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ADDITIONAL NOTES ON THE FAUNA OF KING TOWNSHIP, YORK COUNTY, ONTARIO

By R. D. USSHER



GROUP OF papers which appeared in 1930 (Snyder and Logier), under the title, A Faunal Investigation of King Township, York County, Ontario, (1930)

has served to draw attention to an area of particular interest in the Toronto region. These papers presented the results of field work carried on by members of the staff of the Royal Ontario Museum of Zoology, largely during the summer of 1926, and constituted a basis for subsequent studies.

In 1937 a survey of forest-cover, erosion, and wild life conditions was made and a report was published in 1938 under the title, *The Natural Resources of King Township* (Mayall). The writer was one of a staff concerned with this survey. This work together with observations made in the township as a resident there since 1931 and the pertinent notes by other naturalists who have visited the township more or less regularly since 1926 makes it possible to bring up to date our information on the fauna of the township with respect to those groups reported on in the original lists of Snyder and Logier.

Three additions to the list of mammals of King Township (Snyder) have been made. These, marked with an asterisk, are now recorded with annotations regarding their occurrence, together with comments on five species which appeared on the original list.

Concerning birds, the following notes deal with the breeding or summer resident forms as did the original paper (Snyder). Thirty-seven species can now be added to the list of summer birds; several of these are obviously transients in the area. Those not recorded previously by Snyder are marked with an asterisk. Information on thirty-nine species previously recorded is given where a change of status is evident or where our knowledge, such as breeding data, has been expanded or clarified. The total of summer

resident birds (June, July and August) now stands at one hundred and fifty, one hundred and five of which are known to breed there.¹

One amphibian and one reptile are added here to the list (marked with an asterisk) previously published (Logier) and comment on one form previously listed is made.

In order to avoid repetitions, references to the original papers of 1930 have been omitted in many cases; absence of the asterisk or reference to findings of the Museum's party in 1926, indicate that the species has been already recorded from the township by Snyder and Logier.

It might be noted that the "Toronto region" as interpreted in this paper refers to the area embraced by boundaries arbitrarily set at twentyfive miles outward from the city limits. This region includes all of King Township except the lower, or undrained Holland Marsh, lying downstream beyond and north-east of Bradford. Incidentally the drainage of the upper portion of the Holland River flats is a project completed since the survey of 1926. Very probably this alteration has affected the animal life of that sector, qualitatively and quantitatively. Furthermore, the twelve or more years have undoubtedly brought about a decline in the older forest cover, which would seem to have affected the animal life, unfavourably in some and perhaps favourably in other cases but not always measurably.

The writer wishes to thank the many naturalists who have supplied data for record in this

^{1.} In the Natural Resources of King Township a list of all species known to occur in King Township at all seasons is tabulated without annotations. The list includes 212 species; an additional one, the American Coot, was inadvertently omitted, making the corrected total, 213. "to which can now be added the Wilson's Phalarope (214th species) one of which the author identified near Nancy Lake on May 17, 1939."

revision. Where records are other than the writer's, authorities are acknowledged in the text. Thanks are also due to Mr. L. L. Snyder and Mr. J. L. Baillie, Jr., for suggestions during the preparation of the manuscript.

MAMMALS

Condylura cristata. STAR-NOSED MOLE.—Specimens from Nancy Lake Farm, where workings are not uncommonly seen in low ground, are now in the Museum. A nest of five young was found in the base of a pile of litter from a chicken house on May 22, 1937. An adult was picked up dead on the snow, near Nancy Lake, December 16, 1938.

Sorex fumeus fumeus. SMOKY SHREW.—Since the recording (Snyder, 1930) of a specimen from Pottageville, the only one known from Toronto region at that time, another has turned up in the R.O.M.Z. collection, a specimen taken at Etobicoke on May 12, 1900. Although not a King Township record, the specimen is of interest for the Toronto region.

Glaucomys volans. Eastern Flying Squir-Rel.—Two, reported to be of this species were captured in the southern part of the township on October 30, 1938, by Mr. W. V. Crich. They were examined in life, and the fur on the under side found to be white at the base. No specimens are known from the township, but the species has been taken at Toronto.

Synaptomys cooperi cooperi. LEMMING MOUSE. —A specimen taken at Pottageville on October 10, 1932, by Prof. A. F. Coventry is the first known from the Toronto region as here defined. The locality (Forks of Credit) from which Hope (1933) recorded the species as new for Toronto, is here considered to be outside the region. Curiously enough, one specimen taken at Forks of Credit and the Pottageville specimen were taken from traps about the same time of day on the same date. Our definition of the "Toronto region" avoids the issue of priority of capture which is often debated, in fun, as between these two specimens. Since Prof. Coventry's capture, individuals have been taken at Pottageville, September 11, 1935, by S. C. Downing, and July 30, 1936, by L. A. Prince. Specimens are in the R. O. M. Z.

