## THE YOLLA BOLLY FOX SPARROW

## By JOSEPH MAILLIARD

A S WE BECOME better acquainted with the genus Passerella we find it proving to be one of the most plastic forms of our North American avifauna. It bids fair to rival even the Melospiza group, which has been split up into subspecies from so many different localities that it is hard to keep track of them. It has been said that we have song sparrows described from every marsh in California! While this is not literally true, there certainly are remarkable differences in a great many instances, and we are finding the same sort of thing in the fox sparrows.

For some years students interested along these lines, especially observers on the Pacific coast, have been sorely puzzled by the differences among individual specimens of Passerella found in winter in the same localities. These differences were such as could only be accounted for upon the hypothesis that they indicated separate forms, each with its definite breeding ground, and not that they were individual variations of any one race. As time goes on and we have more numerous and widespread records, with more detailed observations, we are discovering that this hypothesis is the correct one.

Readers of The Condor may remember that their attention was called to the occurrence in winter in Marin County, California, of a very large-billed fox sparrow which seemed more nearly related to the Stephens Fox Sparrow (Passerella iliaca stephensi) than to any other known form (Condor, xiv, March, 1912, p. 63). Alternative explanations of this occurrence were that either there was an undiscovered race closely approaching stephensi breeding somewhere to the north of Marin County, which it visited in winter; or else, contrary to the rule that in the northern hemisphere birds do not winter north of their breeding range, these individuals were actually examples of stephensi which had straggled northward in the winter season. At the time I first took up this matter the only specimens of stephensi available for comparison were in worn summer plumage, while the Marin County birds were in bright new feather. This made the comparison very unsatisfactory, in that the difference in color might be accounted for by this fact. Measurements of parts unaffected by wear were practically identical in the two lots. This Marin County form was again mentioned in The Condor, xv, March, 1913, p. 93.

Since that time material has been accumulated in the way of breeding birds obtained in Trinity and Tehama counties, California, by collectors from the Museum of Vertebrate Zoology of the University of California, which proves that there actually is a race of fox sparrow breeding to the north, as already suspected. But this form, for want of sufficient material for seasonal comparison, was still linked up with stephensi of southern and southeastern California. Recently, however, Mr. H. S. Swarth of the Museum of Vertebrate Zoology, has become interested in the status of the Passerella group and has gotten together a large number of specimens for comparative study. While working over these he came across just the sort of material needed to put together the chain of evidence in favor of the distinctness of this new form, and kindly notified me of the fact, we having often discussed this matter together. As he is working out the status of the subspecies of Passerella on this

coast, details of the winter distribution of this subspecies are left for him to touch upon in his coming paper.

The principal differences between this new form and those nearest to it lie both in coloration and in size and shape of the bill. It is impossible satisfactorily to express these differences in the name of the subspecies, so a minor characteristic which can easily be expressed, has been featured in the designation. The tail averages a little shorter than in stephensi, and is shorter compared with the wing than in the other forms approaching it, hence the name brevicauda. A geographic designation would have been preferable, but the most applicable one, that of the type locality, is too clumsy to latinize, though possible to use unaltered for the vernacular name. The type, a breeding bird, comes from the Yolla Bolly Mountains, which lie partly in Tehama County and partly in southern Trinity County, California. The whole area of the breeding range has not yet been determined.

## Passerella iliaca brevicauda, new subspecies

Yolla Bolly Fox Sparrow

Type.—Female adult, no. 23924, Museum of Vertebrate Zoology; ½ mile south of South Yolla Bolly Mountain, in Trinity County, California; August 7, 1913; collected by A. C. Shelton and George Stone; original number 385.

Range.—Breeding on the higher elevations of the Yolla Bolly Mountains, which lie in southern Trinity and northwestern Tehama counties. In all probability this is the race reported as breeding on Mount Sanhedrin in the northern part of Lake County. Winters south as far as southern California.

Distinguishing characters.—Very large-billed race, closely approaching Passerella iliaca stephensi, but head, including aural region, neck, back, and spots on breast, decidedly brownish, the back being nearly fuscous brown, instead of the mouse gray of stephensi. The color of the back of brevicauda is the exact match of that seen in many individuals of Pipilo c. crissalis from central California. The size of brevicauda is about the same as stephensi, the only important difference in measurements being that of the tail, which averages a little shorter than that of stephensi, and which is also shorter, relatively, as compared with the wing. Measurements of the type specimen are as follows (measured by H. S. Swarth): Wing 81.5; tail 80.5; culmen 14.8; depth of bill 14.0; width of bill 12.0; tarsus 25.0; hind toe and claw 18.0; middle toe and claw 23.0.

San Francisco, California, May 10, 1918.