# BIRDS OBSERVED IN SASKATCHEWAN DURING THE SUMMER OF 1909.

BY JOHN F. FERRY.

### Plates X-XII.

THE following notes were made at two principal points in Saskatchewan, Prince Albert and Quill Lake, from May 20 to August 11, with an interruption from July 16 to 30.

The time spent at Prince Albert extended from May 26 to June 7; at Quill Lake, from June 9 to August 11, with the interruption from July 16 to 30 as above noted. Scattering observations were made at other localities as subsequently noted.

Prince Albert is slightly south of the center of the Province of Saskatchewan, while Quill Lake is 98 miles to the southeastward on the Canadian Northern Railroad.

Prince Albert, except near the Saskatchewan River, is situated in a slightly rolling semi-prairie country, containing many ponds and sloughs, and scattered thickets of poplar abound. It is a picturesque region and is througed with breeding ducks. An interesting muskeg country lies to the south, but unfortunately we were not able to visit it. We located at a comfortable farm house about eight miles southeast of the town.

Quill Lake is surrounded by unbroken prairie. Poplar thickets or "bluffs" as they are locally termed, are a characteristic feature of the landscape. Toward the southern end of the lake they almost entirely disappear, while around the northern edge, they run together to such an extent that the term continuous woodland might be used to describe a large portion of the area they cover. Quill Lake actually consists of three portions, locally known as Big Quill, Middle Quill, and Little Quill. Big Quill is about eighteen miles long and five to thirteen miles wide; Middle Quill is four miles long by two wide; while Little Quill is fifteen miles long by seven wide. The northern and eastern sides of Big Quill are very shallow and the bottom is muddy. Boating is impossible in such places, and the investigator must rely on his waders. Big Quill is dotted

with many islands, mostly near shore, and this is true to a lesser extent of the other lakes. Most of the islands are low mud flats with scanty vegetation. Muddy bottoms usually surround them for a long distance. Much of the shore line, however, is gravelly and sandy, and occasional large boulders attest the glacial formation of the country. The waters of the lakes are strongly alkaline. Along the southeastern side of Big Quill, the country is broken by ravines leading to the lake. They usually drain adjacent ponds, which are favorite nesting grounds for ducks.

The Field Museum of Natural History of Chicago carried on field work in the above region during the time stated, but others joined the party from time to time. Chief of these was Mr. R. M. Barnes of Lacon, Ills., who came to make acquisitions to his fine collection of North American birds eggs. Besides being successful himself, he gave much assistance to his associates. Mr. F. F. Ferry joined the party on July 1, entering into the arduous routine of field-work enthusiastically, and in this manner spending his vacation. L. L. Pray of the Museum staff worked in the capacity of artist and taxidermist during the latter part of the field operations. John S. Charleson of Shoal Lake, Manitoba, an able taxidermist and collector, was employed for the work at Prince Albert. Recognition is also due Herbert C. Clark of Quill Lake, who acted as teamster, guide and general helper in a most efficient manner.

The following list is far from complete, as scientific investigation was not the main object of this work. Mr. Barnes took full notes and shot the parent bird for identification in most cases when he took a set of eggs. Excerpts from these notes are included herein and credited to Mr. Barnes.

## List of Species.

1. **Æchmophorus occidentalis.** Western Grebe.— This species was first seen in Little Quill on July 3. Several adults were met July 4 with their broods, usually three in number. The young were still in the down, and could not have been more than a few days old. They uttered a soft, whistling peep, when the parent bird left them to seek her own safety. On June 10 two nests of a large Grebe, each containing three eggs, were found. They probably belonged to the Western Grebe. These nests were destroyed later by a heavy gale on the lake.

- 2. Colymbus auritus. Horned Grebe.— This species was abundant in the vicinity of Prince Albert. Its nests were frequently found. At Quill Lake it was much rarer, probably due to the fact that rushes and other high aquatic vegetation does not grow in any abundance about the Quill Lakes owing to the alkaline waters. A careful investigation of neighboring sloughs and ponds might show the bird much commoner than we found it. Dates of nests: May 30–31, fresh egg; June 1–5, fresh eggs; June 5–9, fresh eggs.
- 3. Podilymbus podiceps. Pied-billed Grebe.—Several seen at Prince Albert. One female was found dead on a nest containing two fresh eggs. Not positively identified at Quill Lake.
- 4. Gavia immer. Loon.—A fine pair of Loons was taken at Shoal Lake, Manitoba, on May 20. A single bird was seen on Big Quill on July 5.
- 5. Larus delawarensis. RING-BILLED GULL.—"This species we found abundant at Big Quill Lake, where two nests were found with fresh eggs, June 11, on an island well out in the lake. It nests in colonies on the small, flat, sandy, grass-covered islands lying near the lake shore. June 16, two such islands were visited, the first of which lay about three hundred yards off shore, about a mile from the creek connecting Big Quill with Middle Quill Lake. This island was somewhat crescent-shaped, nearly 100 yards long, and 20 yards wide at the widest part. It was a mere sand strip, and had grass grown over the middle of the widest part of the island. Here, usually in the grass, but some out on the open sand, were 157 nests of this species all containing eggs, mostly just on the point of hatching. One hundred and seventeen nests had three, twenty-two nests had two, eleven nests had one, six nests had four, and one nest had five eggs.

"A visit to this island a few days later found it literally overrun with young gulls. The nests in most cases were piles a few inches high of floating water-weed, found in the lake. Frequently they were quite well made, with a rude cup-shaped top, and sometimes were a depression tramped down in the grass, lined with a few of the same weeds, and sometimes only a slight depression scratched in the sand, around which a few of the weeds had been gathered.

"The old birds were very fearless in defense of their young and eggs, swooping and screaming around in close proximity to one's head, and, owing to the very large number of them, keeping up a deafening din.

"Within 500 feet of the above island, and slightly nearer shore, lay another triangular-shaped island, similar, but about 400 feet by 200 feet, slightly higher and having two separate grass plots, and a large patch of wild nettles upon it. Here we found a motley assembly of water birds breeding. The Ring-billed Gull predominated with 158 nests. They surrounded entirely a rookery of fifty-two nests of the Double-crested Cormorant, whose nests the gulls robbed daily to such an extent that but one cormorant egg was secured by us here. The nests and the ground adjacent were strewn with the shells of cormorant eggs. In another part of this island was a Common Tern colony occupying a narrow strip of grass-

covered sand apart from the main colony of gulls. We saw no signs of the gulls having molested the terns.