Napaeozapus insignis. WOODLAND JUMPING MOUSE.—The initial record for this species was made at Nancy Lake on May 22, 1938. Two specimens taken on that day by Messrs. R. J. Rutter and T. M. Shortt, are now in the R.O. M.Z. collection. Their capture constitutes another basis for good-natured bantering on the subject of priority. On the afternoon of that

day these observers discovered two jumping mice together, apparently copulating. They were on the forest floor among dead beech leaves. When disturbed they sprang apart and "froze", apparently relying on their concealment. Mr. Rutter captured the first specimen on the ground: Mr. Shortt then secured the second which was attempting to climb a rough-barked tree and had reached a point approximately three feet from the ground. The issue was clear up to this point, when Mr. Rutter's mouse escaped. Its subsequent recapture by Mr. Rutter still leaves the matter of priority debatable. Incidentally neither of the captured mice attempted to bite when handled.

Erethizon dorsatum dorsatum. PORCUPINE.—
This interesting mammal may stray south occasionally from the Holland swamp from whence it was first reported. Mr. C. E. Hope reported one killed by a farmer near King City in 1930. A recently occupied den in a hollow beech tree on the mid-township ridge was found on May 19, 1937. During the summer of this year the species was observed near Pottageville, and trees which had been barked by it, were noted in widely separated portions of the main swamp.

Lepus americanus virginianus VARYING HARE.

—This northern species may also wander south from the Holland swamp on occasions. Two have been noted near Nancy Lake in recent years. About March 12, 1939, one was reported by description to the writer, from this section.

Odocoileus virginianus borealis. WHITE-TAILED DEER.—These animals have increased considerably since the recording of individuals by Snyder (1930). Estimates of the number now present, run from forty to four hundred (the latter, perhaps too high) practically all of which are in the Holland swamp, (Mayall, 1938). They wander south through the township, and individuals have been noted every year since 1929 at Nancy Lake Farm. A deer was put up on July 6, 1937, within sight of King village.

BIRDS

*Colymbus grisegena holboelli. ² Holboelli's Grebe.—Although undoubtedly a migrant species in the township, three were seen at Nancy Lake on August 8, 1937, and one at the same place on July 29, 1938.

*Podilymbus podiceps podiceps. PIED-BILLED GREBE.—Now known as a breeder at a few of the small lakes and sloughs; also seen with young

². Since the nomenclature of Snyder's list followed the A.O.U. Checklist the current Checklist is followed here, except as noted, rather than Taverner's Birds of Canada.

on the lower Holland River, July 7, 1937. Two broods of young were noted on Kelly Lake on June 9, 1935; a nest with five eggs was found at Nancy Lake on May 28, 1938.

*Florida caerulea caerulea. LITTLE BLUE HERON.—Two birds in the white immature plumage were seen at Nancy Lake on July 27, 1930, the first recorded occurrence in the Toronto region; they were noted again on July 29 and 30. (Ussher, 1931). Yellowish legs, relatively short bills, absence of colour in plumage, were noted. They appeared slim, and smaller than a Bittern.

Nycticorax nycticorax hoactli. BLACK-CROWN-ED NIGHT HERON.—In addition to the records mentioned by Snyder (1930), (one of which was extralimital), an immature bird was seen at a small pond near Laskay on July 30, 1937.

Botaurus lentiginosus. AMERICAN BITTERN.— The status of this species is probably not much changed, but breeding records can now be added. Two nests found in the slough east of Kelly Lake on June 9, 1935, were only fifty feet apart, one contained five eggs and the other five young several days old. Young birds just able to fly were seen in the lower Holland Marsh on August 2, 1937. Three young which had apparently just been frightened into leaving the nest by our approach, near Laskay, July 1, 1937, were observed half swimming, half floundering about among the cat-tails in fairly deep water near the nest site.

*Ixobrychus exilis exilis. EASTERN LEAST BITTERN.—This species was discovered in small numbers along the Holland River, just below Bradford, in July, 1937. Mr. W. V. Crich noted eight birds (including four immature), and found a nest with six eggs, in the same area on June 18, 1938.

*Anas platyrhynchos ptatyrhynchos. COMMON MALLARD.—Single females were seen in two different localities during the summer of 1937. On July 27 a bird with seven half-grown young was found at a small lake north-west of Kelly Lake; the young were observed in flight on August 5. This apparently constitutes the first breeding record for the Toronto region.

*Anas rubripes tristis. Common Black Duck.—It seems that the status of this species has undoubtedly changed since 1926. No summer observations had been made at that time. During the years 1929-1931 inclusive, a few were observed at Nancy Lake, in early August; in 1933 and 1934, the first were noted on July 27, and July 10, respectively. In 1937 Black Duck were found breeding in ten different localities. Two nests of nine and ten eggs were found on

May 22 in the flooded alders near the canal. Another was found in a hollow stump in the centre of a small pond near Laskay. It contained four eggs on June 3 and nine on July 1, six of which were pipped, giving an incubation period of about twenty-three days, rather shorter than usually noted. A nest with nine eggs, found on June 28 by Mr. D. A. Ross, was located in the drained marsh a good half-mile from water; this was the only indication of breeding in the central part of the Holland River flats.

A series of small ponds north-west of Kelly Lake held a concentration of Black Ducks in late July and early August, 1937. An estimate of ninety birds was made on August 5. (Mayall, 1938) They occurred together with a few Mallards, Pintails, Wood Ducks, Blue-winged Teal, and Green-winged Teal. Smaller flocks were observed at this period in the lower parts of the Holland Marsh.

