

PLATE IX, FIG. 1. HOUSE TRAP. For description see 'Instructions for Bird Banding' by Frederick C. Lincoln, U. S. Department of Agriculture Circular 170, page 10. Notice the vestibule in the near right corner of the trap; the single outer door standing ajar; then the double inner doors standing ajar; birds will follow the food trail through into the trap; a small proportion of them will learn the way out.

An excellent trap, taking not only small birds, but also the birds too large for the government sparrow trap.

PLATE IX, FIGURE 2. NET OR DROP TRAP. This is a net of string; but wire netting can be used on the same frame; light wood frame 4" high; inch knobs on corners to prevent dropping tight to the ground in case a bird is caught by the frame. Notice door frame, and drop door, to drive the birds into the gathering box, which is also here shown. The net is dropped when the birds gather under it, by pulling the string, so as to jerk away the stick which props it up.

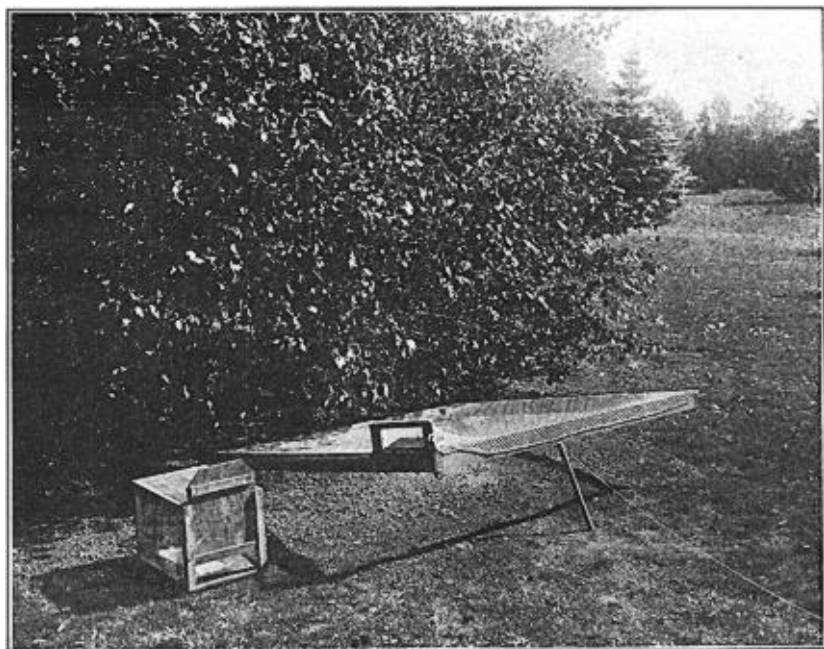
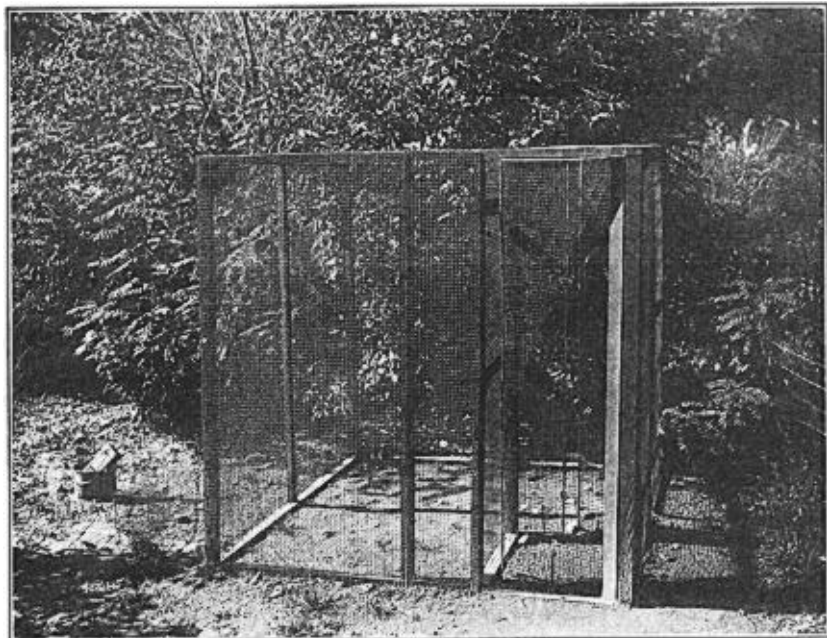
Williamson Building Cleveland, Ohio.

