

BIRDS OF TORONTO, ONTARIO.

BY JAMES H. FLEMING.

Part I, Water Birds.

TORONTO, the capital city of Ontario, is situated on the north shore of Lake Ontario, about forty miles east of the western end of the lake, in Lat. 43° 39' 35" N., Long. 79° 23' 39" W. The lake is at this point about 240 feet (Harbor Commissioner's gauge, zero, 244.8) above sea level.

The topography of the city and the country surrounding it is peculiar and a review will aid in understanding the ornithological conditions. The city for a greater part of its width is protected from the lake by a sandbar and island, once continuous. The sandbar runs west from near the eastern city limits for nearly three miles till it is divided by the Eastern Channel, and sending a spur north encloses what is known as Ashbridge's Bay. This is really a marshy lagoon of considerable size, and though filled in, in places, still affords food and shelter for many species of birds. Into this bay originally drained some eleven creeks, and at its western end the River Don, which now is confined to an artificial channel and flows into Toronto Bay somewhat further north than where the original outlet of Ashbridge's Bay was. The narrow sandbar that divides this bay from the lake is an important feature in the ornithological history of Toronto. It has been divided by an artificial cut giving access to the lake; the western portion is known as Fisherman's Island, and from here as well as the bay itself have come many unusual records. The building up of this portion of the bar with houses has seriously affected the freedom of several species of waders, which no longer call here on migrations.

From the Eastern Channel, Toronto Island runs in a westerly direction for nearly three miles, till about two miles south of the city, then turns north towards the city, giving the island a more or less triangular shape, and ending in the Western Sandbar, which is divided from the city by the Western Channel, the original outlet of Toronto Bay, which is itself inclosed on the south and west by the island, and on the east by Ashbridge's Bay. The island, originally covered with pine, has been invaded by sand, and

for many years was very nearly treeless; it is deeply cut into from the bay side by many marshy lagoons and channels. Of late years a good deal of filling in has been done; many houses have been built along the lake front, and the planting of willows and other soft-wooded trees, particularly at Island Park, has given shelter and increased the food supply, inducing many birds to stop here on migrations that formerly passed over the city; warblers such as the Cape May, the Tennessee, and the Connecticut, that were regarded as accidental, have become regular migrants.

Toronto Bay itself has suffered from the sewerage poured into it and several species of aquatic plants that afforded food for wild fowl have been killed out, but some ducks, such as the Long-tailed Duck or Cowheen, have found the conditions not unfavorable, and in winter whenever the ice allows, resort to the sewers in considerable numbers. These sewers now represent some six or seven small streams that formerly emptied into the bay from the north.

From the Western Channel the city runs along the open lake for three miles to the western city limits, following the inward sweep of the lake, which forms what is known as Humber Bay, the Humber River flowing into its western end about three quarters of a mile further on. Westward along the lake, Mimico Creek, the Etobicoke River, and, west again, the Credit River enters the lake, at a point thirteen miles from the center of the city.

Returning again to the city, the land rises gradually from the water front for some two and a half miles, and at North Toronto is 160 feet above the lake. From here an ancient lake margin rises abruptly some 70 feet to a plateau which sweeps across the back of the city and is broken only by the valley of the Don on the east, and the Humber on the west, and a few small ravines; a good deal of wood remains along this rise. This ancient water margin is one of a number (said to be thirteen) that exist between here and Lake Simcoe, some 60 miles further north; the highest point, 26 miles north of the city, near King, is 780 feet above Lake Ontario; it then declines till at Allendale on Lake Simcoe it is only 493 feet.

The shores of Lake Ontario about Toronto are low except on the east, at Scarboro (nine miles from the center of the city), where the land rises to 324 feet above the lake, and forms precipitous cliffs along the shore for some distance. Highland Creek and the Rouge River flow into the lake east of this point.

Toronto had originally many small ravines, through which flowed the streams that emptied into the water front. Most of these ravines are now filled in; in the northeast part of the city, in what is known as Rosedale, ravines of considerable depth exist and cross the back of the city to the valley of the Don; to the west of the city the ravines are not so numerous, though there are several between the western city limits and the Humber. This river and the Don run for some distance through flats between high banks.

Originally the city was covered by dense forests, and is so described in the early surveys (the first survey was made in 1793). Much of this timber was pine and hardwood mixed, but there were tracts of solid pine. This pine has long disappeared, only a stick remaining here and there on the ridge behind the city. There is much second growth pine and hardwood, and in the ravines outside the city some of the original forest remains. There are many wild places still remaining where forest birds may find suitable breeding places. In the city the streets are very generally planted with shade trees; there are many trees about the houses, and in the parks and open places there is plenty of shelter and food for birds.

A list of the birds recorded from the north shore of Lake Ontario would include only five species not given here; of these the Whooping Crane¹ and Magpie² are accidental; the Prothonotary, Golden-winged, and Hooded Warblers will eventually be taken here. It has been thought better to confine the list to the most important migration point on the lake, and to a place that has been the most carefully worked.

Toronto lies directly in the path of a great migratory route equidistant from the Atlantic, the Mississippi, and James Bay. There is strong presumptive evidence that two lines of flight converge, if not cross, here, one passing west through the Great Lakes, the other north towards Hudson Bay.

In preparing this paper I have traced all the unusual records back to the original specimens, and in all cases, except where mentioned, I have compared local specimens of every species recorded. The migration dates given are based very largely on specimens, and in the case of the waders exclusively so; consequently many

¹ McIlwraith, *Birds of Ontario*, 1894, 116.