*Mareca americana. BALDPATE.—A single female noted on Nancy Lake, on or about June 19, 1932, constitutes the only summer record.

*Dafila acuta tzitzihoa. AMERICAN PINTAIL.—
Two were noted in the concentration of ducks noted under the Black Duck, on July 24, 1937, and one on the 27th, all in female or immature male plumage. On July 22, 1937, in the central Holland River flats, two broken eggs, closely resembling those of the Pintail, by comparison, were picked up.

*Nettion carolinense. Green-winged Teal.— Single birds were noted in early August, 1937; one with the concentration of Black Ducks on August 5, others at small temporary ponds near Nancy Lake, August 12 and 14.

Querquedula discors. Blue-winged Teal.—On May 31, 1937, a female was flushed from a well concealed nest, with twelve eggs, in the base of a clump of rushes at the margin of a small pond at Kelly Lake. The location was in a pasture containing cattle, within a few feet of a public road. The brood had hatched by June 22. Two were flushed from a creek near Pottageville on July 31, and on August 2, three young birds were noted on the lower Holland River, and an adult at Mount Mellick pond.

These records probably indicate an increase of the species since 1926, a feature apparently true in southern Ontario generally.

Aix sponsa. Wood Duck.—Two were present at Nancy Lake from August 10 to 19, 1936. During 1937, one was seen with a large flock of Black Ducks and others, on July 24, and five were noted on a small lake nearby on July 27 by Mr. D. A. Ross and the writer. Two were seen again on Nancy Lake, August 16, 1938.

Some increase in this species may have occurred since 1926.

*Nyroca sp. Scaup Duck.—On July 27, 1935, Mr. J. L. Baillie noted three Scaup on Nancy Lake A male bird was noted on the same lake on June 4, 1937. The probabilities point to these being Lesser Scaup but in the absence of specimens specific identification remains in doubt. In this Mr. Baillie concurs.

*Lophodytes cucullatus. HOODED MERGANSER.—Single birds, apparently immature, have been noted on Nancy Lake, July 26, 1934, and July 20, 1937, and one near Pottageville on July 31, 1937.

Accipiter striatus velox. Sharp-shinned Hawk.—Baillie and Harrington (1936) record a nest and three eggs taken by Mr. S. L. Thompson, at Pottageville on May 15, 1933. This is the only breeding record for the township, and one of the few summer records. The specific name striatus is used on the authority of Snyder (1938).

Accipiter cooperi. Cooper's Hawk.—Additional summer records were obtained in 1937. Mr. D. A. Ross located a nest and four eggs, thirty-five feet up in a white pine near Laskay on May 24. The bird, which was still incubating on June 14, eventually abandoned the eggs, (now in the R.O.M.Z.). Single birds were seen on several occasions near Pottageville during the summer of 1937.

Buteo borealis borealis. EASTERN RED-TAILED HAWK .- A nest of this species was found on April 19, 1936, in the main crotch of a large dead elm, in a very open situation at the edge of the swamp near Pottageville. Incubation was apparently in progress On May 14 a young bird was visible in the nest. This site was again occupied in 1937 and a bird was flushed there on April 16. The nest was later found to be abandoned. In 1938, a pair was located in a new station near Nancy Lake; young were noted there near the nesting site, on July 7. Apparently the status has not changed markedly since 1926. The species is much less common than the next named.

Buteo lineatus lineatus. Northern Redshouldered Hawk.—This species appears to have increased considerably since 1926 and is now the best distributed and commonest breeding hawk. (Mayall, 1938). Most of the larger wooded areas contain a pair and they are very faithful to their chosen localities. A pair has bred every year since 1929 in the bush at Nancy Lake; the present nest, located sixty feet up in a large sugar maple, has been used for the last three years, and possibly longer. Repairs are made as early as the last week in March and a

young bird was seen near the site on June 22, 1938.

*Buteo platypterus platypterus. Broad-winged Hawk.—The first summer record was obtained in 1937. An adult and two immature birds were found in a mixed bushlot west of Nancy Lake Farm on July 22. A recently vacated nest, forty feet up in a hemlock was found there, and from the actions of the birds, it seemed not unlikely that they had nested. No other summer occurrences are known. The species is not definitely known to breed in the Toronto region.

*Pandion haliaetus carolinensis. OSPREY.— An individual of this species was seen at Nancy Lake on August 15, 1933, by Col. J. F. H. Ussher. Three were noted on August 2, 1937, working their way south over the lower Holland Marsh from the direction of Lake Simcoe.

Phasianus colchicus torquatus. RING-NECKED PHEASANT.—This introduced species appears to have difficulty in maintaining itself in the township, although it is obviously more common now than in 1926. In the swampy alder thickets around Nancy Lake, it was not unusual to flush ten or twelve birds in the late fall of 1933. Since then the species has been much reduced in numbers, never recovering from the severe winter of 1933-34 (Mayall, 1938).

Considerable stocking took place in 1938, when the township was made a Game Preserve Area. Three days of Pheasant shooting were held in the autumn of that year. It is not believed that many birds were shot.

A nest with fifteen eggs was found in a wet situation among small cedars at Nancy Lake Farm on May 14, 1933.