"The following duck's nests were found upon this island: Pintail, two nests; one each of Blue-winged Teal, Baldpate, Canvas-back, and two of the Lesser Scaup Duck. Five of these nests were destroyed by the gulls. There was also a Canada Goose nest at the edge of the gull colony. Two gulls had built their nests upon its very edge. The goose nest contained six eggs on the point of hatching.

"When I lay quietly for a few moments during a shower, the gulls would settle all around me on their eggs to protect them from the rain. Some sat within twenty feet of me, apparently unconcerned, eveing me curiously Suddenly they all would spring into the air almost simultaneously and renew their screeching and swooping at me, and so far as I could see, without cause. I had not moved a muscle. I noticed these flights into the air usually occurred during a lull in the storm, when the rain was not falling so heavily. The young are pretty little creatures with thick, soft downy bodies, and legs far back. They run about as soon as dry from the egg shell, and hide in the grass or toddle over the beach in a ludicrous fashion. Their bills and feet are a beautiful delicate pink; eyes black, and their downy coat appears of two different shades, a gravish and a brownish color. Why this difference in color we could not determine, as young of both colors were found in the same nest. At other times all three young in a nest would be of the same color. The little fellows were fearless swimmers and would boldly strike out in the rough sea of the lake. They were more or less speckled with small, brownish black round spots." (Barnes.)

- 6. Larus franklini. Franklin's Gull.—This species was observed flying overhead at Prince Albert and was abundant during our stay at Quill Lake. They were often observed flying low over the prairies catching insects. An examination of three stomachs resulted as follows:
- No. 1. Mass of digested matter among which was found remains of numerous midges (very little gravel).
- No. 2. Mass of more or less well digested Acrididæ; also twelve Acrididæ but little digested, as were also one spider, one small mole cricket, one dragon-fly and immature Acrids and one nearly perfect water beetle.
- No. 3. A moderate quantity of well-digested food which seemed made up of particles of Acrididæ, and of which eighteen are still recognizable.
- No. 4. Very little well digested food; four large dragon-flies and six Acrididæ. (Above determinations by Walcott.)

Though the birds were so common, we could not locate their nesting site. However, Mr. Barnes's notes read as follows: "On the island containing the Ring-billed Gull colony visited June 16, I found a gull's nest among the Ring-billed Gulls' nests, but smaller. This nest contained three fresh eggs about two-thirds the size of the Ring-billed Gull's eggs. They are not like Ring-billed Gull eggs. Franklin's Gull was the only other gull about Quill Lake. I am convinced that these eggs belong to this species."

A great flock of Franklin's Gulls was observed on a strip of land between Middle and Little Quill Lakes on July 4.

7. **Sterna hirundo.** Common Tern.— These birds were abundant breeders about Quill Lake. Many nesting colonies were found on islands in the lake. "The nests were nearly all on the grass-covered parts of these islands, though some were located out in the sand or gravel. They were usually only a slight pile of grass-like weed found growing in the lake, sometimes but a mere depression made in the grass or sand. Once in a while there was quite a pretentious effort at nest-building out of this same weed, with a well-defined cup to hold the eggs. There were ninety-eight nests in a colony visited June 11. The eggs numbered two and three in a nest in about the proportion of two nests with two to three nests with three. One nest on this island contained four eggs. They all were about one-half incubated. One sky-blue egg was found.

"While visiting this colony at a later day, a heavy protracted rain occurred. Nearly all the terns returned to their eggs, though the writer lay on the ground within twenty-five feet of the nearest of them. It was a matter of interest to note their manner of alighting on the nest. They approached it with the usual airy tern-like flight, hovering some twenty feet above for a moment or two. With a sudden downward plunge, they stopped a foot or so above the eggs, fluttering for an instant. Finally they settled gracefully upon the nest, each bird facing the storm." (Barnes.)

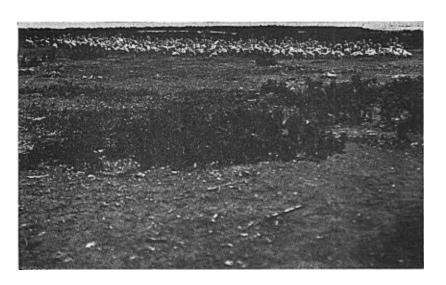
On June 14, another colony on an island was visited. There were 147 nests, about four-fifths of which contained three eggs each. One June 16 another colony containing thirty-eight nests was found, and subsequently four other colonies were discovered. Nests containing highly incubated eggs were found on July 4, and many young had been killed by heavy rains. Among these gull and tern colonies, it was the rule to find several duck nests, and frequently one of the Canada Goose.

- 8. Hydrochelidon nigra surinamensis. Black Tern.— These birds were only occasionally seen at Quill Lake, passing over in twos and threes. On June 29, a flock of fifteen or twenty was seen hovering about the mouth of Pill Creek, a small stream entering Big Quill at its northwest end. Five days of almost continuous rain had preceded, and we inferred that the terns' nesting site in some other locality had been destroyed.
- 9. **Phalacrocorax auritus.** Double-crested Cormorant.— These birds were common at Quill Lake, but very wary. A nesting site of these birds was found in a colony of Ring-billed Gulls, as previously referred to. As the gulls destroyed the eggs of the cormorants in this case, it seemed improbable that the cormorants had made no effort to nest elsewhere. The location of another such site was long a mystery, and was only cleared up on July 5, when we found some fifty nests of the cormorant on a rocky island near the southern end of Big Quill. Nearby were broken eggs and recently abandoned nests of the White Pelican. The cormorant nests contained mostly three eggs each; a few were fresh, but the greater part highly incubated. There were a few nests containing young recently

hatched, and others with young a few days old. This colony, however, was insignificant when compared with one we found on July 9, about one and a half miles from the former. It was on an island chosen by the White Pelicans for their breeding ground. Here were between 200 and 300 young cormorants in the down, averaging about one third grown; though there were some young but a few days old, and others about one-half grown. Some nests contained highly incubated and addled eggs. The nests were scattered about on the island in groups, numbering from twelve to thirty-five or forty nests. The young when able to hobble away from their own nests would gather in little companies nearby. A neighboring nest was usually occupied by as many birds as it would hold, the others huddling together around it. The young birds uttered a note like a crying baby, but shriller and harsher. They showed no fear of man, and while one observer was preparing his camera, one young bird pecked at his coat sleeve, mistaking the man for his parent. The young appeared to be fed upon minnows, which they would sometimes disgorge in a semi-digested state when alarmed. The parent birds left long before our canoe reached the island and did not return. Occasionally, however, solitary birds would fly by overhead. The nests of the cormorants were made of sticks and dry weed stalks, woven together with varying degrees of skill; sometimes the nest was almost as well built as that of a Red-tailed Hawk; at others it had fallen apart before the eggs were hatched.

