspereau River, Jan. 7th, 1916. No records for spring.

*Compare also Piers's remarks on the possibility of the occurrence of the Dunlin (*Pelidna alpina alpina*) in Nova Scotia, in Trans. N. S. Inst. Sc., vol. 13, pp. 232-234 (1915).

251. *Limosa hæmastica* (Linn.). HUDSONIAN GODWIT.—Rare fall migrant. One record only, a specimen taken by my brother, Oct. 19, 1899, on the Grand Pré.
254. *Totanus melanoleucus* (Gmel.). GREATER YELLOW-LEGS.—Transient visitor in spring and autumn. Not so common as formerly. Occurs in spring, May 12 to 21st., in fall from Aug. 10 to Nov. 1. Seen chiefly about the Grand Pré marshes, though often to be noted about the shores of our inland lakes and rivers.
255. *Totanus flavipes* (Gmel.). LESSER YELLOW-LEGS.—Fall migrant, formerly not uncommon. No records since Aug. 13, 1898, when two were shot at Long Island (H. F. T.) This species was always less common than the "Greater," but during the past twenty years, seems to have become very rare. I have records for 1896, 1897, and 1898 all in August. Since 1898 my opportunities for observing it have been rather limited, but I am satisfied that it is much more uncommon than formerly.
256. *Helodromas solitarius solitarius* (Wils.). SOLITARY SANDPIPER.—Rather uncommon fall migrant, less common than formerly; July 20th to Oct. 1st. One record for spring, a belated, lone specimen seen along the Gaspereau River, May 24, 1913.
261. *Bartramia longicauda* (Bechst.). BARTRAMIAN SANDPIPER.—Rare and irregular fall visitor. Several of these birds were observed on the Grand Pré meadows by my brother, Sept. 13, 1896, one of which was taken. Another was taken by him on Canard dykes, Oct. 8, 1902, and is now in the Provincial Museum. Halifax. These are the only records I have.

263. *Actitis macularia* (Linn.). SPOTTED SANDPIPER; "TEETTER-TAIL;" "PEEP."—Summer resident, common; nesting first week in June. Found about the rocky lake shores and river margins; also (chiefly after the nesting season) along the shores of tide water.
265. *Numenius hudsonicus* Lath. HUDSONIAN CURLEW.—Rare fall migrant. A flock of five was seen Sept. 1899, on the Grand Pré, three of which were taken (H. F. T.). I have no other records till 1906, when, on September 11th I saw three chasing grasshoppers on the Grand Pré meadows. A few other records, all for September.
270. *Squatarola squatarola* (Linn.). BLACK-BELLIED PLOVER; "BEETLE HEAD."—Not uncommon fall migrant. Seen from August 10th to Nov. 15 or later, chiefly about the sand beach at Long Island, and on the exposed mud flats; also found on the salt-marshes after the hay is gathered, or occasionally inside on the green meadows. The adult birds appear first in the autumn, and by Sept. 20th the immature plumaged birds come along. By this time, however, the former have passed on further south. The young birds with their whitish breasts are not infrequently mistaken for the now rare Golden Plover.
272. *Charadrius dominicus dominicus* (Müll.). GOLDEN PLOVER.—Formerly common transient in autumn; now rare and irregular. As recently as 1888 and 1890 Golden Plover occurred about Wolfville during September and October in large flocks and seemed to favor the upland pastures for their feeding ground. Since then I have records for Sept. 12, 1898, Sept. 19, 1899, Aug. 27, 1907, Sept. 20, 1908, —singles and small flocks, all seen on the Grand

Pré meadows and Long Island beach. The Golden Plover has no hind toe, and it is the total absence of this member which affords the chief distinguishing mark between this species and the Black-bellied Plover,—the immature plumaged birds of both species being very similar as to color and size.

274. *Ægialitis semipalmata* (Bonap.). SEMIPALMATED PLOVER; "RING-NECK."—Common fall migrant. From about July 25th to Sept. 10th these birds may be found at Long Island beach, feeding in small scattered flocks by themselves or mingled with the large flocks of Semi-palmated Sandpipers. I have no records for spring though I have no doubt as to their regular occurrence at that season.
283. *Arenaria interpres interpres* (Linn.). TURNSTONE.—Rare and irregular fall transient. A few specimens taken at Long Island beach, Aug. 20, 1898(1); Aug. 24, 1899(3); Aug. 27, 1907 (1); a few other records for August.
- 298c. *Canachites canadensis canace* (Linn.). CANADA SPRUCE PARTRIDGE.—Rare permanent resident. Nests about the middle of May. This bird is most frequently found in the spruce swamps and extensive barrens of the interior and owing to its apparent stupidity and tameness is very easily taken. In the fall, about 1890, a female appeared in our garden and could be touched with the hand—it was so tame.*
- 300b. *Bonasa umbellus thayeri* Bangs. NOVA SCOTIAN RUFFED GROUSE; "BIRCH PARTRIDGE."—Common permanent resident. Nests about May 10th on the

*Some years ago Watson L. Bishop, while residing at Kentville, Kings Co., successfully kept a number of Spruce Partridges in a large enclosure for several years, as described in his paper on "The Canada Grouse in its Captivity, its food, habits, etc." in *Trans. N. S. Inst. Sci.*, vol. 13, pp. 150-153 (1912).

ground, and lays from 9 to 12 eggs. Despite its persecution by the ubiquitous gunners, to say nothing of its winged and four-footed enemies, this splendid game bird seems to be holding its own in this locality.