Rallus limicola limicola. VIRGINIA RAIL.—As might be expected, work since 1926 had added materially to our knowledge of the numbers and distribution of this rail. It is not an uncommon breeder in the lower, undrained portion of the Holland Marsh, and also at many of the lakes, ponds, and sloughs throughout the central and southern sections.

A nest with nine eggs was located in dense cattails at Nancy Lake on June 5, 1938, A second, found at a small lake north-west of Kelly Lake on June 8, contained the unusually large clutch of fourteen eggs, two lying on top of the rest. The incubating bird in this case did not skulk but flew direct from the nest with no effort at concealment. An adult with one downy young was seen on July 13, 1938, feeding about a small muddy cattle pond on Concession V, completely devoid of immediate cover, and when disturbed ran off into standing grain.

Porzana carolina. SORA.—This species appears to be somewhat less common than the Virginia Rail, but with similar, general distribution. A definite breeding record can now be made. A nest was found on June 2, 1937, containing seven eggs. It was located among rather scattered cat-tails in a small pond at Mary Lake Farm.

*Coturnicops noveboracensis. YELLOW RAIL.—
First found by Messrs J. L. Baillie, R. J. Rutter, and R. E. Bennett, in the open Holland Marsh on May 25, 1929, at which time a single bird was flushed. The writer heard one at about the same place on May 28, 1937. About dusk on June 28 this locality was visited in company with Mr. D. A. Ross. Two rails were heard giving their characteristic kik-kik, kik-kik-kik, calls. After dark they were repeatedly flushed, often from our very feet, and were observed with the aid of flashlights.

The species has not been noted elsewhere in the township, but may be generally distributed in the Holland Marsh, since several birds have been found below Bradford, on the Simcoe County side of the river, where it breeds (Devitt, 1939.) A male bird from the marsh, taken July 18, 1937, is in the collection of Mr. J. H. Fleming.

It is possible that this species was not present on the undrained Holland River flats in 1926, although a small population could readily escape observation.

*Gallinula chloropus cachinnans. FLORIDA GALLINULE —Neither as abundant nor as well distributed as the Virgina and Sora Rails. Two or three birds were noted at Nancy Lake during June, 1931. A nest with six eggs was found in dense cat-tails at a small pond near Laskay, June 25, 1937. When visited again on July 1, the last egg was just hatching. At Mount Mellick pond at least three adults and twelve young were observed on July 22, 1938. Occasional birds have been seen along the Holland River.

Although some of these situations were visited by the Museum party on one or more occasions in 1926, the species was not observed. Possibly it is erratic in its occurrence.

*Fulica americana americana. AMERICAN COOT.

—Apparently a migrant species which occurs rarely in summer, in fact it is quite uncommon at all seasons. Single birds have been noted at Nancy Lake: June 28, 1930, and June 2, 1937.

*Charadrius semipalmatus. Semipalmated Plover.—During the wet spring of 1936 a low-lying field on the VIth concession road near Nancy Lake Farm, was partly covered with water up to June 10. The temporary ponds proved

attractive during April and May to such species as Holboell's Grebe, Greater Yellow-legs, and Ring-billed Gull. During the last week of May well over a hundred shorebirds were concentrated here, including,—Semipalmated Plover, Killdeer, Black-bellied Plover, Ruddy Turnstone, American Knot, Least Sandpiper, Red-backed Sandpiper and Semipalmated Sandpiper. The "Peeps" were in the majority.

Semipalmated Plover lingered here in small numbers up to June 7. A few were also noted near Nancy Lake on August 10, 1937. While the species appears on the list by virtue of these summer records, it is, of course, known only as a migrant.

Philohela minor. AMERICAN WOODCOCK.—A species which would appear to have increased in numbers since the Museum survey in 1926. Single Woodcock were flushed near Nancy Lake on August 3, 1934, and June 29, 1936. A nest with four eggs was found, thanks to the writer's dog, which scared off the incubating bird at the margin of an alder swamp and an overgrown weedy field at Nancy Lake on April 25, 1937. During the 1937 survey, individuals were found in seven localities (Mayall 1938); Mr. D. A. Ross found three abandoned eggs in a nest at Pottageville on June 11. Baillie and Harrington (1936) record the banding of three young at Pottageville by C. H. D. Clarke.

Capella delicata. WILSON'S SNIPE.—A single bird was seen at Nancy Lake Farm on July 18, 1936. A few were found during July and August, 1937, in the undrained Holland Marsh, by Mr. D. A. Ross and the writer. None was noted in the drained area, where occasional birds had been previously observed (Snyder, 1930) before drainage took place. Migrants appear through the township in early August and as many as fifteen were found in a damp field near Nancy Lake on August 20, 1937.

As with most of the shore birds, their appearance or non-appearance during migration depends to a large extent on the nature of the season. After a dry summer few are noted. The same is true to some degree of the ducks.

*Bartramia longicauda UPLAND PLOVER.— The only record is that of a pair observed in the drained marsh on June 12, 1937.

*Totanus melanoleucus. GREATER YELLOW-LEGS.—An individual was noted at Mount Mellick pond on July 31, 1937. This species, like the more common Lesser Yellow-legs and Solitary Sandpiper, is to be seen occasionally during July and August.