² Auk, XV, 1898, 274.

of the dates are well within the mark, and can no doubt be extended. I have not thought it wise to give the average date; the amount of material is not sufficient, and in any case unless the records are made continuously in one place the results are misleading. In giving the dates between which a species has been found here, I have used those that have occurred more than once, and those that stand alone have been given as earliest or latest as the case may be.

From a very early period in the city's history there has been a more or less active interest taken in natural history, which has resulted in two or three collections of birds coming down to us, whose history is well known, and which give a very good idea of the ornithological conditions between 1840 and 1850. Of these the collection made by the late Hon. G. W. Allen was the largest and contained about 145 species. To the influence of Dr. Wm. Brodie we owe the formation of a small society which published its reports in the 'Proceedings of the Canadian Institute' from 1889 to 1891, and afterwards printed four numbers of the 'Biological Journal of Ontario' in 1894; these reports I have used largely, also the collection made by the society at that time. Mr. J. Hughes Samuel has allowed me to use his collection and records; the latter are of great importance as they cover a number of years of continuous collecting at Toronto Island, and I have particularly used them to correct my warbler dates. Mr. John Maughan, Jr., has allowed me to examine his large collection of mounted birds, part of which is now in the Provincial Museum, and I have found much useful data, particularly among the larger birds. I have also examined many rare records in the collection of Mr. J. H. Ames; Mr. C. W. Nash has allowed me to quote a paper published in 'Forest and Stream' (Vol. 38, 1892, 77) on 'Shore Birds Near Toronto,' and I have based many wader records on specimens taken by him. There are many mounted birds in the possession of sportsmen in the city, which have also been examined. My own collection of Toronto birds is a considerable one, and this paper is largely based on it.

1. **Colymbus holboëllii.** HOLBØELL'S GREBE.—Spring and fall resident. A female taken April 12, 1896, is not in breeding plumage; full plumaged birds are rare. April 28–June 6 and August 22, 1905. Young birds are not uncommon in the Lake during October and probably earlier. Latest record, November 24, 1900.

2. **Colymbus auritus.** HORNED GREBE.—Common resident in spring and fall, March 14 to April 23 (probably to May); and from middle of September to end of November (October 27, 1896). Spring birds are in full plumage, or nearly so, when they arrive.

3. **Podilymbus podiceps.** PIED-BILLED GREBE.—Common resident in spring and fall, April 4 to end of May; September 7 to December 15. Mr. C. W. Nash took a male June 28, 1898; and it has been reported as breeding.

4. **Gavia imber.** LOON.—Regular migrant, April 16 to May 31 (abundant May 22, 1894); earliest fall record, September 7, 1895; a bird taken October 19, 1904, is young, and one taken November 4, 1899, is an adult in winter plumage. Loons probably remain on the lake till the end of November.

5. **Gavia lumme.** RED-THROATED LOON.—Regular migrant, not uncommon; adults in breeding plumage, April 28 to June 3; earliest record a male in winter plumage, March 14, 1899; in fall from October 6 to November 30. There are no winter records.

6. **Cepphus grylle.** BLACK GUILLEMOT.—One record, a female taken December 19, 1895. It is possible that this bird is *C. mandtii*, as its beak is small, and the plumage very white. The specimen is in a sealed case and a closer examination is necessary.

7. **Uria lomvia.** BRÜNNICH'S MURRE.—In 1893 this species entered Lake Ontario in considerable numbers; the first appeared at Toronto November 29, and they increased in numbers through December, all eventually dying of starvation. For the next ten years the birds were noted annually in November and December, but in decreasing numbers, none surviving very long. The migration of this maritime species into the fresh waters of the Great Lakes was so remarkable and accompanied by so many unusual features that I have recorded elsewhere a fuller account.¹

8. **Alca torda.** RAZOR-BILLED AUK.—One specimen taken December 10, 1889, now in the Canadian Institute.² There is also a Hamilton record in the collection of Mr. John Maughan, Jr., taken December 9, 1893.

9. **Alle alle.** DOVEKIE.—One record, a female taken November 18, 1901,³ in collection of Mr. John Maughan, Jr.

10. **Stercorarius parasiticus.** PARASITIC JAEGER.—Of regular occurrence, rare; adults taken June 20, 1891, and October 20, 1894; both in the light phase of plumage, the latter not quite adult. I have examined six local specimens and as many more from other points on Lake Ontario and Lake Erie; the majority are immature in the dark phase, and only one, a Toronto bird, is in the light phase of plumage.

¹ 'The Unusual Migration of Brünnich's Murre in Eastern North America.' (Proceedings IV International Ornithological Congress, London, 1905).

² Proceedings Canadian Institute, 1890, 200.

³ Auk, XIX, 1902, 94.

11. **Pagophila alba.** IVORY GULL.— One specimen taken by Mr. Wm. Loan on December 25 (1887 ?), and still in his possession. This is an immature bird heavily spotted with black. There is reason to believe that this gull is probably a regular visitor in winter to Lake Ontario.¹

12. **Rissa tridactyla.** KITTIWAKE.— Accidental migrant; several were taken in November, 1899,² and one on October 31 of the same year; of these, all I examined were immature. Specimens recorded in 1889³ I never saw and are possibly incorrect.