315. *Ectopistes migratorius* (Linn.). PASSENGER PIGEON; "WILD PIGEON."—I have not been able to learn anything definite about the occurrence of this bird in Kings County years ago when the species frequented the province. The following information applies to New Albany, a small settlement in the adjoining county of Annapolis, ten miles south of Middleton and about eight miles westward of the Kings-Annapolis Counties line. Although not actually referring to Kings County it is worthy of preservation as the latest occurrence known to me of this extinct species in this locality. During the boyhood of my father, Prof. J. F. Tufts of Acadia University, who was born at New Albany in 1843, flocks of "wild pigeons" were not uncommon there, though they were not seen in large numbers. The last time he can recollect having seen one of these flocks was in the autumn of 1855, when twenty or more of the birds alighted on the limbs of a huge dead pine. They remained there for some moments until alarmed by a gunshot from the thick undergrowth beneath the tree. Three of the birds were seen to drop. My father ran over to the tree and found there an old Indian trapper with a wounded pigeon in each hand and the third lying dead beside him.
316. *Zenaidura macroura carolinensis* (Linn.).—MOURNING DOVE.—Rare and irregular; two records only. One taken on the Grand Pré, Oct. 1896 (H. F. T.),

and the other seen in midwinter (Jan. 1910) in the Gaspereau valley. The snow was deep and the bird was feeding on weed seeds in a sheltered nook. It was observed there for several days and when alarmed would always seek shelter in a nearby heavy growth of spruce.

331. *Circus hudsonius* (Linn.). MARSH HAWK; "TOAD HAWK;" "MOUSE HAWK."—Summer resident. Common on the Grand Pré meadows. Arrives first part of April and remains until latter part of October. One record for winter—a female seen on the Grand Pré, Jan. 1st (1917), and again on Feb. 25th of the same year. I have no doubt this was the same bird. Nests about May 15th.
332. *Accipiter velox* (Wils.). SHARP-SHINNED HAWK—"CHICKEN HAWK."—Permanent resident, fairly common. In winter these birds, commonly called "Chicken Hawks," may sometimes be seen about the streets of the town, darting after English sparrows, and apparently quite fearless of the passers-by.
333. *Accipiter cooperi* (Bonap.). COOPER'S HAWK.—Uncommon. No records for the winter months. A nest found May 18th, 1904, built in a maple tree about 30 feet up, contained four eggs.
334. *Astur atricapillus atricapillus* (Wils.). AMERICAN GOSHAWK; "BLUE HEN HAWK;" "BLUE DARTER."—Uncommon permanent resident. These hawks frequent the heavily-wooded districts generally, but in fall they prefer the smaller woods adjacent to farms, especially those which are well stocked with poultry, on which they prey. They nest in hardwood forests, and return to the same nesting site year after year. The nest is generally placed in a

beech or maple, 15 to 30 feet from the ground. Some fifteen nests of this species have been observed. Eggs 2 to 4 (usually 3).

337. *Buteo borealis borealis* (Gmel.). RED-TAILED HAWK.—Summer resident, not uncommon. Occurs from March 20th to last of October. More common inland—a bird of the hills and big woods. Nests the last week of April in the Black River regions.
- 347a. *Archibuteo lagopus sancti-johannis* (Gmel.). AMERICAN ROUGH-LEGGED HAWK.—Rare winter visitant of irregular occurrence. Common on the Grand Pré during the winter of 1899-1900, when it was not unusual to observe twenty-five or more in a single afternoon. None have been seen since.
352. *Haliaeetus leucocephalus leucocephalus* (Linn.). BALD EAGLE.—Exceedingly rare. About 1895 a pair of eagles nested at Long Island, but this nest with the young was destroyed by farmers of that locality. A specimen in immature plumage was taken at Greenwich in 1912. Another, an adult, was trapped at Kingston in the winter of 1912, and kept in captivity for some months.
353. *Falco islandus* Brünn. WHITE GYRFALCON.—On the morning of Jan. 21, 1902, I saw a large bird flying at a height of about 150 yards overhead. The sky was heavily overcast with dark storm clouds, and against this sombre background the bird's white plumage stood out in bold relief. When first observed, it was sailing on steady wing; but as I watched it, greatly puzzled, the manner of flight changed suddenly, and I noted the quick wing-beats characteristic of the Duck Hawk. This bird I have always believed to be a White

Gyrfalcon; and while I know such a record is really of no scientific value, the above is given for what it is worth.

- 354b. *Falco rusticolus obsoletus* (Gmel.). BLACK GYRFALCON.
—Exceedingly rare winter visitant. One record; a female taken Jan. 8, 1898, on the Grand Pré meadows by my brother, Harold F. Tufts. This specimen is still preserved in the collection of William Brewster, Cambridge, Mass.
356. *Falco peregrinus anatum* (Bonap.). DUCK HAWK.—
Of rare and irregular occurrence. One observed Aug. 4, 1913, pursuing a flock of Semipalmated Sandpipers at Starr's Point beach. No records except for August and September.
357. *Falco columbarius columbarius* (Linn.). PIGEON HAWK.
—Rare and irregular in occurrence. A few specimens taken in 1907; no record since till the fall of 1916, when one was observed at Black River.
360. *Falco sparverius sparverius* Linn. SPARROW HAWK.—
Summer resident—fairly common about the sandy plains and sparsely wooded districts in the western part of the county. Occurs from middle of April to latter part of October. One record for winter, a male taken Jan. 7, 1899, by H. F. Tufts.
364. *Pandion haliaetus carolinensis* (Gmel.). OSPREY; "FISH HAWK."—Rare. Formerly not uncommon in May and June, at which season they followed the fish up the Gaspereau River. Of late years I have no records, and these birds may be listed as "rare."
366. *Asio wilsonianus* (Less.). LONG-EARED OWL.—Rare. No record since Sept. 3rd, 1898, when a specimen was taken at Long Island. During 1897 and again

in 1898 a pair of these birds nested in the woods at Long Island, and all observations recorded were made during those two years.