*Ereunetes pusillus. SEMIPALMATED SAND-PIPER.—This was the only other species of shore bird, at the temporary ponds in 1936 (see under Semipalmated Plover), which remained after the end of May. A few were still to be found on June 8; five or six were noted in a field near Laskay on June 10, 1937.

*Larus delawarensis. RING-BILLED GULL.— Occasional transient birds have been observed in early August at the lower Holland Marsh and at Nancy Lake Farm.

*Hydroprogne caspia imperator. Caspian Tern,
—The only record of this species concerns a
bird seen flying over Nancy Lake on July 18,
1938, by Messrs. Fred Barratt and Frank Cook.

*Childonias nigra surinamensis. Black tern. -One was observed at the old Holland River, in the drained marsh on June 25, 1937. Later, the same year, Mr. D. A. Ross and the writer found a colony of at least fifty pairs in the undrained marsh below Bradford. On July 7, a few immature birds were seen on the wing and adults were carrying food. A search for nests proved unsuccessful. An adult was seen feeding an immature bird, fully grown, at a pond west of Aurora on July 28. They had probably commenced migration. During a visit to the marsh on August 2, not a single tern was seen. Mr. D. A. Ross found a pair during the same summer at Thompson Lake in the south-east corner of King Township.

On June 9, 1938, a visit to the lower marsh with Mr. W. V. Crich, resulted in the discovery of three nests containing three, three, and one egg respectively. Mr. Crich found a nest with two young on June 18. The nests were all located well back from the river on fairly firm open marsh, amidst short, rather sparse, vegetation. By July 22, all the terns had apparently left this area.

*Ectopistes migratorius. PASSENGER PIGEON.— This extinct species is included for the sake of completeness; Mitchell (1935) gives details of their former occurrence in the township.

Coccyzus americanus americanus. YELLOW-BILLED CUCKOO.—On June 17, 1929, a nest of this cuckoo was found eight feet up in alders overhanging the margin of Nancy Lake. At least one egg was in the almost inaccessible nest. On June 29 one or more young were hatched. This is an uncommon summer resident and has not been observed every year. Snyder (1930) gives one record.

Asio wilsonianus. Long-eared Owl.—Two additional records of this species are known. Three were seen about dark, on July 9, 1938, in the tamarack-spruce bush along the drainage canal, by Mr. O. E. Devitt and the writer. Two of these had the appearance of being immature

birds. One was heard on the evening of July 6, 1932, by C. H. D. Clarke at Pottageville and he reports one, possibly the same individual, seen in the early evening of July 10 and heard hooting.

Antrostomus vociferus vociferus. EASTERN WHIP-POOR-WILL.—Appears to have become less common in recent years. The Museum's survey in 1926 recorded the species as fairly common and breeding. During a week spent at Kettleby Kabin in late June, 1937, none was heard, not have they been noted here on various overnight visits in the past few years. At Nancy Lake Farm the only summer record is that of one heard on June 19, 1936.

Chordeiles minor minor. EASTERN NIGHTHAWK.

—This species, in common with the Whip-poorwill, has become much less common during the summer months.

During the summers of 1929 to 1931, inclusive, a few were noted at Nancy Lake Farm. In 1932, practically none were seen. In subsequent years not one has been observed during the breeding season. The species appears in small numbers in August, usually, but occasionally they are not noted until early September.

Archilochus colubris. Ruby-throated Hum-Mingbird.—Breeding records may now be given for this species, whose occurrence status does not appear to have changed since 1926. Mr. D. A. Ross showed the writer three nests in the summer of 1937, two at Nancy Lake and one near Laskay. All were situated in beeches at elevations of from twenty-five to thirty-five feet. Young birds were observed in one nest on July 18.

*Ceophloeus pileatus abieticola. Northern Pileated Woodpecker.—The reappearance in the township of this interesting species, (not present in 1926), in the fall of 1932, has already been recorded. (Ussher, 1936). It has now become well established, and is present in small numbers in many of the larger wooded areas. Mr. Archie Gillies, a former resident, informed the writer in 1938, that he remembered seeing these birds in the vicinity of Kelly and Nancy Lakes, "forty years ago".

The first nest recorded for the Toronto region was found at Pottageville in 1935 (Ussher, 1937) A second was located near Nancy Lake Farm in April of 1937. The cavity was some forty feet up in the top of a large dead hemlock stub. Young were first heard on May 28 by Mr. O. E. Devitt. They left the nest about June 15.

Empidonax flaviventris. YELLOW-BELLIED FLY-CATCHER.—An example of this species, presumably a migrant, was noticed at Nancy Lake on

June 1, 1929. Returning birds have been recorded as early as August 2 (1936) and August 5 (1930).

Empidonax minimus. LEAST FLYCATCHER.—The Museum's party found this flycatcher established as a rather uncommon breeding bird in 1926. It appears to be less common in summer during recent years. The writer has only one summer record, at Nancy Lake on June 4, 1937. Several trips through apparently suitable habitat in the Holland swamp, during 1937, failed to produce any birds.

