

NOTES ON THE LESSER SNOW AND BLUE GEESE  
OBSERVED AT WHITEWATER LAKE, MANITOBA.

BY C. G. HARROLD.

IN the spring of 1926 unusually large numbers of Lesser Snow Geese (*Chen hyperboreus hyperboreus*) and Blue Geese (*Chen caerulescens*) arrived in southern Manitoba. At Whitewater lake, a few miles north of the Turtle mountains in southwestern Manitoba, the first arrivals appeared in the afternoon of April 11 coming in from the north at a great height. They had probably circled to descend against the wind which was south at the time. For the next few days they arrived in steadily increasing numbers until in about a week they were in countless thousands. Every morning at daylight I could tell almost to the minute when the first flock was about to leave for the stubble, by the steadily increasing volume of sound coming from the white mass of Geese in the lake. This increased to a certain pitch when there was silence for a second, then a roar of wings as the first flock of possibly several thousand birds left the lake, quickly spreading out in regular line formation. After several minutes, the Geese in the lake started to call again and the process described above was repeated until all had left the lake. There were no stragglers between the flocks. Sometimes ten or twelve of these large flocks would start out and on eight consecutive mornings, they passed right over my camp at only 50-100 feet from the ground, a remarkable experience. They straggled back to the lake at about 10 a.m. On first arrival they do not seem particular whether they go out to feed again in the afternoon or not, but after staying several weeks they make two regular flights a day; sometimes going 20-30 miles from the lake. The afternoon flight then starts out with as great regularity as that in the morning, usually leaving at 5-5:30 p.m. and returning after sunset. They seem to prefer barley to any other variety of grain. The direction taken in foraging expeditions from the lake depends on the wind to a large extent. The Geese will usually go out against the wind or quartering it. On one occasion the first flock of the afternoon flight had

just started out towards a heavy storm which was blowing up. The first line had reached a point about a mile from the lake when the storm broke on them with such severity that the miniature tornado of wind and hail drove them to the ground. None appeared to have been injured by the hail however and in a few minutes they continued on their way. I have seen them go out to feed against a driving dust storm so thick that one could scarcely see thirty yards. On such occasions they fly within a few feet of the ground and will pass very close to a man in full view, apparently losing all their usual wariness. When I left on May 9 their numbers had not greatly diminished. Their usual stay is from four to five weeks at this point. The main line of flight of *C. caerulescens* is considerably further east, consequently the proportion of Blues among the Lesser Snows is relatively small at this lake. It is not uncommon to see a flock of four or five hundred Lesser Snows without a single Blue among them. However the Blues that are present in this locality are very interesting birds. They show every possible stage of intergradation of plumage from a bird with entire underparts, head and neck white, to the typical dark colored *caerulescens*. Apparently, however, the bird described above with entire underparts white is a rarity as, although hundreds of Blues passed over my head at close range every day for two weeks, I only detected the one example which was collected. A plumage that was not uncommon showed entirely white underparts except for a dark band across the breast separating the white of the head and neck from that of the underparts. Further encroachment of the white areas was rare, only a few birds showing white patches cutting this dark band. All stages between this dark banded bird and the typical blue were more or less common. One feature, which is very noticeable, is the retention of the normally colored interscapular region and wings in all plumages except that in examples showing the most extensive white areas below, the lower back and inner tertials also become white. Generally speaking, the Blue Goose appears to acquire its adult plumage more rapidly than is the case with the Lesser Snow. I have never seen a juvenile Blue retaining the brown head in April, whereas some juvenile Lesser Snows differ little from October birds. One Blue however, collected in April,

had a white head only, the neck still retaining the juvenile plumage.

With regard to a possible explanation of the variability of the plumage of *C. caerulescens*, it is interesting to note that in the main line of flight of this species, the birds show little or no digression from the normal plumage, whereas at the western edge (I have never seen a Blue Goose west of the Deloraine district) of their range, variations are common. In other words, if you see large flocks composed entirely (or nearly so) of Blues, the probability is that they are uniformly typical in plumage but if small numbers of Blue are noticed in large flights of Lesser Snow, variations will predominate. The same conditions pertain in their winter quarters according to Mr. F. H. Kennard, who is inclined to favor hybridism as the explanation. This theory is supported by the fact that I have on three different occasions seen a Blue Goose and a Lesser Snow chasing a Lesser Snow in their peculiar mating flight. The notes of the two species appear to me to be indistinguishable, both varying greatly in tone, probably due to age and sex.

*Winnipeg, Manitoba.*