367. *Asio flammeus* (Pont.). SHORT-EARED OWL.—Not uncommon on the Grand Pré dykes except in summer—for which season I have one record only, May 19, 1917. Of more frequent occurrence some years than others.
368. *Strix varia varia* Barton. BARRED OWL.—Uncommon permanent resident. Nests in May, sometimes using an old deserted crow's nest, or a hollow stub. Found in heavily wooded sections of the county.
371. *Cryptoglaux funerea richardsoni* (Bonap.). RICHARDSON'S OWL. — Very rare. Watson L. Bishop of Dartmouth (formerly of Kentville, Kings Co.) reports that one of these owls was taken in Feb., 1890, at North Alton, Kings Co., and was brought to him alive. This specimen was mounted and is at present in the Museum at Acadia College, Wolfville.
372. *Cryptoglaux acadica acadica* (Gmel.). SAW-WHET OWL. —Rare. Present throughout the year. A nest discovered Apr. 15, 1900, contained 5 eggs. On June 8, 1915, a young male was taken alive in the old nesting hole. It showed no fear, and perched on my finger, though strong and well able to fly, being fully grown.
373. *Bubo virginianus virginianus* (Gmel.). GREAT HORNED OWL.—Permanent resident, and probably our most common owl. Nests in February and March. Prefers heavily timbered regions. Many of these birds are killed every year by boys who set wire rabbit snares. The rabbit gets caught, and its pathetic far-reaching cry soon attracts the owl,

who speedily arrives and puts it out of misery. Next day the remains of the rabbit are discovered, a steel trap is set, and at night the owl, returning to finish his banquet, almost invariably walks into the trap. Five specimens so killed during the winter of 1915-16 were brought to me in the flesh.

376. *Nyctea nyctea* (Linn.). SNOWY OWL.—Irregular winter visitor. No observations except on the Grand Pré meadows. During the winter of 1902-3 these owls were common, and many specimens were taken by local gunners. None were since observed about this region until this winter (1916-17), when several were seen during December and January.
- 377a. *Surnia ulula caparoch* (Müll.). HAWK OWL.—Exceedingly rare. Two specimens were brought to my brother for identification in the winter of 1898. No other records.
388. *Coccyzus erythrophthalmus* (Wils.). BLACK-BILLED CUCKOO.—Summer resident, irregular and uncommon. On June 10, 1902, a nest of this species was discovered in an orchard, placed on a horizontal low apple limb, near the end and much exposed. This nest was a very rude affair, composed of a few twigs, crudely lined with two or three big dead maple leaves. On June 17 it contained three eggs. The occurrence of this bird about Wolfville appears to be more uncommon of late years.
390. *Ceryle alcyon* (Linn.). KINGFISHER.—Common summer resident in suitable localities. Occurs first week in May to second week of October. One observed Oct. 22, 1915. Most commonly seen along the shores of inland lakes and rivers, but occasionally in fall about the marshes, where they find the shoals of minnows in the shallow pools of brackish water

easy to capture and much to their liking. Nest in a sand bank, the tunnel being excavated to a depth of six or eight feet, ending in an enlarged chamber. This contains no lining. They lay five to seven eggs.

- 393a. *Dryobates villosus leucomelas* (Bodd.). NORTHERN HAIRY WOODPECKER.—Common permanent resident. During the nesting period these birds are seldom seen far from the heavily wooded sections, but during fall and winter they visit settled portions of the county. I have had one feeding regularly in my garden this winter on a piece of suet fastened to my feeding shelf.
- 394c. *Dryobates pubescens medianus* (Swains.). DOWNY WOODPECKER.—Common permanent resident. This species is more common than the Hairy Woodpecker, and closely resembles it except in size, being little more than half as large. Found about our orchards and ornamental groves at all seasons. A pair nest every year in a box provided for them in my garden.
400. *Picoides arcticus* (Swains.). ARCTIC THREE-TOED WOODPECKER.—Rare permanent resident. I have seen them during every month of the year—but of late years fewer are seen than formerly. Most records for winter months.
402. *Sphyrapicus varius varius* (Linn.). YELLOW-BELLIED SAPSUCKER.—Common summer resident, in suitable localities. Arrive last week in April and during the nesting season are found in the “backwoods” regions. They seem to prefer poplar trees for a nesting site and hence are most often seen in woods where these trees predominate. Like other wood-

peckers they excavate their own nesting cavities; and their eggs, 4 to 6 in number, are laid early in June.

- 405a. *Phlæotomus pilatus abieticola* (Bangs). NORTHERN PILEATED WOODPECKER; "DEVIL'S WOODPECKER."—Rare permanent resident. This giant woodpecker haunts the deep forests remote from civilization, seeming to prefer the dark woods bordering swamp lands. On clear frosty days in March and early April I have heard these birds calling back and forth a mile or more across Black River lake. Their loud Flicker-like notes carry for a considerable distance. Last year, in the winter, I noticed a pair in the Black River region going in and out of a hole which they had drilled in a large poplar—a hole which I supposed was an old nesting site. I visited the place again in April. The birds were not there; and on examining the tree I found it to be hollow from the ground to the first limbs, some 35 feet or more. The pair were evidently using this place as a shelter during the winter storms.
- 412a. *Colaptes auratus luteus* Bangs. NORTHERN FLICKER; "YELLOW-HAMMER."—Common summer resident. Occasionally observed in winter. Occurs regularly from the middle of April to latter part of October. One record Dec. 10, 1915, near Wolfville, another March 26, 1915.
417. *Antrostomus vociferus vociferus* (Wils.).—WHIP-POOR-WILL.—Rare summer resident. On the evening of June 11, 1915, I had the pleasure of hearing my first and only Whip-poor-will in this province, though I am familiar enough with the bird elsewhere. This occurred in a remote and lonely region of Annapolis County, only a few miles from

border of Kings, for which reason I feel justified in including it with these notes. I drove several miles back to an old deserted homestead, and as dusk came on I clearly heard the bird giving utterance to those familiar notes which there is no mistaking. I stayed there for a half hour, and the bird was still calling when I left. I was told by a woodsman living near the place that this bird had been heard every year since 1909, and had frequently been seen at dusk, on a certain flat rock. It appeared to be alone, not more than one being seen or heard.

420. *Chordeiles virginianus virginianus* (Gmel.). NIGHT-HAWK.—Common summer resident. May 23 (8 years) to middle of September. Nests from June 10th to 20th in our burntlands, on the ground.
423. *Chætura pelagica* (Linn.). CHIMNEY SWIFT; "CHIMNEY SWALLOW.—Common summer resident. May 13 to Sept. 20. Nests about June 10th. A nest of this species was found a few years ago on a flat rock, ten feet down on the side of a stone well. Another was seen stuck to the perpendicular wall of an abandoned mill, about 12 feet from the floor, near Black River lake. Usually nest in a chimney.
428. *Archilochus colubris* (Linn.). RUBY-THROATED HUMMINGBIRD.—Summer resident, not uncommon. Occur from about May 16 to Sept. 1st. Most commonly observed about our flower gardens, but not infrequently in the heavily wooded regions to the south of Wolfville. A nest of this species was discovered on the horizontal dead limb of a hackmatack. The limb was covered with *Parmelia* lichens, of which the nest was a perfect imitation, resembling as it did a grey knot. It contained two eggs—a full set.