The adult birds were not often seen in the fully adult plumage. Usually there was a considerable intermixing of white. None of the adults shot had the long crests behind each eye.

Pelecanus erythrorhynchos. White Pelican.— The most notable discovery of our trip was a nesting colony of this species. From our arrival we had hunted continually for the birds' breeding grounds, for they were abundant about the lakes. The nesting site was at last found, July 10, on an island at the extreme southern end of the lake. As we approached the island from a distance, an impressive sight was presented to us. A great bank of snow seemed to be looming above the water. When we were about five hundred yards distant, the birds began to take wing, executing that stately flight for which they are noted. Soon the space above the island was filled with several hundred great white birds, while in every direction small flocks were flying away in single file. This was a striking enough spectacle, but a still more interesting sight was the hundreds of white downy young that gathered together in several great herds about the island. Sprinkled among them were little groups of young cormorants. When the young pelicans were approached they uttered a groaning, grunting noise and herded together in the most ludicrous confusion. Scrambling and stumbling, they slowly moved away from the intruder, bearing all before them — patches of rank weeds, cormorant nests and the helpless young of both pelicans and cormorants. Sometimes they disgorged the contents of their pouches, usually a mass of salamanders (Necturus maculatus), though occasionally a "jock-fish"





Young White Pelicans. Quill Lake, Saskatchewan.

(one of them was about a foot long) and some brook sticklebacks (*Eucolia inconstans*). A number of pelican eggs lay strewn about, and occasionally a nest contained two or three addled eggs. Even while we looked on, some Ring-billed Gulls attacked these eggs, breaking them sufficiently to let out the contents.

The nests of the pelicans were low mounds of sand, mixed with gravel and mud. The dimensions of two nests, in inches, were as follows:

Diam. at base.	Diam. at top.	Height outside.	Inside depth.
24	12	$2\frac{1}{2}$	2 (about)
20	9	3	24

Usually there was some loose aquatic weed lying about the rim of the nest. The nests were frequently placed side by side, but sometimes three or more feet apart. They were in groups of from twelve to twenty. Often a single cormorant nest was placed among those of the pelicans.

One pelican nest contained a young bird just hatched, and two eggs. The young bird, which made a noise like a young puppy, was of an orange flesh color. The young, when about the size of a hen, have the eyes slaty brown, bills light bluish gray, feet livid flesh color. The iris of the adult is a light bluish gray. Inside the pouches of both old and young birds were clusters of parasites — beetle-like insects with bodies striped with black and white.

The young pelicans when acting in concert made a noise like the distant honking of Canada Geese.

This colony was under observation from July 10 to 13, when the above notes were taken. Later it was visited daily from August 1 to 8. During the interval of our absence, the appearance of the island had greatly changed. The young of both cormorants and pelicans had left the nests and were able to leave the island by swimming. In one or two great bodies, they would swim out from shore, and remain a distance from the shore while we were on the island. Their location would vary according to the amount of moving about we did while on the island. When we remained in one spot the flocks of young birds would slowly move towards the island and eventually gather in a compact body on the shore. While we were moving about photographing or collecting material, the flock would remain strung out about one hundred and fifty yards or more from The old birds would gather about a quarter of a mile distant on the shore of the mainland, or in a long line would remain at rest upon the water, three to four hundred yards away. They made a beautiful sight, looking like a fleet of white battle-ships. The spectacle which eclipsed all others in interest was when the young and old gathered upon the Then took place all the varied events of their unmolested domestic When the observer lay concealed in high rank weeds, the young birds would soon return, and the old birds in the course of an hour. The adults would alight among the young with a swish or swoop, and usually would single out their own young and begin feeding it. The process was very grotesque. The old bird would lower its head, open wide its bill,

and immediately the head and neck of the young would disappear into the parent's capacious pouch and gullet. With such energy would the young bird do its work that the parent was sometimes almost pushed off its feet. Often the two birds would struggle back and forth in a manner suggestive of a strenuous contest. The young birds, after being fed, would settle down and apparently go to sleep. The old birds would stand about preening, gaping, occasionally charging at an old or young bird which they regarded as an intruder.

Few of the old birds still retained the odd excrescence on the bill at the time of our first visit, and during our second visit, a bird thus ornamented was seldom seen. None of the adult birds we took had any pink lustre to the plumage, except sometimes at the tip of the tail, on its under side. The full-grown birds varied considerably in size.

The feeding grounds of the adults was a matter of much speculation on our part. The waters of Quill Lake are strongly alkaline, and it is doubtful if any fish live there, except possibly in and at the mouths of creeks entering the lake. Yet fish undoubtedly formed a part of the bird's diet, as we found several disgorged by the young birds, some of considerable size. We suspected that the birds had some distant feeding ground, and color was lent to this theory by the behavior of the birds each evening. Between five and seven flocks of from six to twenty-five individuals flew in a southwest direction over the prairie. This direction would lead them to the region of Lost Mountain Lake, some thirty-six miles distant, and possibly to some intervening lakes and creeks. Our brief and much localized observations could not settle such a matter definitely, however.

The number of the adult or young pelicans could not be told with certainty, but we estimated the number of the young birds to be between 750 and 1000. A photograph of a single group of young shows 250 birds. And this group could not have represented more than one-third of the total number of young. There must have been between 300 and 500 old birds.

The mortality among the young was considerable. Their dead bodies lay strewn about all over the island, which was about an acre in extent and perfectly flat. There were also colonies of the Ring-billed Gull and Common Tern on this island.

- 11. Lophodytes cucullatus. Hooded Merganser.—Three of these birds were seen on Middle Quill on June 23. They alighted close to an island where we lay concealed. One was shot but not recovered. They were all either females or immature males. On July 10, at the southern end of Quill Lake, two broods of four or five were seen. They were about two-thirds the size of the adult.
- 12. Anas platyrhynchos. Mallard.—A common breeder at Prince Albert, and to a less extent at Quill Lake. Near the latter place, it probably would have been found much commoner in neighboring sloughs and ponds. It is locally known as "stock duck." Nests containing fresh eggs were found at Prince Albert on May 29 and June 1. The former contained eight fresh eggs; the latter nine fresh eggs.