SOME BIRD NOTES FROM INDIAN BAY, MAN.

BY WILLIAM ROWAN.

THE following is a list of birds observed and collected at Indian Bay, Shoal Lake, Lake of the Woods, Man., by my wife and myself, with the Biological Station of the University of Manitoba as headquarters, during the period from June 15 to August 4, 1920. Indian Bay is in Manitoba, the Ontario boundary line running north and south a little way out in the bay and indicated on some of the islands. With the exception of some specimens secured at High Lake, (in Ontario), all were collected in Manitoba. The trip to this lake, as also the one to Falcon Lake, was undertaken primarily to study the avifauna of the huge sheet of muskeg lying between these sheets of water and the Biological Station. The Snake and the Falcon Rivers were the respective water courses followed on these two outings.

The Biological Station, founded this year (1920), is admirably situated for all kinds of field work. There are a number of distinct types of habitat in the immediate neighborhood, three of which are outstanding:—1. The Bay itself; 2. The forest encircling the Bay; 3. The muskeg beyond the forest and stretching forty miles or more to the north and west. Ornithologically the forest was the most fruitful.



PHOTOGRAPHS FROM S. PRENTISS BALDWIN.

1. HOUSE TRAP.

2. NET OR DROP TRAP.

I have no doubt that the accompanying list is far from complete. By mid-June many of the birds were already silent and most of them were found by means of systematic and arduous tramps through incredibly dense forest studded with thousands of deadfalls but many must have escaped detection altogether. Of those still in song, specimens of all but one were secured.

My thanks are due to my wife Reta for her constant company and help. Despite the fact that countless thousands of mosquitoes found her exactly to their liking; that the going in the forest was often trying even to the hardened Indians, and that portages had to be made through marsh, floating muskeg and the densest forest tangle, she never failed to carry and use the small gun with excellent effect, or to hunt, hot, tired and mosquito-eaten, for lost birds.

My thanks are also due to Messrs. Drysdale and Dunn of Indian Bay for their frequent help and many courtesies. Also to Mr. P. A. Taverner for the kind determination of several subspecies from skins collected.*

1. **Gavia immer.** LOON. Two or three pairs only bred in the Bay. They were also found in small numbers on the various lakes. By the middle of July both young and old were flying and beginning to move about generally.

2. **Larus argentatus.** HERRING GULL.—Scarce in the Bay, though seen a number of times, mostly singly. They were plentiful in one corner of Falcon Lake, adults and young, and probably bred here, but our visit was not made till the end of July. Since no specimens were collected, identification may be considered uncertain by some readers of these notes. The birds were, however, certainly not Ring-billed Gulls, and the young conformed with the typical immature Herring Gull plumage, not that of the California Gull.

3. **Sterna hirundo.** COMMON TERN.—On the evening of July 18 some twelve or fifteen Common Terns flew over the station in a westerly direction at a great height. For nearly a week later similar flocks crossed over in the same direction every evening. Subsequently, with the exception of two individuals observed feeding in the bay, no more were seen. The notes so characteristic of this species were heard on each occasion and hence identification was certain.

4. **Hydrochelidon nigra surinamensis.*** BLACK TERN.—A strong breeding colony of these birds was situated at the west end of Snake Lake, a small lake about two miles in length and a mile from the station.

* Birds marked thus were collected, the remainder observed.

Though this lake appeared to be suited in every way to the feeding habits of these birds, the majority did their fishing in Indian Bay. As soon as the young were strong on the wing (the end of July) they were escorted to the Bay, where the whole colony roosted overnights on a small rocky island. Snake Lake was crowded with wild rice which may have proved an obstacle to fishing in its waters.

5. *Phalacrocorax a. auritus*. DOUBLE-CRESTED CORMORANT.—The first of these birds were seen about the middle of July, after which they became more frequent and sometimes passed over in parties of ten or twelve.

6. *Anas platyrhynchos*.* MALLARD.—Found breeding in the reedy corners of the Bay and lakes, and in the small swamps. Some may have bred in the muskeg, but we got no evidence. Mallards, and indeed all other ducks, were scarce in the neighborhood, owing, no doubt, to the persistent shooting by the Indians throughout the year.

7. *Querquedula discors*. BLUE-WINGED TEAL.—Several times noted on the Falcon River and on Falcon Bay.