444. *Tyrannus tyrannus* (Linn.). KING BIRD.—Common summer resident. Arrives May 16th (10 years) and departs about Sept. 1st. Seen most commonly about our apple orchards. Nests on the horizontal bough of deciduous trees, but occasionally in low bushes, about the middle of June. The Kingbird is very regular in the date of his spring arrival here. In ten years records, the earliest "first seen" date is May 13th, the latest, May 18th.
459. *Nuttallornis borealis* (Swains.). OLIVE-SIDED FLY-CATCHER.—Fairly common summer resident. Arrives May 22nd (10 years), and seldom seen after the last week in August. I have not observed these birds near open sea coast; they seem to prefer settled districts of the Annapolis valley or the wildernesses to the south. Nests from June 10th to 20th.
461. *Myiochanes virens* (Linn.). WOOD PEWEE.—Summer resident, not uncommon and evenly distributed. Average date of arrival, May 26th. Seen often about the ornamental shady groves of the town, and as often in the remote heavily wooded regions. Nest in latter part of June using a horizontal limb of a large tree. The nest, like that of the Humming-bird, is covered with *Parmelia* lichens and closely resembles a knot on the limb on which it rests.
463. *Empidonax flaviventris* Baird. YELLOW-BELLIED FLY-CATCHER.—Uncommon summer resident. Arrives about June 1st, and like the other Flycatchers, leaves late in August. Observations mostly taken in deep shady woods, along the courses of rocky mountain streams. The bird is hard to approach, and is best recognized by its sweet, mournful call-note.

- 466a. *Empidonax trailli alnorum* Brewst. ALDER FLY-CATCHER.—Fairly common summer resident. Arrives about May 28th (4 years), and leaves about Aug. 25th. Observed in alder swamps, rose-bush tangles, blackberry thickets and any waste land covered with thick bushes. Several pairs nest every year in a rose thicket near my house at Wolfville. They are very shy and their presence is almost invariably revealed by their characteristic note.
467. *Empidonax minimus* W. M. and S. F. Baird. LEAST FLYCATCHER.—Common summer resident, arriving about May 10th and leaving the latter part of August. This bird takes up its abode in our orchards and gardens, and though I have sometimes met with it in the heavily timbered regions, it always seems out of place there. Nests in apple trees, chiefly, about the middle of June. A nest once discovered in a hemlock—a most unusual site.
474. *Otocoris alpestris alpestris* (Linn.). HORNED LARK.—Winter visitor. Common locally. Seen on the Grand Pré from Nov. 1st to April 1st. Have never observed this bird far from salt water.
477. *Cyanocitta cristata cristata* (Linn.). BLUE JAY.—Permanent resident, common except in midwinter. During the nesting season Blue Jays are seldom seen away from the backwoods regions; but in the fall, when the corn begins to ripen, they appear about our farms and gardens. Some years they are quite common about the roadsides and orchards in winter. I have frequently fed fifteen or more on my lawn in severe weather.

BIRDS OF THE GRAND PRÉ REGION.—TUFTS.

484. *Perisoreus canadensis canadensis* (Linn.). CANADA JAY; "MEAT HAWK;" "CAMP ROBBER;" "CARRION BIRD;" "WHISKEY JACK."—Permanent resident, not uncommon locally. A resident of our evergreen forests, seeming to prefer the low-lying boggy spruce woods. They nest very early, about the middle of March. On March 10, 1914, one of these birds appeared in the hen-yard of a back-woods farm, and was seen carrying off feathers. On June 29th, 1915, I saw four fully grown, long tailed, nearly black immature specimens, accompanied by a pair of adult birds.
- 486a. *Corvus corax principalis* Ridgw. NORTHERN RAVEN.—Rather uncommon resident. Seen most frequently along the shores of the Bay of Fundy, where they nest on rocky ledges of the perpendicular sea-wall. They also inhabit the heavily wooded Black River and Forks River districts, where they seem to favor hemlock trees for nesting sites. A nest was discovered in a large yellow birch tree, April 15, 1917, and contained six eggs.
488. *Corvus brachyrhynchos brachyrhynchos* Brehm. CROW.—Exceedingly common resident.
494. *Dolichonyx oryzivorus* (Linn.). BOBOLINK.—Summer resident; abundant, from middle of May to latter part of September. Most common on the Grand Pré near the salt marshes. Occasionally met with in the upland hayfields.
498. *Agelaius phœniceus phœniceus* (Linn.). RED-WINGED BLACKBIRD.—Exceedingly rare. A small flock—four or five—was seen feeding in a cat-tail swamp on the Grand Pré, Dec. 13, 1899. One specimen was taken by H. F. Tufts. This is the only record I have for this county. A nest of this species was reported from Colchester Co. a few years ago.

501. *Sturnella magna magna* (Linn.). MEADOW LARK.—Rare and accidental. One record only—a female taken at Bout Island near the mouth of the Gas-pereau, Jan. 7, 1916 (R. W. T.). This bird was found on the salt marsh in a bleak and most exposed district, and had been seen there regularly for some days. It was feeding on the seeds of the marsh sedges which had not been cut the previous fall. Despite the fact that the marsh was exposed only in spots (being covered for the most part with slush and ice-cakes), the bird was in good condition, and was approached with difficulty.
509. *Euphagus carolinus* (Müll.). RUSTY BLACKBIRD; "BLACKBIRD"—Summer resident, common locally, from March 28th to middle of October. Observed chiefly in alder thickets, bordering lakes, rivers and swamps of outlying settlements. Nests commonly along the Forks river, a tributary of the Avon river.
- 511b. *Quiscalus quiscula æneus* Ridgw. BRONZED GRACKLE.—Common summer resident, arriving about first week in April. Seen more commonly about settled districts than in the wooded regions. Nests first week in May. Referring to my notes for 1896, I find that on May 3rd of that year I recorded my first "Purple Grackle;" this bird appeared in our garden, and I followed it for half a hour, studying it with my glasses. The following year on the 11th of April, a pair of these birds was seen in town, and one, a male, was taken and brought to me. It was then that I learned that this bird was not the Purple but the Bronzed Grackle. Since that year they have visited this region with marked regularity and in increasing numbers, until now they are common summer visitors.

