SAVANNAH SPARROW MIGRATION ROUTES IN THE NORTHWEST

WITH MAP

By H. S. SWARTH

In "Birds of Nunivak Island, Alaska" (Pac. Coast Avifauna no. 22, 1934, pp. 48-51, fig.) there are detailed my convictions regarding the classification of the Savannah Sparrows (*Passerculus sandwichensis*) of the northwest. I refer particularly to the division there made between the gray-colored, slender-billed bird of interior British Columbia and Alaska, to which I apply the name *P. s. alaudinus*, and the brown-colored, larger billed bird of the Sitkan coast, to which I apply the name *P. s. anthinus*. In the Atlin region and in the upper Yukon drainage *alaudinus* characters seem to be developed to their utmost degree. My convictions remain as stated in the above cited publication, but I have come into possession of supplementary information since that was written.

In 1934, I was able to reach Atlin, British Columbia, as early as March 28, while winter conditions still obtained and before the first north-bound migrant of any kind appeared. Mr. R. M. Stewart, game warden and ornithologist, assured me that he had been getting there two kinds of Savannah Sparrows, the first arrivals in the spring being larger and otherwise distinguishable from the nesting birds, and he showed me specimens that appeared to bear out his claims. Together we watched for arriving migrants, and on April 19 secured the first Savannah Sparrow, when the ground was still mostly snow covered. We got only one or two of the larger birds then, but this year (1935, a year of delayed migration) Stewart sent me seven more, taken from May 8 to 17 (nos. 42214-42220, Calif. Acad. Sci.). The birds that I collected, as well as this later series, are sufficiently bulky and large-billed as compared with the local breeding race, to make me suspect in the field that they were the large *sandwichensis*. Comparison of specimens at once showed that this was not the case, and it was then a question to ascertain where their affinities did lie. They were not *anthinus* of the coast of southeastern Alaska, which has a more stubby bill and much more of a yellow suffusion about the head.

In the Museum of Vertebrate Zoology there is a series of breeding Savannah Sparrows from Prince William Sound, Alaska, that was discussed by Grinnell in his report on "Birds of the 1908 Alexander Alaska Expedition (Univ. Calif. Publ. Zool., 5, 1910, pp. 399-401). Although he affixed the subspecific name *alaudinus* to the series, he commented upon certain strong resemblances toward *savanna* (=*anthinus*) of the Sitkan district. My own specimens are sufficiently like these Prince William Sound birds, both in color, making due allowance for different stages of wear, and in size and shape of bill, to convince me that there is where they belong. I seem actually to have been able to detect a minor stream of transients passing through the Atlin region, just before, and partly at the same time when, the closely related breeding birds were arriving and settling down for the summer, and to learn where those migrants were bound. The migration route from Atlin toward Prince William Sound lies almost due west, very slightly to the north. The migration route southeast from Atlin, as well as the winter home of this variant, remain for some future observer to ascertain. (See fig. 6.)

Besides the satisfaction derived from finding the answer to a puzzling question, it seems to me that there are implications inherent in this Savannah Sparrow inquiry that are of some value to consider. The Savannah Sparrows, a variable group, in