- 13. Chaulelasmus streperus. Gadwall.—Common at Prince Albert; abundant at Quill Lake; probably the most abundant duck in the latter vicinity. Many nests were found. They were situated practically always upon islands in the long grass or among the weed stalks growing there. Often the nests were in patches of dead weeds; they were made exclusively of the finer weed stalks and the dead, cottony flowers. Only occasionally were some of the bird's own feathers used. This species often nested in close proximity to nests of the Baldpate and Pintail. The eggs of the Baldpate and Gadwall closely resemble each other. In two cases eggs of the Lesser Scaup Duck were found in Gadwall's nests. This species is a late nester, fresh eggs being first found in complete sets on June 24. A nest with young just pipping the shell was found on July 31. Many broods were seen in sloughs up to August 9. A nest with seven fresh eggs was found on July 4.
- 14. Mareca americana. BALDPATE.— Not common at Prince Albert. Abundant at Quill Lake. In nesting habits much like the Gadwall, though the Baldpate nests earlier. The first complete sets were found on June 12; the number of eggs laid ranged from nine to twelve. On July 5 a brood of three, a little smaller than Teal, were seen in company of the female parent.
- 15. Nettion carolinensis. Green-winged Teal.— Not common at Prince Albert or Quill Lake. A nest containing nine fresh eggs was found at Prince Albert on June 3.
- 16. Querquedula discors. Blue-Winged Teal.— This was one of the most abundant ducks at Prince Albert, but was not nearly so common at Quill Lake. Three nests were found at Prince Albert; May 31, with five fresh eggs, and June 7, are two of the dates.
- At Quill Lake a nest was found on June 16 containing four fresh eggs. Later they were destroyed by the gulls.
- 17. Spatula clypeata. Shoveller.— This duck was abundant all through the portion of Saskatchewan which we travelled. The nests were next to impossible to find and we discovered but one. Mr. Barnes's notes read as follows: "June 20, in the midst of a tremendous rain storm, I stumbled upon a nest of this species built on the ground at the forks of a fallen and nearly limbless tree overgrown with brush. The bird flushed under my feet so close that her wings struck me as she rose. The nest was of grass and contained very little down. The eggs were fresh."
- 18. **Dafila acuta.** PINTAIL.—We were successful in finding many nests of this duck. It was abundant at both localities visited. The birds nest in the long prairie grass, or at the edge of willow thickets, usually close to water. At Quill Lake they showed a decided preference for islands as nesting sites. They are generous in the supply of down used to line their nests. Nests were found at Prince Albert as follows: May 25, three nests; May 26, nine eggs, one-third incubated; May 27, three eggs, one-half incubated; June 1, twelve eggs, two-thirds incubated. At Quill Lake, June 16, nine fresh eggs.

On June 11 flocks of males were frequently seen, only occasionally a female being among them. A brood of eight young, just hatched, was found on June 17.

- 19. **Marila americana**. Red-Head.—"Uncommon. One pair in a slough at Prince Albert where they were undoubtedly nesting on June 6." (Barnes.)
- 20. Marila vallisineria. Canvas-back.—Common in both localities. Two nests at Prince Albert, one on May 30, in base of willow-bush standing in water with seven eggs, one-third incubated; the other in a tussock of dead grass in a small slough with six eggs, one-third incubated, June 5.

At Quill Lake nests were found from June 14 to June 21 with fresh eggs. One nest was in tall bulrushes growing out of a small creek; one in a bunch of dead bulrushes, standing in a very conspicuous position. The third nest was in low grass on a flat, sandy island. Very little down was found in these nests. The birds as a rule appeared tame and flushed almost under one's feet. Flocks of male birds were seen at about the time the females appeared with their broods (July 1). Several broods were seen on June 29.

- 21. Marila affinis. Lesser Scaup.—Common at both localities. A nest containing ten fresh eggs was found at Prince Albert on June 2. It was in long, dry sedge grass at the edge of a pond. At Quill Lake they nested commonly on low flat grassy islands. The Lesser Scaup nests "were the flimsiest in construction of all the ducks' nests found, being uniformly a mere depression in a small bunch of grass, and seldom having much of any down in them" (Barnes). On July 4 the adult birds, mostly males, were seen in an immense flock on the north shore of Middle Quill. Large flocks were seen in various parts of the lake from this time on. On June 29 a brood of this species was seen and several broods of Canvas-back and Widgeon. It appeared to be the date when many ducks brought out their broods. A nest with ten eggs was found on July 4.
- 22. Clangula clangula americana. Golden-eye. Golden-eyes, presumably this species, were seen at Quili Lake on June 7, on July 3 and 4, flocks of ten, three, two, and two Golden-eyes were seen. On July 10, one was seen.
- 23. Charitonetta albeola. Buffle-head.— Small flocks of this species were seen frequently during our stay. They were commonest about the rocky and gravelly shores of Little Quill Lake. The flocks were composed mostly of males. We believed the species to be nesting in the vicinity.
- 24. Oidemia deglandi. White-winged Scoter.—Small flocks seen occasionally; commonest in Little Quill Lake.
- 25. Erismatura jamaicensis. Ruddy Duck.— Plentiful about Prince Albert, where it was either breeding or preparing to breed, as the birds were almost universally in pairs.
- 26. Branta canadensis. Canada Goose.— "This bird we found numerous on Quill Lake. Seven different nests were found on small grassy islands along the north and east shore, each containing from five to seven



1. NEST OF CANADA GOOSE. QUILL LAKE, SASKATCHEWAN.



2. Nest of Mallard. Quill Lake, Saskatchewan.

eggs. All were much incubated, and one set of five eggs hatched June 12. A strange thing was that we saw no young geese except the brood which we found before they had left the nest. Several times large flocks containing from ten to thirty-five birds were seen.

"All of the nests were merely piles of dead grass placed usually near the ends of the islands. On the grass there was a depression in the top lined with down from the goose. One nest was on the very edge of a Ring-billed Gull colony, against the base of which two different gulls had constructed their nests." (Barnes.)

On June 17 a nest was found containing seven eggs. The female flew when Mr. Barnes was about seventy-five yards distant, uttering deep melancholy honks. On hearing them the male goose joined her and together, a short distance out in the lake, they kept up an anxious honking.