515. *Pinicola enucleator leucura* (Müll.). PINE GROSBEEK;
“WINTER ROBIN.”—Permanent resident, apparently becoming more uncommon. Found chiefly about our evergreen woods in the southern part of the county. Two nests were found by H. F. Tufts about the middle of June in small coniferous trees. Until recent years it was believed to nest, like the Crossbills, during the winter season. About 1890 it was a common sight during the winter months to see small flocks of Pine Grosbeaks about the town feeding on the seeds of the ash tree. They were exceedingly tame, and attracted much attention. Since 1898 I have not seen them at all about town, but have made all my observations in the heavy woods. This winter (1917), however, I have observed a few specimens about our orchards feeding on the eggs of the canker-worm.
517. *Carpodacus purpureus purpureus* (Gmel.). PURPLE FINCH: “RED LINNET.”—Common summer resident, occasionally seen in winter. Frequents our orchards, open woodlands and hedges. Nests about last of May, generally in coniferous trees.
- . *Passer domesticus domesticus* (Linn.). HOUSE OR ENGLISH SPARROW.—Abundant resident. An introduced species. The House Sparrow was introduced into this district by D. R. Eaton in 1878. Mr. Eaton, who was at that time one of the most progressive farmers and orchardists in Cornwallis, Kings Co., brought one or more pairs of the birds from Cambridge, Mass., hopefully anticipating that they and their progeny would prey upon a certain insect pest which was causing the farmers of the region much loss through damaged crops.

521. *Loxia curvirostra minor* (Brehm). AMERICAN CROSS-BILL.—Of irregular occurrence throughout the year. Most common in June. Observed during fall, winter and early spring in the evergreen forests. In the summer months I frequently see them about the town and country roadsides in roving flocks of fifty or more, feeding on the ripening elm seeds. I have seen this bird nesting a few miles south of Wolfville during January, February and March of the years, 1902, 1906 and 1913. (See *The Auk*, vol. 23, July 1906, p. 339.)
522. *Loxia leucoptera* Gmel. WHITE-WINGED CROSSBILL.—Of irregular occurrence; less common than the preceding species. I have observed this bird every month of the year, but never away from coniferous trees. In January, February and March of 1902-'06-'13 they were common, and numbers nested in the coniferous woods within a few miles of Wolfville. (See *The Auk*, vol. 23, July 1906, p. 339.)
528. *Acanthis linaria linaria* (Linn.). REDPOLL.—Irregular winter visitor—common some seasons, rare or absent others. During the spring of 1914 they were exceedingly abundant in this locality, and almost daily a flock, ranging in numbers from fifty to five hundred birds might be seen, even as late as May 1st. They were apparently all of the one species, which is the only one I have noted here.
529. *Astragalinus tristis tristis* (Linn.). GOLDFINCH.—Common summer resident; irregularly common in winter. Nests July 1st to 14th in hardwood trees. Often observed in March and April in large flocks. Seen in winter in smaller numbers.

533. *Spinus pinus pinus* (Wils.). PINE SISKIN.—Permanent resident, common some seasons, rare or absent others; very irregular generally. These birds seem to have no particular month for nesting; I have observed nests as early as April 27 (1913); and again as late as Aug. 4th (1898). My notes also show nesting records for every month between those mentioned. They were common during the winters of 1902-'06-'13, when the Crossbills nested here.
534. *Plectrophenax nivalis nivalis* (Linn.). SNOW BUNTING; "SNOW-BIRD."—Winter visitor, not so common as in former years. When they first arrive from the north, about Nov. 1st, these birds congregate in flocks on the Grand Pré meadows, and feed about the oat-fields with the Horned Larks. Flocks containing several hundreds are not uncommon. With the advent of winter and deep snow these flocks go further south, and the bird is no longer seen in large numbers. During January and February small flocks are noted about our orchards and withered gardens, but with less frequency and in smaller numbers than in former years.
536. *Calcarius lapponicus lapponicus* (Linn.). LAPLAND LONGSPUR.—Rare and irregular winter visitor. On February 8, 1916, I identified the Lapland Longspur—one specimen being taken on that date on the Grand Pré. From that date till March 2nd I frequently observed small numbers of these birds feeding on the Grand Pré with scattered flocks of Horned Larks and Snow Buntings, and other specimens were secured. Four of these specimens are now in the Provincial Museum at Halifax. No other authentic record for the province exists save

the reference to J. M. Jones having shot some on one occasion at Cole Harbour, Halifax Co., as mentioned in Downs's Catalogue of Birds of Nova Scotia (1888).

540. *Poæcetes gramineus gramineus* (Gmel.). VESPER SPARROW.—Common summer resident. Two records for winter, December 25, 1915 and January 21, 1916. Occurs from April 20th (9 years) to about November 1st. Nests on the ground in upland pastures.
- 542a. *Passerculus sandwichensis savanna* (Wils.). SAVANNAH SPARROW.—Common summer resident, from first week in April to first part of October. Abundant on the Grand Pré meadows and common about the upland pastures and mowing fields.
- 549.1a. *Passerherbulus nelsoni subvirgatus* (Dwight). ACADIAN SHARP-TAILED SPARROW.—Common summer resident on the meadows and marshes about Minas Basin. Never noted inland, or far from salt water. Occurs from middle of May to middle of October.
558. *Zonotrichia albicollis* (Gmel.). WHITE-THROATED SPARROW.—Common summer resident. Occurs from May 1st to Nov. 15th. Frequents our open woodlands and countryside groves, nesting among the ferns or in a brush pile. Frequently heard in full song as late as the middle of October.
559. *Spizella monticola monticola* (Gmel.). TREE SPARROW.—Irregular and uncommon winter visitor. Occurs from middle of November to April.
560. *Spizella passerina passerina* (Bech.). CHIPPING SPARROW.—Abundant summer resident, arriving May 1st (9 years). Frequents our gardens, orchards and waysides.

