

auto trips farther afield. The day before he left he reported a heavy frost. In the course of this season's work he obtained personal notes on 183 species, and specimens of 147 of them, which added to the previous year's observations and collections, form a sufficient basis for a fairly complete and representative list of the birds of the locality.

Some few species are herein included upon circumstantial evidence and until confirmatory specimens are secured must be looked upon as hypothetical. However, the evidence upon which they are based is fully given and the reader can form his own judgment as to their value, bearing in mind, however, that no record is absolutely unassailable until specimens are secured and examined by competent authority.

1. WESTERN GREBE, *Aechmophorus occidentalis*.

Though reported by all previous observers as remarkably common we saw none at any visit. The Ward brothers say that they used to breed in such numbers on the marshes that a canoe could scarcely pass between their nests, and Seton reports the species as an abundant breeder and notes that "its shrill metallic cries could be heard from the quill reeds day and night". He further observes "it is the easternmost breeding place of the species. Most birds peter out towards the limit; but here, at the northeastern corner of its limit, this bird has a sort of metropolis". With the lowering of the water this is all past.

2. HOLBOELL'S GREBE, *Colymbus holboellii*.

Reported by Gunn "in fair numbers" and by the Ward brothers as "never very common". Two seen by Young, May 25, 1918, are all we can report.

3. \*HORNED GREBE, *Colymbus auritus*.

Both Arnold and Raine report it nesting in 1894. One only was noted in 1917, on June 4. In 1918, Young found it rather common, noting it almost daily through May and from the end of July to Sept. 2.

4. \*PIED-BILLED GREBE, *Podilymbus podiceps*.

Seton reports it common and evidently breeding. In 1917, we noted but three in September on a small pond, but in 1918 Young observed individuals, mostly singles, April 25 to May 18, and the latter half of August to the middle of September.

5. \*COMMON LOON, *Gavia immer*.

The Ward brothers say that it used to breed though they never found its nest. On both visits we saw single individuals almost daily. They were usually observed flying over and seldom showed any inclination to stop on the lake.

6. IVORY GULL, *Pagophila alba*.

In Mr. Darby's taxidermy establishment in Winnipeg, I examined on May 15, 1917, a mounted specimen of this species which I was informed was taken at Woodlands, Man., on Dec. 27, 1915, a station on the Canadian Northern Railway just south

of Shoal Lake, and hence within the scope of this paper. It is a medium-sized, pure white gull, with face and forehead flecked unevenly with light smoky gray, with remains of terminal tail band, dark spots on tips of primaries, and a few dark flecks on tertiaries, bend of wing, and lesser coverts.

7. HERRING GULL, *Larus argentatus*.

Chapman reports finding a few Herring or California Gulls nesting on Pelican Island and states that they were very troublesome to other birds, destroying numbers of Tern's eggs and even those of the Pelican. Large gulls of the Herring Gull type were seen by us on every visit but were very shy and all we managed to take were Ring-bills. Young tells of a Herring Gull carrying off a Horned Grebe he had shot and was wading out to retrieve, lifting it bodily by the nape of the neck and taking it out to mid-lake where, joined by another, the two proceeded to tear it to pieces. The Ward brothers say the species bred on one of the rocky islands as late as 1916, but as no boats were available were unable to say whether they continue to do so or not.

The specific status of the larger gulls of the province has not been well determined. Specimens of both migrants and breeders are necessary from various localities. The Herring Gull and the California Gull, *Larus californicus*, are so similar as to be differentiated with difficulty. When juvenile, probably careful size comparison between similar ages and sexes is the only guide. When adult, probably the best criteria is the colour of the legs and feet; in *argentatus* these are flesh coloured whilst in *californicus* they are said to be light greenish.

8. \*RING-BILLED GULL, *Larus delawarensis*.

Raine reported the species breeding on the islands in 1894. We saw a few in the spring of 1917, but were not always able to separate them with certainty from the Herring Gull as the ringed bills are only safe criteria when perfectly adult and most of the large gulls seen on the lake showed various traces of juvenility. Young recognized the species with certainty only during the latter part of July, August, and September. Four birds were taken and all are juveniles. They probably do not now nest on the lake.

9. \*FRANKLIN'S GULL, *Larus franklini*.

In 1917, common on our first arrival May 17, but became scarcer towards the latter part of our stay, to June 14. According to Young, it was present on his arrival on the lake on April 24, reached a maximum on May 7, and then gradually became reduced in numbers to June 7. It returned on July 1 and remained until Aug. 27, after which no more were seen. Very large flocks were noted Aug. 8 to 10. Chapman notes it as breeding, but there is no indication that it nests on the lake now that the marshes are gone.