Nuttailornis mesoleucus. OLIVE-SIDED FLY-CATCHER.—The exact status of this species is still uncertain; two July records in 1926 led Snyder (1930) to suggest "that the species may be other than a migrant in the township". It is possible that the species may yet prove to be a rare breeder in the Holland swamp where a bird was seen on July 31, 1937. An individual was noted at Nancy Lake as late as June 28 in 1935.

Otocoris alpestris praticola. PRAIRIE HORNED LARK.—This is a moderately common breeder throughout the farming areas. The single record of a lone bird in the summer of 1926 (Snyder, 1930) suggests that the species was less common then than now.

A nest at Nancy Lake Farm, found on June 20, 1938, was of rather unusual interest; it was situated in a field of potatoes, well sunk into the ground in the shade of a potato plant. The two eggs were lying on top of a small toad, which completely filled the bottom of the nest. The next morning there were three eggs, but no toad. It is remarkable that the intruder got into and out of the nest without breaking the eggs.

Petrochelidon albifrons. CLIFF SWALLOW.—Snyder (1930) mentions one record for late August. This swallow is still of very rare occurrence during the summer months. It has been noted at Nancy Lake Farm only twice in June and once in July. It usually appears in small numbers in early August. The only indication that it may breed, was the actions of a pair seen on June 29, 1934, at Nancy Lake. They were apparently looking for a nesting site under the eaves of a barn.

Sitta canadensis. Red-breasted Nuthatch.— The finding of scattered individuals in the Holland swanp during 1926, was one of the surprises of the Museum's survey. The species may be of regular occurrence there, as one or two were noted on two occasions in the summer of 1937.

In 1938, following an unusually heavy winter population in the immediate area, at least one pair bred at Nancy Lake,—the first nest to be reported for the Toronto region. It was located about thirty-five feet up in a small dead black ash. When found on April 26, it was under construction and contained young birds on May 22; on this date the male took food to the female in the cavity. The entrance to this was smeared with pitch, and on June 19 a bird was observed apparently gathering this material from a green cone of white pine.

Telmatodytes palustris dissaeptus. Prairie Marsh Wren.—As was found by the Museum's survey, this wren is quite common along the Holland River. This is especially so for the section below Bradford, where they are established where cat-tails are present. A nest with three eggs, found on June 11, 1937, was located in reed grass instead of the almost universally favoured cat-tail. A new breeding station with only a few pairs was found at Mary Lake, where a newly completed nest was observed on June 3. The species was also present along a marshy creek near Pottageville.

SHORT-BILLED MARSH Cistothorus stellaris. WREN.—Several breeding records have been established since 1926, and a few new stations, other than those previously recorded (Snyder, 1930). A nest found in the Holland Marsh by Mr. D. A. Ross on June 25, 1937, contained the usual complement of five eggs. The young left on July 18, on which date Mr. F. A. Barratt collected a set of five eggs nearby (now in the R.O.M.Z., Baillie and Harrington, 1937). This wren was also found breeding at a marshy creek near Pottageville where young on the wing were observed on July 31, 1937. Other stations occupied in that year were at Hall's Lake, King Creek, and Mary Lake Farm. The species is probably erratic from year to year.

Toxostoma rufum. Brown Thrasher.—This bird is still unusually rare in the township. The only breeding record to date is a nest four eggs, found on the ground in a bushy fence line at Nancy Lake Farm, by Mrs. H. M. Halliday, on June 2, 1935.

Hylocichla mustelina. Wood Thrush.—A moderately common breeder but of rather irregular distribution It is present in damp woods bordering the upper Humber River, near Laskay and also on parts of the central ridge These are new stations, previously unrecorded. A nest in a small hemlock, under hardwoods on the ridge, contained four eggs which hatched on June 22, 1937; the same pair (judging by the location) had a second set of there eggs on July 27.

Regulus satrapa satrapa. EASTERN GOLDEN-CROWNED KINGLET.—The first nest for the Toronto region was discovered in the Holland swamp on June 12, 1937. It was situated in a clump of black spruce and contained five small young birds. The species was observed in similar habitat during 1938. A dense stand of cedar and balsam fir bordering a spring creek, in the south part of Concession X, was also inhabited by at least one pair in 1937.

*Corthylio calendula calendula EASTERN RUBY-CROWNED KINGLET.—A singing male was noted on June 10 and 18, 1939, in a spruce-tamarac bog on the south side of the Holland River marsh between the VIth and VIIth Concessions by Mr. Baillie.

*Vireo flavifrons. YELLOW-THROATED VIREO.—A rare summer bird, probably of irregular occurrence. A singing male was noted at Nancy Lake on June 20 to 28, 1931; another was seen here on August 21, 1932. These appear to be the only summer records.

*Vireo gilvus gilvus. EASTERN WARBLING VIREO.—The only known station is the village of King City, where a few pairs are regular summer residents

*Vermivora chrysoptera Golden-Winged War-Bler.—The species has been recorded once in mid-August from Nancy Lake Farm (Ussher, 1931). In 1937, Mr. D. A. Ross noted a male bird in a cut-over part of the central ridge, between May 30 and June 21.

Vermivora ruficapilla ruficapilla. NASHVILLE WARBLER.—This warbler appears to be mainly confined to the Holland swamp where it was found breeding in 1926. South of the ridge, at Nancy Lake, it is present only during migration.