567. *Junco hyemalis hyemalis* (Linn.). SLATE-COLORED JUNCO.—Permanent resident, abundant in summer, not uncommon in winter.
581. *Melospiza melodia acadica* Thayer and Bangs. NOVA SCOTIAN SONG SPARROW.—Very common summer resident. A few spend the winter here. By the last week in March these birds are in full song, and are common until late in November. This new subspecies was described by J. E. Thayer and Outram Bangs from a series of specimens collected by the writer at Wolfville in April, 1914 (see Proc. New England Zoological Club, vol. 5, pp. 67-68, May 29, 1914). The type is number 65,643 in the Museum of Comparative Zoology, Cambridge.
584. *Melospiza georgiana* (Lath.). SWAMP SPARROW.—Common summer resident in suitable localities, occurring from May 1st to Oct. 1st. Noted in swampy or marshy ground covered with bushes, rank grass, cat-tails or weeds.
585. *Passerella iliaca iliaca* (Merr.). FOX SPARROW.—Common transient in spring and fall. Noted from April 1st to 25th in spring and from Oct. 1st to Nov. 10th in autumn. One record Dec. 13th, 1913. In the spring the Fox Sparrows appear about our gardens and hedges in small scattered flocks, and are heard singing gaily even when the ground is white with snow. During the fall migration they seem to prefer the covers and copses along the countryside. They do not nest in the province, Newfoundland being their chosen breeding ground.
595. *Zamelodia ludoviciana* (Linn.). ROSE-BREADED GROS-BEAK.—Uncommon summer resident. A few observed in the thickets and copses about the country.

During June (1915) a male was daily observed and heard singing in an apple orchard in Wolfville, but apparently he was unmated.

611. *Progne subis subis* (Linn.). PURPLE MARTIN.—Two records for this vicinity. On May 8th, 1914, a male was seen flying over Gaspereau village, and was readily identified by its dark color and familiar note. An effort has been made to attract them to my grounds at Wolfville but without success until June 14, 1917, when a female arrived and stopped for two days about a box I had erected. At Windsor, Hants County, I have seen these birds regularly for some years, and have watched them about their nesting boxes.
612. *Petrochelidon lunifrons lunifrons* (Say). CLIFF SWALLOW; "EAVE SWALLOW".—Common summer resident; from first week in May to middle of September.
613. *Hirundo erythrogaster* (Bodd.). BARN SWALLOW.—Common summer resident. Occurs from May 2nd (9 years) to middle of September. Two seen as late as October 5th (1915). This species, as well as the preceding one, has been much persecuted by the pugnacious House Sparrow, and this fact may account for the marked decrease in numbers in this and other localities. These birds are of inestimable value to the farmer, and no pains should be spared to afford them protection.
614. *Iridoprocne bicolor* (Vieill.). TREE SWALLOW.—Common summer resident. April 22nd (9 years) to about September 1st. Nests latter part of May. For some years two pairs have nested in boxes near my house, and the consequent absence of flies and mosquitoes in our immediate vicinity has been very marked.

616. *Riparia riparia* (Linn.). BANK SWALLOW.—Common summer resident about suitable nesting localities. Seen from first week in May till middle of September. They breed in large numbers in the high sand-banks at Long Island Beach and Starr's Point. Nest about June 1st.
619. *Bombycilla cedrorum* Vieill. CEDAR WAXWING.—Common summer resident. Rarely seen before last week in May, or later than last week of September. No records for winter. Nests latter part of June.
621. *Lanius borealis* Vieill. NORTHERN SHRIKE.—Formerly not uncommon winter visitor, occurring from December to April. Now rare and irregular. Two records for autumn, August 4th, 1913, and October 16, 1915.
624. *Vireosylva olivacea* (Linn.). RED-EYED VIREO.—Common summer resident, May 25th (9 years) to about September 1st. Nests latter part of June about our orchards and ornamental groves, but occasionally in localities remote from settled districts.
629. *Lanivireo solitarius solitarius* (Wils.). BLUE-HEADED VIREO.—Rather uncommon summer resident, arriving first week in May. Observed in the wooded regions. Nests early in June.
636. *Mniotilta varia* (Linn.). BLACK AND WHITE WARBLER.—Not uncommon summer resident, occurring from about May 8th to middle of September. Observed in open woodlands and shady coniferous groves. Nests about June 1st on the ground.
645. *Vermivora rubricapilla rubricapilla* (Wils.). NASHVILLE WARBLER.—Fairly common summer resident from first of May to first of September. Prefers open woodland areas with scattered hardwood trees. Nests first week in June, on the ground.

647. *Vermivora peregrina* (Wils.). TENNESSEE WARBLER.—
Rare summer resident. This warbler was first identified on June 1st, 1915. My attention was attracted by the loud and stirring song, which Chapman likens to the Nashville, though the latter has much less volume. The bird was hard to approach and exceedingly active, but with the aid of my binoculars I was soon satisfied as to the identity. Later I secured a specimen which I still have in my collection. Several were observed daily until about June 10th, when they disappeared from the locality. The next year, June 3rd, 1916, I saw three of these birds about the same vicinity and to my delight two pairs lingered about, and I soon discovered that they were nesting. On July 5th I saw the female feeding her young, and by July 10th they had flown. In June, 1917, the species was fairly common about Wolfville.
- 648a. *Compothlypis americana usneæ* Brewst. NORTHERN PARULA WARBLER.—Common summer resident, from May 10th to Sept. 15th. Frequents woodland regions, particularly those sections in which the trees are covered with "beard moss" (*Usnea barbata*), of which the nest is cleverly constructed.
650. *Dendroica tigrina* (Gmel.). CAPE MAY WARBLER.—
This is probably our rarest warbler. On June 2nd 1915, at Black River, I heard what I supposed to be the song of the Bay-breasted Warbler. Approaching nearer, I caught sight of the bird, hopping leisurely about on a small spruce. My glasses instantly told me I had stumbled on something unusual, a new bird for this region. Returning three days later, I found the bird in exactly the same locality, and by this time was able to identify

it as the Cape May Warbler. On June 4th of the following year (1916) I was surprised to find several in the old vicinity, all males. They were in a damp spruce wood, consisting of tall slender spruces—the sort of habitat which is favored by the Ruby-crowned Kinglet. Nearby was a more open stretch, on a little higher ground, with some birches showing among the spruces. This locality was too far from home to permit repeated observations, but I believe they nested there.