13. **Larus glaucus.** GLAUCOUS GULL.— Regular winter resident, not common, from December 3 to March 25. Mr. Maughan has one taken May 4, 1893, a male in the white phase of the immature. All that I have examined are in the mottled or white plumages, none being adult.

14. **Larus leucopterus.** ICELAND GULL.— One record, an immature female taken December 12, 1898, in the collection of Mr. J. H. Ames.⁴

15. **Larus marinus.** GREAT BLACK-BACKED GULL.— Regular winter resident, not uncommon, November 24 to February 16; earliest record September 18, 1896; latest May 26, 1897. All the birds I have examined or seen alive were mature.

16. **Larus argentatus.** HERRING GULL.— Common resident, abundant in spring and fall; does not breed here, but keeps up a regular communication with the lakes north of here, except in winter.

17. **Larus delawarensis.** RING-BILLED GULL.— Regular migrant, March 25 to April 25; and from September 25 to November 16, and probably later; earliest record August 20, 1890. Said to be a winter resident on the lake.

18. **Larus atricilla.** LAUGHING GULL.— Two records, one a mature male taken May 23, 1890, in Mr. Loan's collection⁵; the other a female taken June 1, 1898, in my collection. This bird lacks the black hood.

19. **Larus philadelphia.** BONAPARTE'S GULL.— Common spring and fall resident, April 19 to the middle of May, and from September 20 to November 6; earliest fall record August 4, 1890; latest, December 15, 1897.

20. **Sterna caspia.** CASPIAN TERN.— Regular spring migrant, April 29 to May 28. Sometimes occurs in flocks of some size (up to fifty). I have no fall records though this tern may occur in October; there are no immature birds in local collections.

21. **Sterna forsteri.** FORSTER'S TERN.— Possibly a regular migrant; I have examined only two birds, one a male, May 22, 1894, the other taken October 19, 1899.

22. **Sterna hirundo.** COMMON TERN.— Common migrant, May 25

¹ McLlwraith, *Birds of Ontario*, 1894, 42.

² Auk, XVII, 1900, 177.

³ Proceedings Canadian Institute, 1890, 190.

⁴ Auk, XVIII, 1901, 106.

⁵ Proceedings Canadian Institute, 1890-91, 41.

to June 3 (probably through May); returning late in August, and remaining through the greater part of September; a small flock are said to have been in the vicinity of Humber Bay all through the summer of 1905.

23. *Hydrochelidon nigra surinamensis*. BLACK TERN.—Regular migrant, May 22 to June 16, and from July 27 to September 5 (probably all through May and September). A pair seen May 31, 1906, were apparently breeding.

24. *Æstrelata hasitata*. BLACK-CAPPED PETREL.—I have in my collection two specimens, one a male picked up dead on Toronto Island by Mr. George Pierce, October 30, 1894¹; the other taken seventeen miles west on the lake shore by the late Mr. H. J. Baker, at about the same time, but the date is uncertain. The first bird was in very bad condition and must have been dead some days.

The first bird is much grayer on the back and head than the second; the ash-gray edging of the feathers is very pronounced on the back, while in the second the edging is browner and scarcely visible, the whole back being dark brown instead of gray as in the first. In the second bird the crown is brown, almost black, shading to grayish brown on the back of the neck, which is not divided by a white band; the cheeks and ear coverts are like the crown; the feathers of the forehead are sooty brown edged with white. In the first the tarsi and toes are as described, but in the second they differ; the exposed portion of the tibia to just above the heel joint is yellow (in the dried skin), the joint itself all around, and the back of the tarsus brownish black, the front yellow, the toes and webs yellow to the first joint, the rest black.

24. *Sula bassana*. GANNET.—A young bird taken in 1861 at Oshawa, 34 miles east of Toronto, is in the museum of Toronto University.²

25. *Phalacrocorax carbo*. CORMORANT.—Accidental; one record, a male taken November 21, 1896³. This bird was in an extremely exhausted condition when found, and is the only one I have seen from anywhere on the Great Lakes.

26. *Phalacrocorax dilophus*. DOUBLE-CRESTED CORMORANT.—Rare migrant; spring records are unusual (June 4, 1899); the majority of birds examined are young, August 30 to November 1.

27. *Merganser americanus*. AMERICAN MERGANSER.—Regular winter resident; the first flight occurs in September, but the bird is usually resident from early in November to the end of March; latest spring record, May 11, 1891.

28. *Merganser serrator*. RED-BREASTED MERGANSER.—Common migrant April 16 to May 7, and from October 15 to November 16; I have no winter records but Mr. C. W. Nash has found this species here from September 15 to April 17.

¹ Biological Review of Ontario, I, 1894, 11, 12.

² Canadian Journal, VII, 1862, 239.

³ Auk, XVII 1900, 176.

29. **Lophodytes cucullatus.** HOODED MERGANSER.—Common migrant, March 29 to the end of April; in the fall the first flight occurs in August (August 15, 1897), and from October 26 to November 9 (probably to the end of November).

30. **Anas boschas.** MALLARD.—Rare migrant; I have records only for November, but my records are incomplete.

31. **Anas obscura.** BLACK DUCK.—Common migrant, March and April; the first return in August (rarely in July), plentiful in October and November; earliest record March 15, 1899, latest December 6, 1897.

This is the breeding form in southern Ontario north at least to the Muskoka Lakes; a female taken alive on her nest at Barnsdale, Lake Joseph, in May, 1905, belonged to this form, and it is no doubt the breeding form much further north.