8. *Dafila acuta*. PINTAIL.—A single bird was seen flying over the muskeg late in July.

9. *Marila sp.* SCAUP DUCK (LESSER?).—Noted on Falcon Bay only, but a number of times and the species may have bred here.

10. *Oidemia perspicillata*. SURF SCOTER.—Seen twice on Falcon Bay. The bird behaved as though she had young in the reeds, always returning when put up. For this reason she was not collected.

11. *Branta c. canadensis*. CANADA GOOSE.—Two of these birds were put up from a small marsh on the morning of July 6.

12. *Botaurus lentiginosus*.* BITTERN.—Breeding in all the marshes and possibly in the muskeg, though it was not till late in the season that they were noted here, when the families had dispersed and the young were flying well and feeding themselves.

13. *Ardea h. herodias*. GREAT BLUE HERON.—Only three pairs of these beautiful birds were located, one on Indian Bay, one on Snowshoe Bay and the last at High Lake.

14. *Rallus virginianus*.* VIRGINIA RAIL.—Bred commonly in the marshes.

15. *Porzana carolina*.* SORA.—Abundant as a breeder in the marshes and in the reedy portions of the lakes.

16. *Coturnicops noveboracensis*. YELLOW RAIL.—A single Yellow Rail was put out of the reeds in the mouth of the Falcon River in Falcon Lake. The white wing patches made identification certain.

17. *Fulica americana*. COOT.—Found only in the largest marsh where several pairs bred.

18. *Gallinago delicata*. WILSON'S SNIBE.—Not observed till the end of July when wader movements had begun. Several individuals were then noted here and there.

19. **Pisobia minutilla.** LEAST SANDPIPER.—
20. **Ereunetes pusillus.** SEMI-PALMATED SANDPIPER.—A mixed flock of these two sandpipers was noted on Snake Lake on July 30. Judging from the large percentage of pale rumps, the latter species well outnumbered the former.
21. **Limosa haemastica.** HUDSONIAN GODWIT.—A single bird of this species was seen on Snake Lake on July 30. It was still in its red plumage, although its precipitate flight as it twice passed the canoe and its white and black tail would have put identification beyond doubt.
22. **Totanus flavipes.*** YELLOW-LEGS.—Two of these birds were seen on July 22 flying up the railway track. Subsequently they were noted daily, as many as a dozen being seen together.
23. **Tringa s. solitaria.** SOLITARY SANDPIPER.—A single specimen was put out of the bed of the Snake River on June 27 a few miles down from High Lake.
24. **Actitis macularia.*** SPOTTED SANDPIPER.—On July 3 two adults were put up in the gravel pit. The one collected turned out to be a female almost ready to lay. These birds had evidently met with misfortune elsewhere earlier in the season and were hunting for new quarters. A single young one with down still adhering was collected while flying over the canoe on Falcon Lake at the end of July. Another was seen, also towards the end of July on one of the islands in Indian Bay. These were the only birds of their kind noted.
25. **Oxyechus vociferus** KILLDEER.—Only one nesting pair was located near the metre house. Towards the end of July the species became more or less plentiful.
26. **Charadrius meloda.** PIPING PLOVER.—A single bird seen on the shore of the Bay on July 24.
27. **Bonasa umbellus togata.*** CANADA RUFFED GROUSE.—Of general distribution and breeding freely. Most of the broods noted were numerically small.
28. **Cathartes aura septentrionalis.*** TURKEY BUZZARD.—It is difficult to estimate the abundance of these birds on account of their extensive peregrinations in search of food. They were constantly seen on Indian, Snowshoe and Falcon Bays. Also at High Lake.
29. **Circus hudsonius.** MARSH HAWK.—A fairly plentiful breeder in the whole district.
30. **Accipiter velox.** SHARP-SHINNED HAWK.—Seen only twice on the way to High Lake.
31. **Buteo platypterus.** BROAD-WINGED HAWK.—This species appears to be a breeder here. It was noted in June and July in the wilder parts of the muskeg, where the rocky "islands" were plentiful and thickly clothed with huge trees. Another hawk, which may have been the Red-shouldered or the Swainson's, frequented the same ground.
32. EAGLE.—Two young eagles, whether Bald or Golden could not be ascertained as they kept out of range, were seen on High Lake.

33. **Falco s. sparverius.** SPARROW HAWK.—Breeding here and there, though not abundantly.