*Dendroica magnolia. MAGNOLIA WARBLER.—A male bird was seen by Mr. D. A. Ross on the main ridge on June 10, 1937. In the tamarack-black spruce stands of the Holland swamp, a singing male was noted several times in June of that year. In 1938 several birds, all males in song, were observed in this habitat and on June 10 and 18, 1939, Mr. Baillie again noted the presence of a singing male in the bog which harboured the Ruby-crowned Kinglet.

*Dendroica caerulescens caerulescens. BLACK-THROATED BLUE WARBLER.—A lone singing male was present in the woods around Nancy Lake throughout the summer of 1938. Judging by its wide wanderings, the bird was an unmated individual.

Dendroica coronata. MYRTLE WARBLER.—Additional records of this species are as follows: An individual seen at Nancy Lake Farm on August 4, 1933, and a female at the same place on

July 17, 1934. A singing male was observed in the tamarack-black spruce stands of the swamp on June 28, 1937.

Dendroica cerulea. CERULEAN WARBLER.—A record in addition to the specimen collected by the Museum's party in 1926, is that of a singing male observed in the tops of large elms south of Nancy Lake Farm, on June 23, 1927.

Dendrocica fusca. Blackburnian Warbler.—Breeding records for this warbler are now established from two localities. A young bird, being fed by adults, was watched at Nancy Lake on August 18, 1929; young have also been noted here, in 1931, and 1934 (Ussher, 1936). Mr. D. A. Ross, on June 15, 1937, saw a nest in a hemlock near Laskay. This is apparently the first to be recorded for the Toronto region.

*Dendroica castanea. BAY-BREASTED WARBLER.

—One occurrence of early fall migrants was noted at Nancy Lake, on August 18, 1929. The species does not usually appear before September.

*Dendroica pinus pinus. Northern Pine Warbler.—The species is present, in small numbers, in a few localities where white pine occurs in nearly pure stands. It has been recorded as breeding in 1934 at Nancy Lake Farm (Ussher, 1936). A male bird in the same woods was watched while attending a two-thirds grown young, on July 7, 1938.

Seiurus noveboracensis noveboracensis. NORTHERN WATER-THRUSH.—Snyder (1930), records the first breeding evidence for the Toronto region, when young birds were taken in the Holland swamp. Subsequently Mr. H. H. Southam found a nest with four eggs at Pottageville, on May 24, 1935. Nests have also been found at Nancy Lake and the species is quite common at most of the lakes, and in low-lying woods.

*Oporornis agilis. Connecticut Warbler.— The only summer record is that of a bird, undoubtedly a migrant, observed at Nancy Lake on August 21, 1935.

Oporornis philadelphia. Mourning Warbler.—Mr. D. A. Ross showed the writer a nest with four eggs, at Nancy Lake on June 19, 1937. It was located about six inches off the ground, in the base of a fern clump, growing under hemlock. This inhabitant of cut-over areas and forest openings may be somewhat more common now, than in 1926.

Wilsonia pusilla pusilla. WILSON'S WARBLER.

—Returning migrants appear regularly during the last week in August and have been noted at Nancy Lake as early as August 17, 1937.

Agelaius phoeniceus phoeniceus. EASTERN RED-WING.—No colonies of this species have yet been established outside of the usual cattail habitat (Snyder, 1930). Individual nestings

which vary from this rule are, however, noted occasionally. Two nests found in the undrained marsh, on June 9, 1938, were in short grassy habitat, being placed only six and eight inches up respectively. About the lakes and sloughs, nests are not infrequently placed in alder, willow, red-osier dogwood, and cassandra. The highest location noted was seven feet up in small willows.

Piranga erythromelas. SCARLET TANAGER.—
This species is not uncommon in the dry woodlands along the ridge, where it was noted in 1926. Hemlocks appear to be favoured as nesting sites; three nests located by Mr. D. A. Ross and the writer, in the area north of Kelly Lake, in 1937, were in these trees. A fourth was placed in a maple sapling. The first of these, contained four eggs on June 10.

Spinus pinus pinus. Northern Pine Siskin—The nest recorded by Snyder (1930) remains the only breeding evidence for this species. It has not been unusual to find small flocks of Siskins, well into the latter half of May, six weeks or more later than the nest referred to. The only summer record is of a bird seen flying over Nancy Lake on July 23, 1933.

*Ammodramus savannarum australis. EASTERN GRASSHOPPER SPARROW.—Two were noted near Pottageville on June 15, 1925, by Messrs. R. V. Lindsay and C. D. Richards. A singing male was located in a clover field at Nancy Lake Farm during the last week of July and the first week of August, in 1934.

*Passerherbulus caudacutus. Leconte's Spar-ROW.—A colony of these elusive birds was found at the Holland Marsh, in late June 1937. They were located in fairly open habitat towards the centre of the marsh. The birds could be detected to the best advantage after dark, when, from one spot, as many as four or five could be heard. They may be generally distributed in this type of habitat, as a few were discovered, though only on the Simcoe County side, in the undrained part of the marsh, north-east of Bradford (Devitt, 1938). This sparrow was established as a breeding bird on July 23, 1938, when Mr. O. E. Devitt took a young bird, just out of the nest and barely able to fly. This is the first evidence that the species breeds in the Toronto region, It seems probable that it has come in quite recently.