A nest was found on July 11 from which the bird was flushed. An odd looking egg was all that was in the nest. It looked like an egg of the Canvas-back, but it may have been a runt goose egg badly nest stained. A set of six highly incubated eggs were given to a farmer to place under a hen. They all hatched. The hen cared for them for about two weeks when a tame goose was substituted. In September a letter informed us that the whole brood was as large as adults and had once taken wing and flown to the lake. They were easily recaptured. On June 16 Canada Geese were seen flying over the lake in groups of two, eight and three; on June 17 flocks of twenty and ten, and several of two and three.

- 27. **Botaurus lentiginosus.** BITTERN.—"But one specimen seen at Quill Lake." (Barnes.) July 5 another was seen on the south shore. The bird was common about Prince Albert.
- 28. **Grus americana.** Whooping Crane.— "June 14 we saw a splendid specimen of this species standing on the wide muddy flat at the north end of Big Quill Lake. We examined it carefully with our glasses, and endeavored to stalk it. This was the only specimen seen. Our assistant, who lives on the shore of the lake, told us he had killed an adult specimen of this species some fifty miles north of Quill Lake during the present spring. His younger brother, a lad of fifteen, told us that a pair of birds had been seen along the east side of Big Quill Lake nearly all the spring." (Barnes.)
- 29. Grus mexicana. Sandhill Crane.— "Not a common bird, though at least one pair nested near Big Quill Lake. A nest was found on June 20 in the swamp where the water was from eight to ten inches deep, and through which had grown large swamp grass to the height of a man's shoulder. Among this a nest was built which appeared very much like the upper third of an ordinary hay cock, with a depression at the top. One egg, apparently about one-third to one-half incubated, with the side torn out (probably by some animal), was found on the edge of the nest. The birds were seen at the time the nest was discovered within a few yards of the nest." (Barnes.)

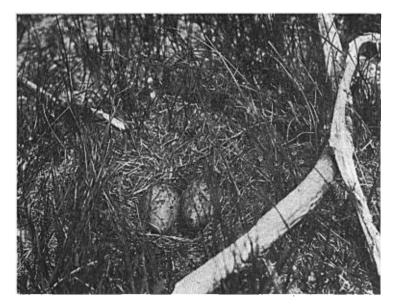
About August 1 the birds were common. We saw as many as six to-

gether. A local report, in which they were referred to as "turkeys," describes them as abundant during the fall near the southern shore of Big Quill Lake.

- 30. **Porzana carolina**. Sora Rail.—Probably common but rarely seen. A nest was found at Prince Albert containing eggs. Another at Big Quill Lake, on June 12, with eleven fresh eggs. The latter was built in the rushes by a creek, and was about a foot above the water, well made and well hidden. We found another nest containing twelve eggs.
- 31. Coturnicops noveboracensis. Yellow Rail.—"June 21, immediately following a heavy rain which flooded nearly the whole country, a single specimen of this rare bird was flushed from under our horses' feet as we crossed a swampy piece of flooded territory where the water was a few inches deep and the grass very sparse. Having no gun, we could not secure it." (Barnes.)

On July 14, at about sunset, a bird was flushed which could have been only a Yellow Rail. It flushed but a few feet from the observer. Its underparts were plainly seen, and its flight was rapid but distinctly rail like. It was near the locality of the first mentioned bird and in a similar situation.

- 32. Fulica americana. Coot.— Abundant at Prince Albert where many nests were found. None were seen at Quill Lake, probably because of the strong alkali water of the lake.
- 33. Steganopus tricolor. Wilson's Phalarope.—Common about Quill Lake and evidently breeding, but we found no nests. Dissection of several specimens showed partially developed eggs in the bird, one on June 17 with a small yolk. One bird we were unable to drive from a spot in a partially overflowed slough. She flew about us uttering plaintive cries. When flushed the birds utter a peculiar grunting noise.
- 34. Recurvirostra americana. Avocet.— One seen July 4 in Middle Quill Lake.
- 35. Gallinago delicata. Wilson's Snipe.— Seen only on August 10 in a mud hole north of Big Quill, probably migrating.
- 36. **Micropalama himantopus.** Still Sandpiper.—Two were shot at Quill Lake on July 20; they were the only ones seen, and are a male and female in summer plumage.
- 37. **Pisobia fuscicollis.** White-rumped Sandpipers.—On our arrival at Quill Lake, June 10, we saw large flocks of sandpipers about the shores and on the islands of the lake. A few days later these flocks disappeared. Several random shots brought down specimens of this species and the following.
- 38. **Pisobia bairdi.** Baird's Sandpiper.— The remarks under the preceding species apply also to this species. In a pair taken on June 16 the testes of the male were small and the ovaries of the female inactive.
- 39. **Ereunetes pusillus.** Semipalmated Sandpiper.— Flocks of small sandpipers were common on June 11; not again seen until July 3 when a flock of fifteen were noted. On July 4 four were seen, and on this date



1. Nest of Long-Billed Curlew. Quill Lake, Saskatchewan.



2. NESTS OF COMMON TERN. QUILL LAKE, SASKATCHEWAN.

another flock of twelve. All the specimens collected proved to be this species, and hence others seen are referred to it. A female taken on June 16 had ovaries showing recent activity.

- 40. Calidris leucophæa. Sanderling.— These birds were found tolerably common at Quill Lake on our arrival June 10, but they disappeared a few days later.
- 41. Totanus flavipes. Lesser Yellow-legs.— Three were seen on July 5.
- 42. **Helodromas solitarius.** Solitary Sandpiper.— One seen on July 5 at Quill Lake. "One seen in the muskeg south of Prince Albert from the railroad train June 5." (Barnes.)
- 43. Catoptrophorus semipalmatus inornatus. Western Willet.—This species was common at Quill Lake and exceedingly noisy. Without doubt it was breeding, but continuous search failed to find any nests. The tails of several species show quite a distinct barring although in size and coloration they are typically Western Willets. On the 10th of July a Willet was seen sitting upon the water like a Phalarope and was put to flight by our canoe.
- 44. Bartramia longicauda. UPLAND PLOVER.—This species we found at Prince Albert and at Quill Lake but it was not common at either place.
- 45. Actitis macularia. Spotted Sandpiper.—Two were seen July 4 at Quill Lake.
- 46. Numenius americanus. Long-billed Curlew.— Abundant at Quill Lake, where their loud protesting cries were constantly in our ears. Though there must have been many nests in the vicinity, we could find but one. This was taken June 17, and contained but two eggs, highly incubated. The nest was thinly lined with grass and situated on a piece of burnt-over prairie adjoining the lake. It lay among some bunches of willows, bleached, fire scarred, and scattered about. "The female on the nest stretched herself flat on the ground as we approached, her long neck extending in front of her like a brown stick. She seldom flushed till we were very close upon her." (Barnes.) Young just able to fly were found on July 5, and young two-thirds grown on July 9. Our assistant at Quill Lake wrote us that all the Curlew left the lake about the time of our departure, August 11, and that he had seen none there since.
- 47. Oxyechus vociferus. Killdeer. Common at Prince Albert. Less so at Quill Lake. A nest containing four eggs, about one-fourth incubated, was found at the former place May 22.
- 48. **Ægialitis semipalmata**. Semipalmated Plover.— "This species was seen in considerable numbers for the first few days after our arrival. Shortly afterward they disappeared entirely." (Barnes.)
- 49. **Ægialitis meloda**. PIPING PLOVER.— Common at Quill Lake. A nest containing four eggs was found on an island on July 4. Subsequently the species was found distributed along the south shore of Quill Lake in the proportion of about one pair of birds to the mile. At this time, July 4–5, nearly every pair had broods of young, varying in size from birds