32. **Anas obscura rubripes.** RED-LEGGED BLACK DUCK.—Common migrant. The dates given for the Black Duck include this rather doubtful form, which remains later and consequently more are taken in the fall than of the other.

33. **Chaulelasmus streperus.** GADWALL.—Rare migrant; a male in Mr. Maughan's collection taken November 2, 1901.

34. **Mareca americana.** AMERICAN WIDGEON.—Regular migrant; not common; the only dates I have are April 12 and October 27.

35. **Nettion carolinensis.** GREEN-WINGED TEAL.—Regular migrant, March 28 to probably May 1, returning early in September; latest record November 24, 1897.

36. **Querquedula discors.** BLUE-WINGED TEAL.—Regular migrant, April 2 to May 15 (May 31, 1906) and from July 28 to October 5. Not as common as it was; said to have formerly bred.

37. **Spatula clypeata.** SHOVELLER.—Rare migrant; spring records are unusual; all the fall records are between September 1 and 27.

38. **Dafila acuta.** PINTAIL.—Regular migrant, not very common. April 6 is my only spring record; in the fall, October 20 to December 6.

39. **Aix sponsa.** WOOD DUCK.—Regular migrant; April 1 to May 10; in the fall from late in August to October 27.

40. **Aythya americana.** REDHEAD.—Common migrant, and an irregular winter resident; a flock remained during the winter of 1901-02, leaving on March 15. A small flock of non-breeding birds remained through the summer of 1906, but they usually leave before April 16.

This duck decreased till about 1890 when no birds were seen; the increase began soon afterwards and they rapidly regained their old numbers.

41. **Aythya vallisneria.** CANVAS-BACK.—Rare winter resident. A small flock was here in the winter of 1900-01; a male was taken on February 23, 1901, and a flock was reported on November 21; another male was taken on March 31, 1905.

Canvas-backs were practically unknown here for many years, due no doubt to the general decrease that took place soon after that of the Red-heads in eastern North America; the increase has resulted in a wide

extension of range, and recently Lake Ontario has been visited regularly by small flocks. Lake Erie seems to be still the center of abundance on the Great Lakes.

42. *Aythya marila*. SCAUP DUCK.—Common migrant and regular winter resident, from October 18 to March 4 (April 16, 1906). A small flock of non-breeding birds remained during the summer of 1906.

43. *Aythya affinis*. LESSER SCAUP DUCK.—Common migrant; does not winter here; arrives in March, remaining till May (May 22, 1894); earliest fall record July 21, 1890, latest October 29, 1895.

44. *Aythya collaris*. RING-NECK DUCK.—Rare migrant, April 1 to May 15.

45. *Clangula clangula americana*. AMERICAN GOLDEN-EYE.—Common migrant, and a regular winter resident, November 23 to April 27; Mr. Nash gives May 6 as latest date.

46. *Clangula islandica*. BARROW'S GOLDEN-EYE.—One record, a male, taken April 18, 1885, recorded by Mr. Ernest Seton¹; this specimen was not preserved.

47. *Charitonetta albeola*. BUFFLE-HEAD.—Common migrant, April 20 to May 1; earliest February 27, 1894; latest November 13, 1900.

48. *Harelda hyemalis*. OLD-SQUAW.—An abundant winter resident, November 15 to May 12 (latest June 2, 1899). Whenever the western channel is free of ice, flocks of many hundreds of Cowheen, as they are called here, assemble to feed on the sewerage that flows into Toronto Bay at that point, and become very tame, allowing a close study of their habits; many die of starvation during the winter. In 1894 birds taken on May 2 were in full winter plumage, and by May 12 some were in full summer plumage and others had only partially changed, but as a rule they leave before changing.

49. *Histrionicus histrionicus*. HARLEQUIN DUCK.—Migrant, probably accidental. A female recorded by Mr. Ernest Seton,² and a male (no date), are in the collection of Mr. Maughan; a male (no date), and a female taken October 20, 1894,³ are in my collection; both females are adults and the males are in moulting plumage; all four are, I think, fall birds.

50. *Somateria spectabilis*. KING EIDER.—Not uncommon in November and December; a few remain through the winter (February 4, 1889, Hamilton, Ont.). Birds in full plumage are rare; a male taken on November 18, 1895,⁴ by Mr. Nash, now in the collection of Mr. J. H. Ames, is fully adult. Males in winter plumage and females in the full red plumage are rare, the majority being young. The males predominate. The usual dates are November 6 to December 6.

51. *Oidemia americana*. AMERICAN SCOTER.—Regular fall migrant, in October and probably November, never common; adult females are

¹ Auk, II, 1885, 337.

² Auk, II, 1885, 337.

³ Auk, XVII, 1900, 176.

⁴ Auk, XIII, 1896, 347.

rare, and no males in full plumage have been taken, nearly all the birds examined having been immature. Males in full plumage no doubt occur, as one was taken at Belmont Lake, near Havelock, Ont. (100 miles east of Toronto, October, 1900).

52. **Oidemia deglandi.** WHITE-WINGED SCOTER.—Regular migrant; common March 1 to May 11; in the fall through October and November; a few are said to winter; spring birds are nearly all in full plumage.

53. **Oidemia perspicillata.** SURF SCOTER.—Regular fall migrant, in October and November; the majority of the birds examined are immature, but there is a full plumaged male in Mr. Maughan's collection.

54. **Erismatura jamaicensis.** RUDDY DUCK.—Regular fall migrant; not common. Full plumaged birds are said to have been taken, but all examined are immature. They occur in October (October 16, 1895).