*Passerherbulus henslowi henslowi. WESTERN HENSLOW'S SPARROW.—This species was first noted in the township by Mr. S. L. Thompson who heard one in a small marsh near Kettleby on July 11, 1936. In 1937 they were found in small numbers associated with Leconte's Sparrows in the Holland Marsh. One was also noted on

June 25, 1937, in another part of the marsh. The advent of this species since 1926 may be associated with the altered drainage.

Junco hyemalis hyemalis. SLATE-COLORED JUNCO.—This species is usually found on the dry ridges as noted by Snyder (1930); occasionally they are seen elsewhere in summer. Breeding evidence can now be added. A family of nearly fully grown young was observed being fed by adults, in a white pine stand, at Nancy Lake Farm on July 17, 1934. An uncompleted nest was found by a creek, in the same area, on May 8, 1935.

AMPHIBIANS AND REPTILES.

*Rana catesbeiana. Bullfrog.—This is the only amphibian which can be added to the list recorded by Logier (1930). Many young bullfrogs were noted on August 22, 1928, at Thompson Lake in Concession X, by Messrs J. L. Baillie, and W. J. LeRay. One adult was seen at the same place. Specimens of this frog were examined at Nancy Lake by Mr. D. A. Ross and the writer in June, 1937.

Rana palustris. PICKEREL FROG.—A second station for this species is at Nancy Lake Farm. Six specimens were collected from a vat of flowing spring water in a milk house on December 27, 1938, by Miss Rosemary Martin, Department of Biology, University of Toronto. They had first been noticed in the vat during late November.

*Diadophis punctatus. RING-NECKED SNAKE.—A specimen of this small reptile was captured by Mr. W. J. LeRay in June of 1935, the initial record for the township. The snake was discovered in a pile of partially decayed bark on the VIIth concession just east of Kelly Lake.

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REVIEW

CONTRIBUTIONS OF THE ROYAL ONTARIO MUSEUM OF ZOOLOGY, No. 14. A Faunal Investigation of Western Rainy River District, Ontario By L. L. Snyder. Reprinted from Transactions Royal Canadian Institute, Vol. XXII, Part 1, 1938. Published under The Reuben Wells Leonard Bequest. Toronto: 1938. pp 157-213, map 1.

A general Introduction, pages 157-164, gives a description of the area covered by a field party of the Royal Ontario Museum of Zoology between May 31, and August 10, 1929. The area consists of approximately 1400 square miles. It is bounded on the south by Rainy River which constitutes the Minnesota-Ontario International Boundary, on the west by Lake of the Woods, which lies on the Manitoba-Ontario Provincial Boundary, on the east and north by Rainy Lake and the system of lesser lakes which mark the border of exposed pre-Cambrian rock in the region. The trees and shrubs are fairly typical of the eastern section of the Canadian life zone, and the record of vertebrate animals demonstrates also that the composite association of forms in this region is largely characteristic of the Algon quin faunal area of the Canadian life zone. So far as known no comprehensive studies or surveys had been made of the biota of this area. In bird collecting Mr. Snyder was assisted by Mr. James L. Baillie, Jr., while Mr. H. P. Stovell did the major portion of the mammal collecting.

The list of mammals of the district, pages 165-180, is mostly based on series of 25 species collected, but some of the fur-bearers and larger mammals are included on other evidence, raising the total number of species to 44. Owing to the inadequacy of local collections of mammals from, other large areas in the Province of Ontario which would be necessary in making a satisfactory critical determination of subspecific char-

acters, the author has found it inadvisable to give more than names of species. However, in many instances he has given interesting and pertinent notes on differentiating characters which give the reader a chance to form his own opinion on some moot questions, and may possibly weaken his acceptance of certain presumptions on range of subspecies which at the present time rest on inference rather than fact. That is to say, that in the range of a number of species there is a wide no-man's-land between the records of eastern and western, or northern and southern subspecies, where there are few if any authentic specimens available to mark the line of separation Other difficulties in separating subspecies may be due to having to compare specimens which are taken at different seasons.

The reviewer deprecates the lumping of measurements of series of mammals as "adults" without giving sex. We know that there are usually considerable differences between sexes of Ungulates, as well as in Carnivores (particularly in *Mustelidae*, weasels, etc.), and the best modern practice is to give averages (preferably with maximum and minimum measurements) of a series of males and females separately, leaving out specimens which are evidently juvenile or subadult.

The author states that "There is no doubt that the fauna of the Rainy River District is the richest and most varied of any area visited so far during the prosecution of the Museum's surveys." A series of Franklin's Ground Squirrel, Citellus franklinii, was collected near the town of Rainy River, constituting the first collection of the species in the province of Ontario. Information was also obtained to the effect that the White-tailed Jack Rabbit, Lepus townsendii, is found on Sable Island, off the mouth of Rainy River, but no specimens were taken by the party. Taken altogether this report is a valuable addition to the list of faunal papers of Canada.—R.M.A.



Ussher, R. D. 1939. "Additional Notes on the Fauna of King Township, York County, Ontario." *The Canadian field-naturalist* 53(7), 101–110. https://doi.org/10.5962/p.340159.

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