just hatched to those the size of a sparrow. On June 14 Mr. Barnes saw a pair on an island acting as if they were nesting. A female taken on June 24 had ovaries apparently approaching activity. It was fat and moulting.

- 50. Arenaria interpres morinella?. Ruddy Turnstone.— A Turnstone was seen in the Pelican colony island about August 7. It doubtfully is referred to this subspecies.
- 51. Bonasa umbellus umbelloides. Gray Ruffed Grouse.— A specimen of this race was taken on May 26 at Prince Albert, drumming upon a log. It was common in that locality, but was not seen at Quill Lake. The tarsus is unusually heavily-feathered.
- 52. Tympanuchus americanus. Prairie Chicken.— This species and the Prairie Sharp-tailed Grouse occurred in about equal numbers at Quill Lake, though they were widely scattered. Two broods were discovered, one on July 4 just able to fly, one of which was preserved as a specimen; the other on July 14. The young of this latter brood were about the size of Quail, and were dusting themselves in the road.
- 53. **Pediœcetes phasianellus campestris.** Prairie Sharp-tailed Grouse.—Common at Prince Albert, less so at Quill Lake where it was very much scattered.
- 54. Zenaidura macroura carolinensis. Mourning Dove.— Rare at Quill Lake. Seen on July 3, 9, and 14, and on August 9.
- 55. Circus hudsonius. Marsh Hawk.— Seen throughout the territory visited but nowhere abundant.
- 56. Buteo borealis calurus. Western Red-tailed Hawk.—Common at Prince Albert and less so at Quill Lake. A nest containing three eggs, one-half incubated, was found on June 1. The female parent, an immature bird, was taken. The nest was about twenty-five feet up in a poplar tree standing in a thicket. Mr. Barnes took a set of two eggs on June 7; one egg was on the point of hatching and the other was addled.
- 57. Buteo swainsoni. Swainson's Hawk.—"This species was found common at all places where we stopped. At Quill Lake it was especially plentiful and numbers of nests were found, invariably containing two eggs. June 13 and 14 nests were taken. They were all similarly located, being from six to ten feet up in small bunches of willows or other small growth, scattered in copses over the prairie. The eggs were about half incubated." (Barnes.)
- 58. Archibuteo lagopus sancti-johannis. Rough-legged Hawk.—
  "One bird of this species was seen on June 5, fourteen miles southeast of Prince Albert." (Barnes.)
  - 59. Falco sparverius. Sparrow Hawk.— One seen on June 27.
- 60. **Asio wilsonianus.** Long-eared Owl.—A nest of this species with the parent bird upon it was found at Prince Albert on May 29. The nest contained eggs.
- 61. Asio flammeus. SHORT-EARED OWL.—One was flushed from the grass near Quill Lake on June 10, the only one seen.

- 62. **Bubo virginianus subarcticus**. Arctic Horned Owl.—An adult female of this species was taken at Prince Albert on June 5. The stomach contained the remains of a small mammal.
- 63. **Dryobates pubescens medianus.** Downy Woodpecker.— Tolerably common about Prince Albert. A female was flushed from a hole in a dead poplar May 31. Above it, in the same tree, was found a hole containing a nest of the Tree Swallow.
- 64. Sphyrapicus varius. Yellow-bellied Sapsucker.—Common about Prince Albert, where it was undoubtedly nesting.
- 65. Colaptes auratus luteus. Northern Flicker.—Common at all places visited.
- 66. Colaptes cafer collaris. Red-shafted Flicker.—Mr. Barnes believed this species to be equally common with the preceding species.
- 67. Chordeiles virginianus henryi. Western Nighthawk.— "This species was observed at both Quill Lake and Prince Albert." (Barnes.)
- 68. Tyrannus tyrannus. Kingbird.— Common in all localities visited; especially so at Quill Lake. A nest was found in a low willow tree at latter place containing three newly hatched young July 14.
- 69. Sayornis phœbe. Phœbe.—Common at Prince Albert; a beautiful nest of moss, containing fresh eggs, was found on the 26th of May, in a well.
- 70. Empidonax minimus. Least Flycatcher.— Quite common in poplar thickets or "bluffs" between Big and Little Quill Lakes.
- 71. Otocoris alpestris leucolæma. Desert Horned Larks.— Horned Larks were common in all places visited, and judging from the number seen from the train windows they were widely distributed throughout Saskatchewan. Two immature specimens were the only ones taken; they were useless for identification and the local birds are consequently referred to the above form, to which they theoretically belong.
- 72. Corvus brachyrhynchos. Crow.— Abundant at Prince Albert and Quill Lake. Very distructive to ducks' nests. We found many of these nests in which the eggs were partly or wholly destroyed by crows. It was a common sight to see crows walking through and carefully exploring the grassy places where ducks were likely to nest. Many nests of the crow were found, usually placed six or seven feet from the ground in poplar thickets, each containing (June 12 to 17) four fresh eggs. One nest at Quill Lake was situated on the ground, at the forks of the dead branches of a fallen and nearly burned up weather-bleached poplar tree. This was on June 23, at which time the nest contained young with pin feathers.
- 73. **Dolichonyx oryzivorus.** Bobolink.—Common at Quill Lake, scattered over the prairie in small colonies or isolated pairs. One partly built nest was found June 24.
- 74. Molothrus ater. Cowbird.—Exceedingly abundant. Eggs of this species were found in the nests of the following: Swamp Sparrow, Red-winged Blackbird, Western Savannah Sparrow, Clay-colored Sparrow, Leconte's Sparrow. One Western Savannah's Sparrow's nest con-