55. **Chen caerulescens.** BLUE GOOSE.—An adult taken on the lake shore, seventeen miles west of Toronto, is in my collection; another probably taken here is in the collection at Trinity University; both birds are adult. This goose has been taken at Ottawa, London, and Gravenhurst in Ontario.

56. **Branta canadensis.** CANADA GOOSE.—Regular migrant, March 10 to 30, returning October 16 to November 12; these dates can probably be extended. Earliest date February 24, 1906.

57. **Branta canadensis hutchinsii.** HUTCHINS'S GOOSE.—A female taken October 19, 1905, is in the collection of Mr. Maughan. The identification of this goose is frequently incorrect; a reputed local record was sent to me from England which proved to be a small Canada Goose; but Hutchins's Goose is of rare occurrence in Southern Ontario; one in my collection was taken at Port Rowan on Lake Erie, October 6, 1896.

58. **Branta bernicla glaucogastra.** WHITE-BELLIED BRANT.—Two records, a male taken November 12, 1899, and a female taken December 2, 1895; there are no specimens in the old collections.

59. **Olor columbianus.** WHISTLING SWAN.—Rare; probably accidental. I have seen only two fresh birds, one of which is now in the collection of Mr. C. K. Rogers; there are two in the collection at Trinity University that were probably taken here. It seems likely that at one time this swan was of regular occurrence here.

60. **Olor buccinator.** TRUMPETER SWAN.—There are no recent records, but Prof. Hincks described in 1864 a new swan *Cygnus passmori*, taken here, which was really a young Trumpeter; and between 1863 and 1866 he was able to get six local birds to examine.¹ There are two specimens in the collection at Trinity University that were no doubt taken here.

61. **Botaurus lentiginosus.** AMERICAN BITTERN.—Summer resident, April 11 to Nov. 4; abundant in spring and fall; breeds (May 31, 1906).

¹ Proc. Linnæan Society of London, Zoölogy, VIII, 1864, 1-7; and IX, 1868, 298-300.

62. *Ardetta exilis*. LEAST BITTERN.—Common summer resident from early in May to the middle of September; latest record, November 28, 1894; breeds (June 28, 1894).

63. *Ardetta neoxena*. CORY'S LEAST BITTERN.—Sixteen of this interesting bittern have been taken at Toronto (about two-thirds of the known specimens), between May 18, 1890, and September 8, 1899. These dates are also the earliest and latest. The young have been taken from August 3 to 17. All the birds have been taken in a comparatively small extent of marsh in Ashbridge's Bay, and those who have taken them agree that Cory's Bittern is much more easily approached than the Least Bittern, though more difficult to distinguish in the marsh owing to its dark color. All, or nearly all, exhibit albinism in a slight degree, and in the case of an adult male taken August 7, 1899, melanism is also present. A nest was taken June 15, 1898.¹ For a list of Toronto records see Auk, XIII, 1896, 11, and XIX, 1902, 77.

64. *Ardea herodias*. GREAT BLUE HERON.—Common migrant, March 19 to April 7, and probably later; a young bird was taken July 24, 1891, but they usually commence to return a week later (August 1, 1897). They are common through August, and a few remain till late in November (November 17, 1901). Earliest record February 1, 1891 (Mr. J. H. Ames).

65. *Herodias egretta*. AMERICAN EGRET.—A specimen in my collection taken at Port Union (17 miles east of Toronto) May 24, 1895; this is the only definite record, but white herons have been reported from various points on the lake that seem to be of this species. Dr. Wm. Brodie says a pair bred regularly many years ago (about 1870) at Port Union and several were shot.

66. *Butorides virescens*. GREEN HERON.—Regular migrant, not common, April 30 to May 24; they reappear in June (June 25, 1904), and from August 7 to September 17.

67. *Nycticorax nycticorax naevius*. BLACK-CROWNED NIGHT HERON.—Regular migrant, rather rare in spring, May 24 to June 14; young birds August 8 to 27. In 1900 Mr. J. Hughes Samuel recorded Night Herons from August 1 to October 12.

68. *Nyctanassa violacea*. YELLOW-CROWNED NIGHT HERON.—A young bird taken August 15, 1898, by Mr. John Maughan, is in the Provincial Museum.²

68. *Grus mexicana*. SANDHILL CRANE.—A pair taken many years ago at Toronto are in the collection of Mr. Maughan.

69. *Rallus elegans*. KING RAIL.—Migrant, probably accidental; one was taken in September, 1903, and there are two other local records.

70. *Rallus virginianus*. VIRGINIA RAIL.—Summer resident; arrives late in April and is common in May; young birds from July 7 to August 27. A few remain till October. Breeds (July 6, 1891).

¹ Auk, XVIII, 106.

² Auk, XXIII, 1906, 220.

71. **Porzana carolina.** SORA RAIL.—Common summer resident, April 24 to September 21. Breeds (May 11 to June 31).

72. **Porzana noveboracensis.** YELLOW RAIL.—Regular fall migrant, rare; earliest August 5, 1896; usually from September 12 to October 15. There is but one spring record, a male taken by Mr. Nash, April 24, 1899.

73. **Ionornis martinica.** PURPLE GALLINULE.—One taken at the mouth of the Rouge River (16 miles east of Toronto), April 8, 1892.¹

74. **Gallinula galeata.** FLORIDA GALLINULE.—Common summer resident, abundant in migrations; arrives about the middle of April, departs towards the end of October. A young bird taken September 29, 1898; downy young, June 6, 1895; nest taken June 23, 1889.