652. *Dendroica aestiva aestiva* (Gmel.). YELLOW WARBLER; "YELLOW BIRD."—Common summer resident from May 10 to September. One of our common garden birds, and seems to prefer living in close proximity to our houses.
654. *Dendroica caerulescens caerulescens* (Gmel.). BLACK-THROATED BLUE WARBLER.—Found in our heavy coniferous forests, remote from settled districts. Nests about the middle of June. Fairly common.
655. *Dendroica coronata* (Linn.). MYRTLE WARBLER.—Common summer resident, April 20th to November. One record as early as March 23rd (1909). Found in open woodland everywhere, preferring coniferous trees. Nests last of May.
657. *Dendroica magnolia* (Wils.). MAGNOLIA WARBLER.—Common summer resident from May 8th to September. Found in thickets of spruce and fir bordering open pasture land; also in shady groves of coniferous trees. Nests about middle of June.
659. *Dendroica pennsylvanica* (Linn.). CHESTNUT-SIDED WARBLER.—Fairly common summer resident, from May 12 to about first of September. Found most commonly about the dry hillsides, among the hardwood copses and thickets of the wooded areas.

660. *Dendroica castanea* (Wils.). BAY-BREASTED WARBLER.—Uncommon summer resident. Arrive regularly during the first week in June, when for a few days they are not uncommon. By the 10th they have moved on, and are rarely met with during the nesting period.
661. *Dendroica striata* (Forst.). BLACK-POLL WARBLER.—Not uncommon during the spring migration, June 1 to 10th. No records later than June 20th. For some inexplicable reason, these birds betake themselves for the nesting period to the small storm-swept islands off the southern coast of this province where they nest about July 1st.
662. *Dendroica fusca* (Müll.). BLACKBURNIAN WARBLER.—Uncommon summer resident. Found most frequently in the heavily timbered districts about Black River Lake, especially in sections where spruces and firs predominate.
667. *Dendroica firens* (Gmel.). BLACK-THROATED GREEN WARBLER.—Common summer resident, May 4 to Sept. 15th. Nests first week in June. Found commonly about the woodland pastures and in fact wherever there are enough coniferous trees to form a grove.
- 672a. *Dendroica palmarum hypochrysea* Ridgw. YELLOW PALM WARBLER.—Summer resident, common locally. During the spring and autumn migrations these warblers may be seen about our gardens and country roadsides. The nesting season finds them in the interior where they favor the peat bogs and broad barrens. I have frequently observed their nests about the middle of May.

674. *Seiurus aurocapillus* (Linn.). OVEN-BIRD.—Summer resident, common in suitable localities. Occurs from about May 20th to about the middle of September, in deep shady woods of mixed growth. Nest on the ground in early part of June, composed of moss, with an unique dome-shaped cover which completely screens the eggs from above. The entrance on the side resembles an oven, hence the bird's name.
675. *Seiurus noveboracensis noveboracensis* (Gmel.). WATER-THRUSH.—Not uncommon summer resident in the wilder and more remote parts of the county. My observations of this shy bird have usually been made near sluggish streams in the dense woods, where the thick tangled undergrowth affords him his coveted shelter and breeding ground.
679. *Oporornis philadelphia* (Wils.). MOURNING WARBLER.—Exceedingly rare summer resident. One record only, a male, taken at Black River on June 11, 1905, by myself. This specimen is now in the Provincial Museum at Halifax (acces. no. 2865).
681. *Geothlypis trichas trichas* (Linn.). MARYLAND YELLOW-THROAT.—Common summer resident, from May 15th to October. Observed most commonly in hardwood thickets, bordering wet areas, but also in upland pastures and open woodland where thick undergrowth occurs.
685. *Wilsonia pusilla pusilla* (Wils.). WILSON'S WARBLER.—Rare summer resident. One specimen, a male, taken in June 1895 (R. W. T.). A second male was taken June 7, 1917. No other observations for this region.

686. *Wilsonia canadensis* (Linn.). CANADIAN WARBLER,—Rather uncommon summer resident. Prefers damp swampy thickets and is generally observed near the ground. Two nests believed to be of this species have been found near here. They were similarly located, being well concealed in the mossy roots on the underside of an upturned tree. Both nests had been molested by some marauding jay or crow, and the eggs were broken.
687. *Setophaga ruticilla* (Linn.). REDSTART.—Common summer resident about gardens and ornamental trees, also observed in the wayside groves of the country. May 13th to Sept. 1st.
697. *Anthus rubescens* (Tunstall). AMERICAN PIPIT.—Formerly common during the fall migration, but much less so of recent years. Three specimens were taken Oct. 10, 1915, on the Grand Pré, two of which are now in the Provincial Museum at Halifax. Fall migration at this point lasts from about September 10th to November 1st.
704. *Dumetella carolinensis* (Linn.). CATBIRD.—Common summer resident. Last week in May to September, about our alder thickets, blackberry and raspberry tangles, especially when these occur near water and not too far from human habitation. Nests about middle of June. Until recently these birds were rarely seen within the confines of Wolfville. I remember with what delight I welcomed a pair to our garden raspberry bushes some twenty years ago—the first of the species I had ever seen inside the town limits. This pair mated and reared their young successfully. Since that date the Catbird seems gradually to have become a not uncommon garden bird, and in the spring of 1915, three

pairs nested not far from my house. The song is wonderfully rich, and the bird's imitative powers are quite unique and well developed.