34. **Pandion haliaetus carolinensis.** OSPREY.—Several pairs bred in the district.

35. **Bubo virginianus.** GREAT HORNED OWL.—Owls were apparently rare here. This species and the next were the only ones seen or heard, one pair—almost certainly breeding—of each. The loud sonorous hoot of this owl was heard almost nightly throughout the stay, always around the same spot. This was on the densely forested edge of the muskeg and though two hunts were made for him, nothing more than a newly moulted feather was found.

36. **Surnia ulula caparoch.** HAWK OWL.—One of these birds was seen six or seven times during the stay, at the bathing beach, always when we were in the water and the gun on land. Twice it came over our heads at a low level, which, if tantalizing, at all events made identification certain.

37. **Coccyzus erythrophthalmus.*** BLACK-BILLED CUCKOO.—A single pair of these birds was found breeding, though the specimen collected, an adult female, towards the end of July, was secured nearly a mile from the breeding spot and may have come from elsewhere. The only other of this species seen, was noted by Mr. Dunn in the grave yard a few days later

38. **Ceryle a. alcyon.*** BELTED KINGFISHER.—Bred in large numbers. In the big gravel pit alone over a dozen nesting holes of the year were found. This pit was almost a quarter of a mile from the lake. The Lake's edge, on account of its rocky nature, offered but few suitable sights and most of the nests were inland, some nearly a mile from the open water.

39. **Dryobates v. villosus.*** HAIRY WOODPECKER.—Nesting fairly plentifully, though in nothing like the numbers of the Downy and the Sapsucker. *D. v. leucomelas*, if it occurs here, was not collected or detected.

40. **Dryobates pubescens medianus.*** DOWNY WOODPECKER.—Probably the most abundant of the Woodpeckers, although the Sapsucker rivalled it closely. The Downy was however of wider distribution, nesting everywhere where suitable trees were to be found.

41. **Picoides arcticus.*** ARCTIC THREE-TOED WOODPECKER.—Not noted on Indian Bay, but found breeding on High Lake. It was noted on Falcon Lake by Prof. De Lury and his brother early in August, although we failed to find it there a little earlier.

42. **Sphyrapicus v. varius.*** YELLOW-BELLIED SAPSUCKER.—Breeding abundantly though mainly confined to the rocky areas. It was never found on the edge of the muskeg like the Downy.

43. **Phloeotomus pileatus abieticola.*** NORTHERN PILEATED WOODPECKER.—Breeding at the Bay and at High Lake, though scarce and apparently confined to the big tree areas.

44. **Colaptes auratus luteus.*** NORTHERN FLICKER.—Breeding fairly commonly throughout the district and general in distribution.

5. **Chordeiles v. virginianus.*** NIGHTHAWK.—An abundant breeder throughout on rocky ground. Straggling flocks were formed towards the end of July, the birds becoming more and more diurnal.

46. **Chaetura pelagica.*** CHIMNEY SWIFT.—This species nested in the chimney of one of the buildings and on the railway water tank. Never noted far from these two centres.

47. **Archilochus colubris.*** RUBY-THROATED HUMMINGBIRD.—Abundant everywhere.

48. **Tyrannus tyrannus.*** KINGBIRD.—A common breeder on the edge of the Bay, lakes and rivers and particularly on the muskeg.

49. **Sayornis phoebe.*** PHOEBE.—The most abundant of the Flycatchers round the station where nesting sites were plentiful if not suitable. One nest kept under observation fell four times during the season. The fifth attempt was in progress when we left. Many chose unfortunate spots, but all persisted to the bitter end in trying to achieve the impossible rather than use a new site. Many of the successful ones reared two broods from the same nest. Even in remote spots this bird was plentiful, fallen tree trunks providing the majority of nesting sites.

50. **Nuttallornis borealis.*** OLIVE-SIDED FLYCATCHER.—Found only on the edge of one of the marshes where the regular presence of the birds led one to believe that they had a nest, but this was never found.

51. **Myiochanes virens.** WOOD PEWEE.—But few of these birds were located, all in the deeper woods.

52. **Empidonax flaviventris.*** YELLOW-BELLIED FLYCATCHER.—A single specimen was observed and subsequently collected on one of the islands in the Bay.

53. **Empidonax minimus.*** LEAST FLYCATCHER.—Commoner than either of the three foregoing species, but by no means abundant.