75. **Fulica americana.** AMERICAN COOT.—Regular migrant, fairly common, April 11 to May 29; returns in September and October (September 29, 1899).

76. **Crymophilus fulcarius.** RED PHALAROPE.—Regular migrant in the fall, rare; all I have examined are young birds, September 12 to November 14, but in the museum of the Geological Survey at Ottawa there is a full plumaged bird said to have been taken here. This is probably the commoner of the three phalaropes, and is usually taken among duck decoys.

77. **Phalaropus lobatus.** NORTHERN PHALAROPE.—Regular migrant, rare; an adult male taken June 7, 1890, is in my collection, and I have seen an adult female taken here, but such records are exceedingly rare. Young birds occur regularly, September 22 to October 31.

78. **Steganopus tricolor.** WILSON'S PHALAROPE.—Rare migrant; adult female May 22, 1855; adult male June 2, 1890, and a young female August 15, 1890, are in my collection. Mr. J. H. Ames has a female taken May 25, 1890, and a young bird. A supposed hybrid belonging to Mr. T. Harmer of Tacoma, Wash., proved to be a young bird of this species. Besides these there are two or three more in local collections, all adults. There are indications that at one time this species was of much more regular occurrence than it is now.

79. **Recurvirostra americana.** AMERICAN AVOCET.—Accidental migrant, two records, one a bird in full plumage in the possession of Mr. Wm. Loan, the other an adult male in the gray plumage taken September 19, 1901.²

80. **Philohela minor.** AMERICAN WOODCOCK.—Regular migrant, not common; April 2 to 29, returning in July (July 10, 1891) and August (August 17, 1902), and from October 12 to November 5. Earliest record, March 25, 1893; latest, November 11, 1896. Woodcock may possibly breed here.

81. **Gallinago delicata.** WILSON'S SNIPE.—Regular migrant; fairly common in May, returning September 11 to October 27; earliest record, March 28, 1897; latest, November 24, 1894.

¹ Biological Review of Ontario, I, 1894, 10.

² Auk, XIX, 1902, 79.

82. **Macrorhamphus griseus.** DOWITCHER.—Regular migrant, not common, May 16 to 31; one taken August 1, 1894, is in full plumage; one taken August 24, 1891, and one September 15, 1889, are young birds.

83. **Macrorhamphus scolopaceus.** LONG-BILLED DOWITCHER.—Rare migrant; there is a specimen in Mr. Ernest Seton's collection, taken September 3, 1888; one without date in my collection, and a full plumaged bird from Hamilton (39 miles west), August 12, 1891.

84. **Micropalama himantopus.** STILT SANDPIPER.—Regular fall migrant, not common; adults in full plumage, July 18 to 28, and young August 9 to September 26; there are records of birds from June 25 to 30 but I have not seen these specimens.

85. **Tringa canutus.** KNOT.—Regular migrant, rather common in spring, May 25 to June 6; I can find no adult birds on the return flight; the young come from August 23 (earliest August 9, 1896) to the first week of September (Sept. 5, 1886, Hamilton, Ont.) and are not common.

86. **Arquatella maritima.** PURPLE SANDPIPER.—Regular fall migrant, rare, October 27 to December 7; two birds in my collection are apparently adults. This species is probably overlooked owing to the lateness of its migration.

87. **Actodromas maculata.** PECTORAL SANDPIPER.—Common fall migrant. Mr. Nash gives July 23, 1891, as the earliest record; usually from August 13 to 31; and September 26 to October 27, 1891.

88. **Actodromas fuscicollis.** WHITE-RUMPED SANDPIPER.—Regular migrant, not common, May 26 to June 14 (latest June 21, 1898); returning August 23 to September 24; and October 26 to November 2.

89. **Actodromas bairdii.** BAIRD'S SANDPIPER.—Regular fall migrant, not uncommon; all I have examined are young birds, August 12 to September 24. Mr. Nash gives July 28 to October 10.

90. **Actodromas minutilla.** LEAST SANDPIPER.—Abundant migrant, May 4 to 20; the adults return during the first half of July (July 4, 1891) and the young from August 10 to 24. Mr. Nash has records from June 28 to July 19, and to the middle of September.

91. **Pelidna alpina sakhalina.** RED-BACKED SANDPIPER.—Abundant migrant May 12 to June 2 (latest June 13); returning October 9 to 22, and through the first half of November. Adults are rare in fall.

92. **Erolia ferruginea.** CURLEW SANDPIPER.—A single specimen, taken by Mr. Wm. Loan about 1886¹; this bird was afterwards destroyed except the head which is now in my collection, and which belonged to a nearly adult bird.

93. **Ereunetes pusillus.** SEMIPALMATED SANDPIPER.—Regular migrant, common May 24 to June 2, returning in July (July 21, 1891); the young August 24 to September 10. Mr. Nash gives for 1891, from May 24 to June 13; July 21 to August 10, when first young were observed,

¹ McIlwraith, *Birds of Ontario*, 1886, 2; 1894, 145.

and on till middle of September. I can find nothing approaching *E. occidentalis*.

94. ***Calidris arenaria***. SANDERLING.—Regular migrant, common May 21 to June 2; returning August 24 to 28; the young September 4 to 12.

95. ***Limosa fedoa***. MARBLED GODWIT.—Rare migrant in spring, probably accidental; a female taken May 30, 1895, is in the Provincial Museum, and one taken June 7, 1890, is in my collection.

