

FROM FIELD AND STUDY

A Mass Emigration of Sharp-tailed Grouse from the Tanana Valley, Alaska, in 1934.—In Snyder's monograph (Univ. Toronto Studies, Biol. Ser., 40, 1935) on the Sharp-tailed Grouse (*Pedioecetes phasianellus*), considerable attention is given to a mass emigration of Sharp-tailed Grouse that occurred in Canada in 1932. According to him this emigration, which was largely a southward movement, originated from peak populations centered in the watersheds of Hudson Bay and James Bay, Ontario. Some historical evidence is given that indicates a similar mass emigration of these grouse occurred in 1896 in the same region. From these data Snyder was led to suggest, for this species, the possibility of a pronounced thirty-year cycle superimposed on the more widespread ten-year game cycle.

Further, he says, "It is of interest to mention at the outset that a similar movement (mass emigration) has not been reported in the case of northern sharp-tailed grouse inhabiting the northern parts of the Prairie Provinces, Mackenzie and Alaska regions, either in 1932 or any other year" (p. 15).

In view of Snyder's statements it seems important to us to put on record facts that have come to our attention concerning a similar emigration of these grouse from the Tanana Valley, Alaska. According to two long-time residents, Ivar Skarland and Otto Wm. Geist (oral communications), Sharp-tailed Grouse were very abundant in the vicinity of Fairbanks and College, Alaska, during the early 1930's. This concentration was apparently rather widespread throughout the Tanana Valley, as Mr. Geist saw large numbers of these grouse along the Alaska Railroad between the north side of the Alaska Range and Fairbanks. The population built up to a peak in 1934. At this time Dr. Skarland says one could not walk the railroad tracks between College and Fairbanks, a distance of less than five miles, without flushing hundreds of these birds along the right of way. According to Joseph T. Flakne (oral communication to N. W. Hosley) this grouse was particularly concentrated in lowland areas like the reindeer pasture where willow brush was abundant; it also was concentrated in the fields of the agricultural experimental station, according to Skarland.

One day in October, 1934, this great number of grouse suddenly arose en masse and flew off in a great cloud to the south toward the mountains. Mr. Flakne was in the reindeer pasture at the time. He estimated the flock to be two or three miles long, half a mile wide, and in a solid formation several birds deep. (We are indebted to Dean Hosley of the University of Alaska for permitting us to use the data from his notations of a conversation with Mr. Flakne in 1951.) No grouse seemed to be left in the area, and nothing was ever learned of the fate of the emigrating birds. Except for a few local concentrations, the Sharp-tailed Grouse has not been a common bird in interior Alaska since then. The essential facts about this emigration are also contained in a written report dated 1938 by J. W. Warwick (United States Fish and Wildlife Service Files, Juneau, Alaska), which the junior author has seen.

It is interesting to add that the years from 1934 to 1936 were peak years for populations of other tetraonid species and for the Snowshoe Rabbit (*Lepus americanus*) in the same region (unpublished data in the files of the Alaska Cooperative Wildlife Research Unit). We have found no indication in the literature of a similar mass emigration of grouse in Alaska in the 1890's, but it should be kept in mind that in this decade there was not much field work in the territory and thus such a movement might easily have gone unobserved.—TOM J. CADE and JOHN L. BUCKLEY, *Alaska Cooperative Wildlife Research Unit, College, Alaska, May 25, 1953.*

The Composition of a Wintering Population of White-crowned Sparrows in South-eastern Washington.—In the course of investigations on the migratory and reproductive cycles of White-crowned Sparrows of the race *Zonotrichia leucophrys gambelii* we have procured substantial numbers of individuals for experimental purposes. Many of these were from the population which winters in the Snake River Canyon of southeastern Washington. This is certainly one of the most northern, if not the northernmost, of wintering populations of this race. We have also obtained substantial numbers of migratory birds in spring and fall from the higher Palouse country in the vicinity of Pullman, Washington. To augment our data on sex and age groups, T. D. Burleigh of the Fish and Wildlife Service has kindly supplied us with the pertinent information on specimens which he has obtained in the Snake River Canyon and in the higher Palouse country of western Idaho. Mr. Burleigh's specimens were obtained by shooting. Ours were obtained in part by shooting and in part by