tained four Cowbird's eggs and none of the rightful owner, all partly incubated

- 75. **Xanthocephalus xanthocephalus**. Yellow-headed Blackbird.—Abundant at Prince Albert but only locally common about Quill Lake. At the former place many nests with eggs were found. Numbers of nests with fresh eggs were found May 29.
- 76. Agelaius phœniceus fortis. Thick-billed Redwing.— Abundant throughout the territory visited. Many nests were found. Young just able to fly were common about June 29. Five males collected are by no means typical of the above race. When compared with sixteen specimens, mostly from the Atlantic States, the Saskatchewan birds were equal in size to eleven, while they were actually smaller than five of the eastern birds. Still the Saskatchewan birds average larger than typical A. p. phæniceus. The five Saskatchewan birds measure as follows: Wing, 121; tail, 95; culmen, 25. Unfortunately no females from Saskatchewan were collected.
- 77. Sturnella neglecta. Western Meadowlark.—Common at all places visited. A nest found May 31 at Prince Albert contained six eggs one-fourth incubated, and a nest with fresh eggs was found June 12 at Quill Lake.
- 78. Icterus galbula. Baltimore Oriole.— Common at Prince Albert; less so at Quill Lake.
- 79. **Euphagus cyanocephalus.** Brewer's Blackbird.—Common throughout the territory visited. No nests were found. On July 3 the Brewer's Blackbirds had begun to flock, when a flock of fifty to seventy-five were observed. A few Red-wings were among them, but the Brewer's Blackbirds were often seen vigorously driving them from their midst.
- 80. Quiscalus quiscula æneus. Bronzed Grackle.— Tolerably common at both localities. Mr. Barnes took a nest with fresh eggs on June 9 at Saskatoon.
- 81. Astragalinus tristis. American Goldfinch.—Tolerably common at Prince Albert. Seen at Quill Lake on June 24.
- 82. **Plectrophenax nivalis.** Snow-bunting.— Seen quite frequently in ploughed fields along the Canadian Pacific Railway between Winnipeg and Regina on May 22. The birds were in the black and white breeding dress.
- 83. Calcarius ornatus. Chestnut-collared Longspur.— Abundant about prairies surrounding Regina and Quill Lake. "Several nests were found June 4 at Regina. All were situated on the ground at the foot of a small weed or bush, on the open prairie where the grass was short, and contained eggs well advanced in incubation. The nests were invariably found by watching the birds, which would fly back and forth in a semicircle as I stood still. Finally they would alight near the center of the semicircle almost opposite where I stood and creep through the grass stealthily and settle upon the nest." (Barnes.) A fledgling was seen on July 5.

- 84. Rhynchophanes mccowni. McCown's Longspur.—"I found McCown's Longspur plentiful at Regina where I took one nest June 4. It was located in a depression near the road on the open prairie where there was practically no grass. It had been run over by a wagon, crushing the nest out of shape. The bird, however, was on the nest and the eggs were uninjured." (Barnes.)
- 85. **Poecetes gramineus confinis.** Western Vesper Sparrow.—Plentiful at Prince Albert and Quill Lake.
- 86. Passerculus savanna alaudinus. Western Savannah Sparrow.—Common at Prince Albert. Abundant at Quill Lake, where it was nesting. Nests were usually sunk deep in the ground at the base of a bunch of grass on the prairie. The birds would seldom flush from the nest till nearly trodden upon. The eggs were usually four, occasionally five, and were fresh from June 10 to 20. On July 14 a nest with two eggs and one of the Cowbird found. Fledglings just able to fly were seen quite commonly on July 3. They were usually flushed from the grass.
- 87. Passerherbulus lecontei. Lecontei's Sparrow.— This species was common in some localities about Prince Albert and was plentiful in the alkali grass along the edge of Quill Lake. One nest was found on June 22 with two sparrow eggs and one of the Cowbird. The parent bird was flushed from the nest. It was situated at the edge of a willow thicket under a flattened wisp of dead grass, through a minute hole in which the bird descended perpendicularly into the nest. The nest was found abandoned on June 29, one sparrow egg only remaining. On July 14 a Leconte's Sparrow was flushed from her nest in a reclining wisp of dried grass. The nest was entered by a small hole in the wisp above the nest. This habit of nesting in a bunch or tussock of dead grass, in which the entrance hole is a mere parting of the grasses, and very inconspicuous, seems characteristic of this species. The above nest contained four young with pinfeathers on the feather tracts.
- 88. **Passerherbulus nelsoni.** Nelson's Sparrow.— One specimen taken on June 11.
- 89. Zonotrichia albicollis. White-throated Sparrow.— Tolerably common at Prince Albert, its notes were several times heard at night coming from a popular thicket.
- 90. Spizella pallida. CLAY-COLORED SPARROW.— Abundant at Prince Albert and Quill Lake, where it was one of the most characteristic birds of these regions. Its monotonous insect-like trill was heard from all sides on several mornings. The nests were usually placed in small wild rose bushes or tangled weeds on a sloping hillside, very close to the ground. They usually contained four eggs. Nests with fresh eggs were found at Prince Albert June 1 and June 7, and at Quill Lake June 16. The song of this bird is a rasping quee-quee-quee.
- 91. Spizella pusilla arenacea. Western Field Sparrow.—"Rare: only one seen. This I flushed from a nest fourteen miles southeast of Prince Albert on June 7. The eggs were fresh." (Barnes.)
  - 92. Melospiza melodia melodia. Song Sparrow. Or. Melospiza