96. ***Limosa hæmastica***. HUDSONIAN GODWIT.—Rare fall migrant; a young bird taken August 20, 1898, is the earliest record; two specimens taken September 25, 1894, are in winter plumage; two taken October 20, 1890, are adults in changing plumage. Mr. Wm. Loan has a specimen in full plumage, and Mr. J. Hughes Samuel saw one June 13, 1895.

97. ***Totanus melanoleucus***. GREATER YELLOW-LEGS.—Regular migrant; common April 10 to May 13; earliest March 26, 1901, latest spring record June 9, 1894. Mr. Nash says "returning, first July 28 (1891), few seen till October 27, on which day I saw last; last year I noted a flock November 19."

98. ***Totanus flavipes***. YELLOW-LEGS.—Regular migrant, common April 30 to May 17, the young August 7 to September 15. Mr. Nash says, "seldom in flocks; saw none this spring (1901); on return first appeared July 18 (adult female), but few were seen from that time until August 22, when they became common, and remained until October 6." Latest record, October 18, 1890.

99. ***Helodromas solitarius***. SOLITARY SANDPIPER.—Regular migrant, local and not very common; I have only two spring records, March 16, 1902, and May 18, 1893; returning, adults July 10 to August 10, young August 13 to September 1. Mr. Nash gives September 16, 1891, as latest record.

100. ***Symphemia semipalmata inornata***. WESTERN WILLET.—Rare migrant. I can find only five specimens in local collections; the only one with a date is a female in full plumage taken July 20, 1898, in the Provincial Museum; an adult in winter plumage is in my collection. A careful comparison of the local specimens proves them to belong to the western form.

101. ***Pavoncella pugnax***. RUFF.—A male in full plumage but with the face feathered, was taken on Toronto Island in 1882, and is now in the museum of the Geological Survey at Ottawa. In 'Catalogue of Canadian Birds,' Macoun, p. 177, the date is given as 1875, but this is incorrect, and the female there recorded is a specimen of the Bartramian Sandpiper.

102. ***Bartramia longicauda***. BARTRAMIAN SANDPIPER.—Said to have been an abundant migrant; now rare. In 1893 birds were taken from May 6 to June 7, and were said to have bred a few miles west of the

city; Mr. George Pierce took full grown young in July or August of that year. There are no recent records.

103. **Tryngites subruficollis.** BUFF-BREASTED SANDPIPER.— Regular fall migrant, rare, September 1 to October 4.

104. **Actitis macularia.** SPOTTED SANDPIPER.— Common summer resident, April 23 to October 3; earliest nest May 14, latest June 16.

105. **Numenius hudsonicus.** HUDSONIAN CURLEW.— Regular migrant, not uncommon, May 27 to June 2; the old birds return early in July (July 4, 1904, July 17, 1906), and the young from September 1 to 15, but are very rare.

106. **Numenius borealis.** ESKIMO CURLEW.— There are two specimens, said to have been taken on Toronto Island in 1864, in the museum of the Geological Survey at Ottawa; the authority is Mr. S. Herring, who mounted the birds. The Eskimo Curlew can never have been more than accidental on Lake Ontario. I have carefully examined all the material available, and have so far found only two more records, one in the McIlwraith collection taken at Hamilton,¹ I think an adult; the other was taken at Wolf Island, near Kingston, Ont., October 10, 1873, and is marked "female." I think is it a young bird; it is now in the British Museum.

107. **Squatarola squatarola.** BLACK-BELLIED PLOVER.— Regular migrant, fairly common, May 22 to June 2; returning in July (July 23, 1890). Of two females taken in August, 1891, one, on the 28th, is adult, the other, on the 31st, is a young bird. Young birds taken at Hamilton from August 9 to September 5, are in my collection; Mr. Nash gives the latest dates as September 15, 1898, and October 17, 1895.

108. **Charadrius dominicus.** AMERICAN GOLDEN PLOVER.— Fall migrant, rare; said to have been formally abundant at irregular intervals. Mr. Wm. Loan describes a flight that occurred about 1887, when thousands of birds assembled on the eastern sandbar at night, and returned to the open fields at daybreak. I have no records between 1898 and 1905, when five young birds were taken on September 27. Old birds in changing plumage occur from August 25 to September 15, young from September 16 to 27; there are some records as late as November 9, but I have not seen these birds.

109. **Oxyechus vociferus.** KILLDEER.— Summer resident, not uncommon, April 6 to October 24; earliest March 25, 1891. Breeding records, June 3 and 18, full sets. Killdeer are very abundant and widely distributed during migrations.

110. **Ægialitis semipalmata.** SEMPALMATED PLOVER.— Common migrant, May 12 to June 2 (latest June 6, 1895); Mr. Nash has records of adults July 5, 1890, and July 23, 1891; the young arrive in August (August 24 to 29). Latest records, September 10, 1892, and October 26, 1895.

111. **Ægialitis meloda.** PIPING PLOVER.— Regular migrant, not very common, May 16 to 24 (earliest May 1, 1891); and June 20 to 25.

Curiously enough all the old specimens in local collections are referable

¹ McIlwraith, *Birds of Ontario*, 1894, 160.

to *meloda*, and the last record is June 20, 1894; the first record of *circumcincta* is May 24, 1891, and all recent records belong to this form.