54. **Cyanocitta c. cristata.*** BLUE JAY.—Breeding here and there. Not plentiful.

55. **Perisoreus c. canadensis.** CANADA JAY.—Three of these birds were seen while portaging from Snake Lake to the Falcon River on July 29. The portage necessitated two trips and both guns were unfortunately left for the second load.

56. **Corvus b. brachyrhynchus.*** CROW.—Abundant everywhere. Small flocks were forming in the middle of July, but many young were still being fed at the close of that month.

57. **Molothrus a. ater.*** COWBIRD.—Abundant. Flocking began early in July when the old birds left the district. Only two young were observed, one on the wing, accompanied by Chipping Sparrows, the other still in the nest of a White-throated Sparrow. The latter disappeared before he was fully fledged. The mortality amongst ground-nesters was enormous. Not a single ground nest found, and kept under observation, (with the exception of Grouse) produced young far enough advanced to

fly. Either the eggs or the chicks were in every case destroyed by squirrels or chipmunks which were very abundant. (It may be of interest to note in this connection that the Flying Squirrel was never observed here.)

58. *Agelaius phoeniceus*.* RED-WINGED BLACKBIRD.—This and the Grackle were the most plentiful of the Blackbirds, the present species being of more general distribution. They were found nesting in all the marshes and throughout the muskeg where bushes or reeds occurred. Young began to fly from the last week of June.

59. *Icterus galbula*.* BALTIMORE ORIOLE.—Fairly plentiful. Several pairs bred round the buildings and a few were noted here and there in the bush.

60. *Quiscalus quiscula aeneus*.* BRONZED GRACKLE.—A large colony of these birds bred on the edge of a small marsh about half a mile from the station. A solitary pair was also noted on High Lake.

61. *Hesperiphona vespertina* (subsp ?).* EVENING GROSBEAK.—As already recorded in 'The Auk,' the e birds no doubt bred here, though in very limited numbers. On July 24 an old bird with a single young one still being fed was noted on one of the islands but not secured. On the 26th, however, a family was found on the main land and a young bird collected and later another and an adult female.

62. *Carpodacus p. purpureus*.* PURPLE FINCH.—Of general distribution though not very plentiful.

63. *Astragalinus t. tristis*.* GOLDFINCH.—Plentiful immediately around the station and also further afield.

64. *Spinus pinus*.* PINE SISKIN.—Frequently seen, mostly in the company of Goldfinches, round the buildings. Also noted at Falcon Lake.

65. *Poocetes g. gramineus*.* VESPER SPARROW.—Only a single pair was found nesting in the gravel pit.

66. *Passerculus sandwichensis* (subsp?). SAVANNAH SPARROW.—Not abundant but of fairly general distribution. No specimens were collected and the subspecies not determined.

67. *Zonotrichia albicollis*.* WHITE-THROATED SPARROW.—With the doubtful exception of the Song, by far the most abundant of the sparrows. Found nesting everywhere in the wooded areas.

68. *Spizella p. passerina*.* CHIPPING SPARROW.—Thinly but generally distributed. Two broods appeared to be the rule with this species.

69. *Spizella pallida*. CLAY-COLOURED SPARROW.—Two or three pairs only were found, all in the vicinity of the station.

70. *Junco h. hyemalis*.* SLATE-COLOURED JUNCO.—Several pairs were located, though they were by no means plentiful.

71. *Melospiza melodia juddi*.* SONG SPARROW.—Very abundant and breeding everywhere.

72. *Melospiza georgiana*.* SWAMP SPARROW.—Plentiful in the muskeg and in the swamps.

73. *Passer domesticus*. HOUSE SPARROW.—A few pairs nested round the railway buildings. Also noted at the Indian school on Snowshoe Bay.

74. *Zamelodia melanocephala*.* ROSE-BREADED GROSBEAR.—A few pairs bred here and there. Young as well as adults were secured.

75. *Piranga erythromelas*.* SCARLET Tanager.—Noted only on Falcon Bay where a family of three or four was being escorted by its parents.

76. *Petrochelidon lunifrons*. CLIFF SWALLOW.—A single bird of this species was observed sitting on the telephone wires late in July.

77. *Hirundo erythrogastra*. BARN SWALLOW.—The bi-weekly train came in one evening in July with a freight car picked up from a siding and destined for Winnipeg the next day. This car held the nest of a pair of Barn Swallows. The parent birds arrived with the train and left with it again the next morning. These were the only birds of their kind observed.