- melodia juddi. Dakota Song Sparrow.—Abundant at Prince Albert where it was a common nester. Common at Quill Lake. Fresh eggs observed on June 6 and 7. No specimens taken, hence theoretically referred to one of the above species. Some heavily wooded islands were favorite resorts of this bird.
- 93. **Melospiza georgiana**. Swamp Sparrow.—A pair of these birds was seen at Prince Albert on June 7. They behaved as if their nest was close by. Mr. Barnes reports it as common.
- 94. Pipilo maculatus. Arctic Towhee.—One of these birds was heard in a poplar thicket on July 14.
- 95. Zamelodia ludoviciana. Rose-breasted Grosbeak.—Three of these birds were seen at Prince Albert on June 7.
- 96. Calamospiza melanocorys. LARK BUNTING.— One of these birds was identified with reasonable certainty at Prince Albert.
- 97. **Progne subis.** Purple Martin.— Seen at Winnepeg and Quill Lake. In the latter place a pair was nesting in the eaves of a settler's cabin at the edge of rather heavy timber.
- 98. **Petrochelidon lunifrons.** CLIFF SWALLOW.— Abundant at Prince Albert and nesting.
- 99. Hirundo erythrogaster. Barn Swallow.— Several pairs were found nesting under a bridge at Quill Lake on June 23. Others were seen.
- 100. Iridoprocne bicolor. TREE SWALLOW.—Common breeder at Prince Albert. Nest found in a hole in a tree on May 31. Tolerably common at Quill Lake.
- 101. Riparia riparia. Bank Swallow.— "Not uncommon at Prince Albert." (Barnes.)
  - 102. Bombycilla cedrorum. CEDAR WAXWING.— Two seen on July 6.
- 103. Lanius ludovicianus excubitorides. White-rumped Shrike.—
  "June 8 I found a Shrike's nest six feet up in a small bunch of willows at the edge of a swamp. It contained six highly incubated eggs. No parent bird was seen." (Barnes.) On July 14 an adult was seen feeding two young nearly as large as itself. A single individual was seen on July 9.
- 104. Vireosylva olivacea. Red-Eyed-Vireo.— Not uncommon at Prince Albert and Quill Lake.
- 105. **Vireosylva philadelphica**. Philadelphia Vireo.—"Not uncommon at Prince Albert." (Barnes.)
- 106. Vireosylva gilva swainsoni. Western Warbling Vireo.— One specimen was taken on June 1. Others, presumably of this species, were frequently seen at Prince Albert and Quill Lake.
- 107. **Dendroica æstiva.** Yellow Warbler.—Common at both localities. A nest was found at Prince Albert on June 6. The species was observed at Regina on May 22.
- 108. Dendroica maculosa. Magnolia Warbler. Observed at Regina on May 23.
- 109. Vermivora peregrina. Tennessee Warbler.— Observed in considerable numbers at Regina on May 23.

- 110. Anthus spraguei. Sprague's Pipit.— A specimen was taken at Quill Lake on June 30. Others were seen.
- 111. Dumetella carolinensis. Catbird.—Several were seen at Prince Albert.
- 112. **Toxostoma rufum.** Brown Thrasher.—A settler who was familiar with this bird in "the States" reported that a pair nested on his place at Quill Lake in June, 1909.
- 113. Troglodytes aëdon parkmani. Western House Wren.—Tolerably common in poplar thickets at Quill Lake.
- 114. Cistothorus stellaris. Short-billed Marsh Wren.—Common about the northern end of Big Quill in long prairie grass adjoining the shore of the lake. One specimen was taken on June 22.
- 115. Telmatodytes palustris. Long-billed Marsh Wren.—Not uncommon in the vicinity of Prince Albert where fresh eggs were found on June 6 and 7.
- 116. Hylocichla fuscescens salicicola. Willow Thrush.—Common at Prince Albert. Oftener heard singing than seen.
- 117. Planesticus migratorius. Robin.—Robins were tolerably common at Prince Albert. But one specimen collected. This is intermediate between the eastern and the western form. There is a white spot at the tip of one of the outer tail feathers, but it is lacking on the other. However, the bird has the more rufous breast and smaller size of the eastern form, so is referred to migratorius. Prof. McCown states that the eastern Robin occurs in this region, but other investigators have found the western form propingua. (But see Auk, Vol. XXV, p. 34, Jan. 1908.)
- 118. Passer domesticus. English Sparrow.— Seen about Prince Albert and at the farm where we staid, eight miles from there. Seen at Quill Lake on June 27.

#### ADDENDA.

Mr. W. B. Mershon of Saginaw, Mich., visited Quill Lake with a party of sportsmen on October 8, remaining several days. Mr. Mershon has kindly written us, giving some bird notes that are interesting because relating to conditions at Quill Lake during the fall, while ours are all summer notes. Mr. Mershon mentions a snowstorm on October 11, and a temperature of 20 degrees above on that date, with the ponds covered with thin ice. The following species are mentioned:

Phalacrocorax auritus. Double-crested Cormorant.— A flock of 5 was seen on October 9. As these are the only ones observed during a stay of four days, it is probable that most of the birds seen during the summer had departed at this date.

Anatidæ. Ducks.— Ducks were plentiful, but were flying high and frequenting the middle of the lake. They did not decoy well, nor in other ways offer the sportsman good shooting. The species mentioned are Canvas-back, Blue-bills, Redheads, Widgeon, and Mallards. As Mr. Mershon is a sportsman well acquainted with the ducks of North America, and as he mentions only such species as we found common during our stay, it is probable that a number of species of ducks avoid Quill Lake to a great extent.

Oidemia fusca. Velvet Scoter.—"I noticed a great many flocks of Velvet Scoter, and succeeded in killing one fine specimen that I am now having mounted." (Mershon.)

Branta canadensis. Canada Goose.— Geese were reported as thick in wheat stubble west of Quill Lake.

**Olor columbianus.** Whistling Swan.—"I saw quantities of swans." (Mershon). Date, October 9.

Charadrius dominicus. Golden Plover.— One seen on October 9, and two on October 11.

Bonasa umbellus umbelloides. Gray Ruffed Grouse.—Contrary to our experience, Mr. Mershon found this bird not rare at Quill Lake, getting three specimens and seeing another. He comments upon the unusually heavy feathering of the tarsus of the birds taken.

### GENERAL NOTES.

A Parasitic Jaeger near Ottawa, Ontario. — A bird of the year of Stercorarius parasiticus was brought to the undersigned during the first week of September, 1909. It had been shot on the 4th of that month on the Ottawa River, near where the Lievre empties into it. It was a male; the stomach was empty. The nearest localities given in Macoun's latest catalogue for this species are the Great Lakes (Fleming) and the Gulf of St. Lawrence (Dionne). If I remember correctly, there had been no great storms or other violent meteorological disturbances previous to the date of capture. It therefore seems somewhat remarkable that this species should be found in the place mentioned. — G. Eifrig, Addison, O.

European Widgeon (Mareca penelope) in Florida.— I want to record the taking of two specimens of Mareca penelope near Titusville, Florida, on February 20, 1907. Both were full-plumaged adult males and were shot by N. F. Emmons of Boston. One bird he had mounted for himself and the other, which he presented to me at the time, is in my collection. The only mention that C. B. Cory makes of this bird in his book entitled