112. *Ægialitis nivosæ*. SNOWY PLOVER.—Two records: one specimen taken by Mr. J. Foreman in May, 1880, was identified by Mr. Ernest Seton¹ and has since been destroyed; the other is in the collection of Mr. J. H. Ames, and was taken July 6, 1897.²

113. *Arenaria morinella*. RUDDY TURNSTONE.—Regular migrant, common in spring, May 18 to June 2; an adult taken June 16, 1895, and a flock of seven seen June 17, 1894; the young arrive in September (September 4, 1891).

HYPOTHETICAL LIST.

1. *Gavia arctica*. BLACK-THROATED LOON.—I recorded³ a specimen in error; it proves to be a very small Loon, in winter plumage. A pair are mentioned in Prof. Hincks's list of birds sent to Paris.⁴

2. *Uria troile*. MURRE.—A specimen recorded by me is an error.⁵ A careful examination of the printed records prove they are based on hearsay evidence, and as far as I know no specimens exist from any where on the Great Lakes.

3. *Stercorarius pomarinus*. POMARINE JAEGER.—I can find no specimens and no reliable printed records from anywhere on the Great Lakes; the records probably refer to *S. parasiticus*.

4. *Stercorarius longicaudus*. LONG-TAILED JAEGER.—This species no doubt occurs on Lake Ontario but I have not seen specimens. Mr. W. E. Saunders has recorded the taking of two at Rondeau, Ont., on Lake Erie,⁵ October 2, 1900.

5. *Larus franklinii*. FRANKLIN'S GULL.—This is given in Prof. Hincks's list;⁶ recent records no doubt refer to *L. atricilla*.

6. *Xema sabinii*. SABINE GULL.—This is given in Prof. Hincks's list but there is nothing known about the specimen sent to Paris.

7. *Sterna paradisæa*. ARCTIC TERN.—This is given in Prof. Hinck's list; possibly it refers to *S. forsteri*.

8. *Sterna antillarum*. LEAST TERN.—The Ontario records all

¹ Auk, II, 1885. 335.

² Auk, XIV, 1897. 412.

³ Auk, XVII, 1900. 176.

⁴ 'Catalogue of Birds Known to Inhabit Western Canada. By the Rev. W. Hincks, F. L. S., &c.' Journal of the Board of Arts and Manufactures for Upper Canada, VII, 1867, 9-12 (also reprinted as a separate). This list was prepared in view of sending a collection of birds to the Paris Exhibition of 1867; it contains two hundred and seventy-one species, of which twenty-nine were not obtainable. By 'Western Canada' is meant Ontario, but the birds sent were with few exceptions taken at Toronto.

⁵ Macoun, Catalogue of Canadian Birds, 1900, 22.

⁶ Ottawa Naturalist, May, 1902.

refer to immature Black Terns; I have seen no specimens from the Great Lakes.

9. *Pelecanus erythrorhynchos*. AMERICAN WHITE PELICAN.—A rare straggler; has been reported several times, but no specimens have been taken here, though there are several Lake Ontario records.

10. *Pelecanus occidentalis*. BROWN PELICAN.—Prof. Hincks gives this in his list, and one was sent to Paris, no doubt the one recorded in one of the agricultural journals of an earlier date, the reference to which I have been unable to find. The bird was said to have been taken near Toronto.

11. *Somateria dresseri*. AMERICAN EIDER.—Prof. Hincks gives this in his list, and a pair were sent to Paris. I have carefully examined a number of eiders from the Great Lakes, including several recorded as this species; all prove to be *S. spectabilis*.

12. *Chen hyperborea*. LESSER SNOW GOOSE.—I have a specimen probably taken here, and Mr. John Bunker remembers one having been shot here some years ago. I have recently examined five specimens taken in southern Ontario; they all belong to this form, and it seems likely that *C. h. nivalis* does not occur on the Great Lakes.

13. *Anser albifrons gambeli*. AMERICAN WHITE-FRONTED GOOSE.—Said to have occurred here, but there seem to be no specimens in local collections. This goose, however, occurs in southern Ontario; two were taken at Port Perry, Ont., April 15, 1894, one of which I examined; there is an adult in the museum at Toronto, and one is recorded by McIlwraith, both from the St. Clair Flats.

14. *Plegadis autumnalis*. GLOSSY IBIS.—One was mounted by the Rev. John Doel many years ago and was said to have been taken at Toronto; McIlwraith records a pair from Hamilton, one of which was sent to Paris and is the one referred to in Prof. Hincks's list.

15. *Porzana jamaicensis*. BLACK RAIL.—Prof. Hincks gives this in his list, and one was sent to Paris, possibly the one taken at Ingersoll, Ont., in 1857.¹ Young Virginia Rails have been confused with this species.

16. *Numenius longirostris*. LONG-BILLED CURLEW.—There has been considerable confusion in the identification of the three curlews credited to the Great Lakes; a very careful search has failed to find any authentic specimen from this region of the Long-billed Curlew; I have, however, found the Hudsonian Curlew so named, and the Eskimo Curlew marked Hudsonian. There is in the museum of Toronto University a correctly identified Long-billed Curlew, but the collection is a general one, and the bird may have come from anywhere. Prof. Hincks gives it in his list, and one was sent to Paris; there are none in any Ontario collections I have examined.

17. *Ochthodromus wilsonius*. WILSON'S PLOVER.—Prof. Hincks gives this species in his list, and a pair were sent to Paris; beyond this nothing is known.

¹ Canadian Journal, IV, 1859, 389.