78. *Iridoprocne bicolor*. TREE SWALLOW.—Abundant round the station and on the muskeg wherever trees occurred.

79. *Stelgidopteryx serripennis*.* ROUGH-WINGED SWALLOW.—A small colony of these birds nested in the east bank of the large gravel pit. There were about twenty nests. No Bank Swallows were apparently included. They were early in their departure and had left the place entirely by the end of July.

80. *Bombycilla cedrorum*.* CEDAR WAXWING.—Generally distributed in some numbers throughout the district.

81. *Vireosylva olivacea*.* RED-EYED VIREO.—Extreme y abundant and found nesting everywhere.

82. *Vireosylva g. gilva* WARBLING VIREO.—Found here and there but not plentiful. Only a single nest was found.

83. *Mniotilta varia*.* BLACK-AND-WHITE WARBLER.—One of the most abundant of the warblers and general in its distribution.

84. *Dendroica a. aestiva*.* YELLOW WARBLER.—Fairly abundant, but apparently confined as a nester to the drier parts.

85. *Dendroica c. caerulescens*. BLACK-THROATED BLUE WARBLER.—Only a single specimen of this beautiful bird, a male, was seen in some thick brush near the station in the middle of June. It was so close that shooting was out of the question while the growth was too thick for the bird to remain in view at anything like a reasonable distance. This annoying contingency frequently arose with the warblers.

86. *Dendroica magnolia*.* MAGNOLIA WARBLER.—A scarce breeder. Only two birds, both males, were seen or heard. One always sang from the same spot and no doubt had his mate and nest there.

87. *Dendroica pensylvanica*.* CHESTNUT-SIDED WARBLER.—Abundant and found breeding everywhere.

88. *Dendroica castanea*.* BAY-BREADED WARBLER.—A single pair

bred near the station. A family was also noted on Falcon Lake at the end of July.

89. *Dendroica fusca*.* BLACKBURNIAN WARBLER.—Except for the song of a single male heard for weeks at the same spot, where he presumably owned a nest, the note was never heard, nor were other specimens seen.

90. *Dendroica vigorsi*.* PINE WARBLER.—Only three or four birds of this species were noted throughout the stay.

91. *Dendroica p. palmarum*.* PALM WARBLER.—Only seen on one of the islands, where it bred and a young bird was collected.

92. *Seiurus aurocapillus*. OVEN-BIRD.—Thinly distributed over most of the area.

93. *Seiurus n. noveboracensis*. WATER-THRUSH.—A pair bred and reared their young successfully on one of the islands. Not noted elsewhere.

94. *Oporornis philadelphia*.* MOURNING WARBLER.—A single specimen of this species was noted near the station in the middle of June and a family party was seen near the same place towards the close of July.

95. *Geothlypis t. trichas*.* MARYLAND YELLOW-THROAT.—Fairly abundant on the edge of marshes and in the muskeg where bushes occurred.

96. *Setophaga ruticilla*.* REDSTART.—Extremely abundant and of general distribution.

97. *Dumetella carolinensis*.* CATBIRD.—A few pairs bred round Falcon and Indian Bays.

98. *Troglodytes a. aedon*.* HOUSE WREN.—Thinly but fairly generally distributed.

99. *Cistothorus stellaris*.* SHORT-BILLED MARSH WREN.—Plentiful on the floating muskeg.

100. *Telmatodytes p. palustris*.* LONG-BILLED MARSH WREN.—Abundant in some of the marshes.

101. *Sitta canadensis*. RED-BREASTED NUTHATCH.—Only noted once, on the edge of Indian Bay.

102. *Penthestes a. atricapillus*.* CHICKADEE.—A fairly abundant breeder of general distribution.

103. *Hylocichla f. fuscescens*.* VEERY.—The most abundant of the Thrushes and of general distribution.

104. *H. ustulata swainsoni*.* OLIVE-BACKED THRUSH.—Not nearly as plentiful as the Veery, but found throughout the district, particularly on the islands.

105. *H. guttata pallasi*.* HERMIT THRUSH.—The scarcest of the Thrushes and only noted on a small area near the station, where they were deemed to breed from the constant singing of the males.

106. *Planesticus m. migratorius*. ROBIN.—Thinly but generally distributed throughout.

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