722. *Nannus hiemalis hiemalis* (Vieill.). WINTER WREN.—Uncommon summer resident. More observations for October than for any other month. During the breeding season I never observe these birds except in the secluded wood-land regions, but in the autumn they are often seen about the brush piles and thickets nearer civilization.
726. *Certhia familiaris americana* (Bonap.). BROWN CREEPER.—Permanent resident, not common. In the spring and summer this bird is usually met with in the heavily timbered districts to the south; but in late fall and winter it is no uncommon sight about our orchards and shade trees. Its note is a mouse-like squeak, similar to that of the Golden-crowned Kinglet, but in April I have heard them burst into song which would do credit to any warbler. The first time I heard this surprising outburst I was at a loss to account for it, since the season was early and no warbler but the "Myrtles" had returned. I was quite amazed when, after careful search, I came upon the modest source, none other than the hitherto-supposed songless little creeper.
727. *Sitta carolinensis carolinensis* Lath. WHITE-BREASTED NUTHATCH.—Permanent resident, much less common than formerly. Only one observation for the nesting season, June 9th, 1913.
728. *Sitta canadensis* Linn. RED-BREASTED NUTHATCH.—Permanent resident, common some seasons, rare or absent others. The occurrence of this bird, like that of the Cross-bill and Pine Siskin, seems to

depend upon the abundance of the seed-bearing cones of the evergreens. Thus in 1902, 1906, 1913, when Crossbills nested in the county, Red-breasted Nuthatches were very common all winter, spring and summer. Other years their occurrence is rare and irregular, and what winter records I have were all made in the remote lumber woods.

735. *Penthestes atricapillus atricapillus* (Linn.). CHICKADEE.
—Common permanent resident. Observed in spring and summer in wooded sections more or less remote from settled districts; in fall and winter, commonly seen about our orchards, hedge-rows and gardens. Nests late in May. This cheery little fellow responds readily to kind treatment. I have them feeding in my garden on bits of suet, bones, etc., all through the winter months. Last spring (1916) a pair nested in a box provided for them, and (due to the enforced absence of cats about our immediate locality) were able to get their brood off in safety.
- 740a. *Penthestes hudsonicus littoralis* (Bryant). ACADIAN CHICKADEE.—Permanent resident, fairly common. Rare some winters. Frequents evergreen trees and thickets, usually in low swampy land. Nests latter part of May. These birds rarely, if ever, leave the evergreen woods. They may often be seen in fall and winter feeding in twos and threes in company with the spry little Kinglets, but unlike the preceding species, do not venture into our orchards and gardens. Their note to me sounds like, "Sick-a-dee-dee"; while that of the other species is rather more clear-cut and more in keeping with the name—"Chickadee".

748. *Regulus satrapa satrapa* Licht. GOLDEN-CROWNED KINGLET.—Permanent resident, more common some years than others. Rarely observed far from the evergreen woods. These tiny birds build a most beautiful nest, usually pensive from near the end of long spruce limbs, concealed among the thick green sprays. The nest is ball-shaped, constructed almost invariably of green moss (*Schreiber's*) which is woven together with shreds of bark, plant down, bits of lichen, moss and hairs, and lined with feathers. They lay 8 to 10 small eggs, piled closely; and a crowded nest full of young Kinglets is a laughable sight, and must afford a truly terrifying problem to the tiny parents.
749. *Regulus calendula calendula* (Linn.) RUBY-CROWNED KINGLET.—Summer resident, of local distribution. Common in restricted areas. First appearance April 23rd (3 years). Most commonly observed during the breeding period in thick evergreen woods of spruce and fir—low-lying, mossy woods in unsettled districts seemingly preferred. In 1916 a pair of these birds nested on the "Ridge" near Wolfville—a most unusual occurrence.
756. *Hylocichla fuscescens fuscescens* (Steph.). VEERY; WILSON'S THRUSH.—Rather rare summer resident. Seems to prefer the remote back-woods regions to the south, favoring the tangled alder thickets and swamps.
- 758a. *Hylocichla ustulata swainsoni* (Tschudi). OLIVE-BACKED THRUSH.—Uncommon summer resident. Some years ago a nest was discovered at Long Island. It contained 4 eggs, and was built in a spruce tree (six feet up), in damp, coniferous woods.

- 759b. *Hylocichla guttata pallasii* (Cab.). HERMIT THRUSH.—
 Common summer resident. Occurs from last week
 in April to end of October. Nests about June 1st.
 Found in shady woods of mixed growth, seeming
 to prefer the proximity of a lake or river.
761. *Planesticus migr torius migratorius* (Linn.). ROBIN.—
 Abundant summer resident. Rather rare during
 the winter months. It is a generally accepted fact,
 I believe, that those robins which spend the winter
 in the Province are not our native birds, but rather
 are stragglers which have summered much farther
 north—this province being the southern limit of
 their range. During recent winters I have repeatedly
 seen them feeding on the frozen fruit of the common
 ground juniper, and their occurrence about here
 at that season is more common than formerly.
766. *Sialia sialis sialis* (Linn.). BLUEBIRD.—Rare and
 irregular. Two records only. Several seen Sep-
 tember 2nd, 1910, at Kingston. These were feeding
 on rowan berries with the robins and had been
 there for several days. September 10, 1902, three
 were observed in an apple orchard near Wolfville.

*List of Species known to Breed in the Grand Pré
Region :*

The following is a list of the 91 forms whose nests or fledglings I and my brother, Dr. H. F. Tufts, have personally seen in the region covered by my paper. It is presented in order to clearly indicate what species we have actually observed breeding here:

A. O. U. Nos. 7, 47, 51, 130, 133, 194, 228, 230, 263, 298, 300a, 331, 332, 333, 334, 337, 352, 360, 364, 372, 375, 388, 390, 393a, 394, 400, 402, 412, 420, 423, 428, 444, 459, 461, 463, 466a, 467, 477, 484, 486a, 488, 494, 509, 511b, 515, 517, House Sparrow, 521, 522, 529, 533, 540, 542a, 558, 560, 567, 581, 584, 595, 612, 613, 614, 616, 619, 624, 629, 636, 645, 648, 652, 654, 655, 657, 659, 662, 667, 672a, 674, 681, 686, 687, 704, 726, 728, 735, 740a, 748, 749, 758a, 759b, 761.