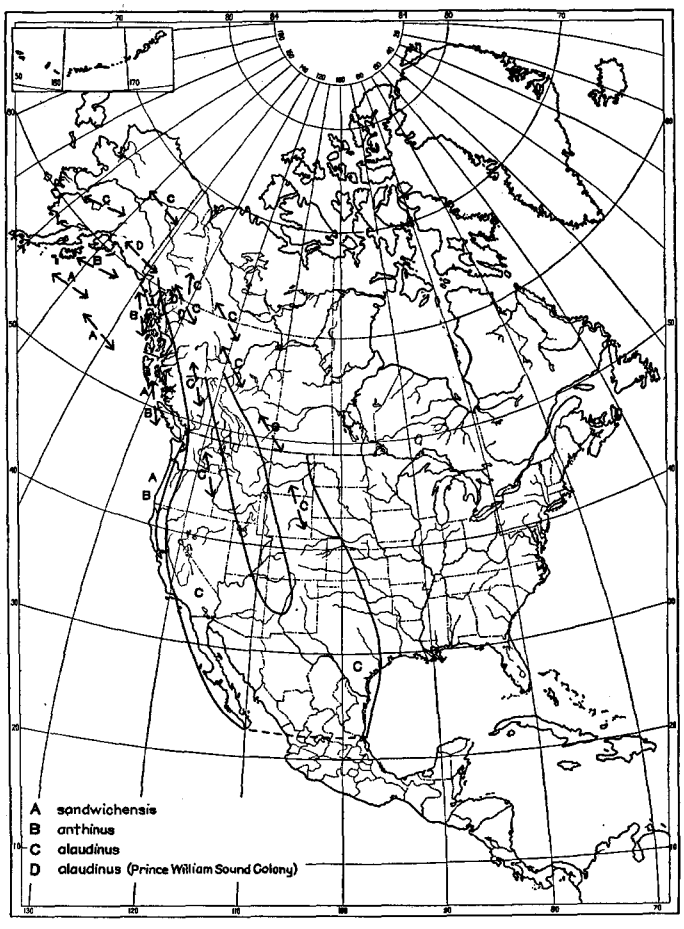

Fig. 6. Apparent lines of migration of Savannah Sparrows in the northwest. A, *Passerculus sandwichensis sandwichensis*, breeds on Unalaska; travels almost east and west across the Gulf of Alaska and adjacent Pacific, avoiding the mainland coast of southern Alaska, and winters mainly on the coast between Puget Sound and San Francisco Bay. B, *P. s. anthinus*, of Kodiak Island and the Sitkan district; travels north and south along the coast, winters mainly on the coast between Puget Sound and San Francisco Bay. C, *P. s. alaudinus*, breeds in interior British Columbia, Yukon, and Alaska, reaching the coast from the Alaska Peninsula northward; migrates north and south entirely east of the Coast Ranges, the migrants being split into two streams by the Rocky Mountains, D, the Prince William Sound variant of *alaudinus*; travels east and west between Prince William Sound and northern British Columbia, probably along the east base of the Rocky Mountains to and from the winter habitat.

their modes of variation offer some difficulties in classification. Many names have been applied to local races, especially in western North America, resulting in a multiplicity of nominal subspecies, and, on the other hand, it has lately been urged that all of the many forms of the genus *Passerculus* except *P. princeps* be regarded as subspecies of one species. To place the several northern races, with their extensive

and partly overlapping migration routes, the aggregation of resident forms along the coast of California, and the Lower California birds of *rostratus* affinities and peculiar reverse migrations, all as units in a linear row of subspecies, may be observing the rules of the game that classification tends to become, but it does not help much toward an understanding of the development and relationships of the birds themselves.

Only occasionally is one fortunately enough placed to seize upon a bit of information such as I am here recording, but it is the sort of knowledge that should be sought and applied. Any general classification of the Savannah Sparrows, to be at all satisfactory, must have some basis of field work. In this particular case, anyone working from specimens alone, with no personal knowledge of conditions, might easily conclude that Savannah Sparrows from coast and interior were all alike. With birds that are as difficult of classification as these it is likely that every extensive collection contains specimens just as apt to yield misinformation with uncritical acceptance of surface appearances.

In a report upon a collection of Alaskan birds (Univ. Calif. Publ. Zool., 7, 1911, p. 84) I stated my belief that *Passerculus s. sandwichensis* might migrate across the Gulf of Alaska rather than follow the coast line. There is an old record that I had not seen at that time nor until much later, that bears directly upon this point. W. H. Dall, in a paper entitled "Notes on the avi-fauna of the Aleutian Islands, from Unalashka eastward" (Proc. Calif. Acad. Sci., 5, pt. 1, 1873, p. 27) under *Passerculus sandwichensis,* remarks: "When about five hundred and fifty miles from land (the Shumagins being nearest) in latitude 47° N., and longitude 152° 03′ W., one of these birds flew aboard, and being secured, lived several days in an extemporized cage. This was on the 13th of September, 1871."

California Academy of Sciences, San Francisco, October 10, 1935.

FURTHER STUDIES UPON THE BIRDS OF THE PLEISTOCENE OF RANCHO LA BREA

By HILDEGARDE HOWARD

During the last two years I have spent some time going over a small collection of birds excavated from the Rancho La Brea Pleistocene under the auspices of the Southern California Academy of Sciences. This material collected by the Academy many years ago, was given to the Los Angeles Museum in 1911, two years before the Museum began its own extensive excavations at Rancho La Brea. While the Museum collections have long since been cleaned and catalogued, the greater part of the Academy bird material has only recently been put in condition to study. For the cleaning and preliminary sorting of this material I am indebted to Mr. Irving Brown, who generously gave his time to this work.

In the course of studying the bones in this Academy collection, I have had occasion to make comparisons with specimens in the main Museum collection as well. The result is that I now find myself in possession of a few new facts concerning the birds of these deposits. Though I have found some scantily represented species in the Academy material which do not appear to be present in the other collections from Rancho La Brea, there is no marked difference in the variety of species. However, there is considerable difference in their relative abundance, which makes this assemblage worthy of mention.

The following major differences may be noted when comparison is made with