

# Twelfth in the Fuertes print Series

[The original painting was reproduced in Bird-Lore, Volume XV, Number 2, March-April, 1913. The accompanying text is reprinted (slightly rearranged) in its entirety, less the migration timetables.]

## Notes on the Plumages of North American Sparrows

By FRANK M. CHAPMAN

**A**LTHOUGH CHAPMAN herewith states that eight races of *Passerella iliaca* have been described, the number at that time (1913) was actually ten. *P.i. annectens* had been described by Ridgway in 1900, and *P.i. sinuosa* by J. Grinnell in 1910. Typically, Chapman chose to list only those races sanctified by inclusion in the most recent A.O.U. Check-List (3rd Edition, 1910) and neither was in it.

**Fox Sparrow** (*Passerella iliaca iliaca*, Fig. 1). The nestling Fox Sparrow is much like the adult in general appearance, but is more streaked below and the head shows no trace of gray, being of essentially the same color as the back. At the postjuvinal molt, the wing and tail-feathers are retained, the body feathers shed, and the young bird now resembles the adult.

There is apparently no marked spring molt, and the slightly grayer color of the breeding plumage is due to wear.

The Fox Sparrows, although not so widely distributed during the breeding season, are subject to even more pronounced racial variations in color than are the Song Sparrows. Eight geographical varieties have been described, the more pronounced of which are figured in the frontispiece. Their ranges are given as follows in the 1910 edition of the A O.U. 'Check-List':

**Fox Sparrow** (*Passerella iliaca iliaca*). Fig. 1.

*Range*.—North America. Breeds in Boreal zones from tree limit in northeastern Alaska, northern Mackenzie, central Keewatin, northern Ontario (Moose Factory), and northern Ungava, south to central Alberta, northern Manitoba, southern Keewatin, Magdalen Islands, and Newfoundland; winters from lower Ohio and Potomac valleys (occasionally farther north) to central Texas and northern Florida; casual on the coast of southern Alaska and in California.

**Sooty Fox Sparrow** (*Passerella iliaca fuliginosa*). Fig. 2.

*Range*.—Northwest coast strip. Breeds on the coast of British Columbia, Vancouver Island, and northwestern Washington; winters south along the coast to San Francisco, California.

**Thick-billed Fox Sparrow** (*Passerella iliaca megarhyncha*) Fig. 3.

*Range*.—Mountains of California. Breeds in Transition Zone on both slopes of the Sierra Nevada from Mt. Shasta to Mt. Whitney; winters in southwestern California; casual in Marin County.

**Shumagin Fox Sparrow** (*Passerella iliaca unalaschcensis*). Fig. 4.

*Range*.—Unalaska Island, Alaska Peninsula, and Shumagin Islands; winters south to northern California.

**Kadiak Fox Sparrow** (*Passerella iliaca insularis*).

*Range*.—Alaska coast strip. Breeds on Kadiak Island and on the coast of Prince William Sound south to Cross Sound, winters along the coast to southern California.

**Townsend's Fox Sparrow** (*Passerella iliaca townsendi*)

*Range*.—Coast of southeastern Alaska. Breeds on the coast and islands from Cross Sound to Dixon Entrance, winters south to Humboldt County, California.

**Slate-colored Fox Sparrow** (*Passerella iliaca schistacea*)

*Range*.—Rocky Mountain region of United States. Breeds in Transition Zone from interior of British Columbia and northwestern Montana south to the mountains of Lassen and Modoc Counties, northeastern California, to the White Mountains of eastern California, and to central Colorado, winters south to southwestern California, Arizona, and New Mexico, and east to Kansas.

**Stephens' Fox Sparrow** (*Passerella iliaca stephensi*).

*Range*.—Southern California. Breeds in the Tejon, San Gabriel, San Bernardino, and San Jacinto Mountains.

The Fifth Edition of the Check-List (1957) lists no less than 18 subspecies for Fox Sparrow, reflecting the splitting of the species that resulted from more intense studies of specimens in North American collections. Actually, the Check-List followed the recommendations of H. S. Swarth in his study of

the genus *Passerella* (1920: *Univ. Calif. Publ. Zool.* 21, 4: 75-216). Swarth recognised no less than 16 races, six from coastal Alaska alone, and in 1946 Oberholser added a seventh, *zaboria*, from the Alaskan interior. Two other races had been added to Swarth's list of 1920—*olivacea* by J. Aldrich in 1943, and *swarthi*, by Behle and Selander in 1951. One other race, *mariposae*, on Swarth's list, was omitted from the 5th Edition, as was an earlier one, *meruloides* (Vigors), now considered indistinguishable from *annectens* but less clearly described. Thus the list stands at 18.

The most useful discussion of these races will be found in Bent, A.C., Ed. 1968. *Life Histories of North American Cardinals, Grosbeaks, etc.*, Bull. 237, Part III, U.S.N.M., Washington, D.C. 1372-1434. In their species account, L. M. Terrill and O. A. Austin, Jr., place the various races into three groups, the *iliaca* (bright reddish and gray) eastern races, the *unalaschcensis* (reddish, darker northward, less gray) coastal Alaska group, and the *schistacea* (grayish, grayer southward) mountaintop group. The groupings are as follows:

“ <i>iliaca</i> ”	“ <i>unalaschcensis</i> ”	“ <i>schistacea</i> ”
<i>iliaca</i>	<i>unalaschcensis</i>	<i>schistacea</i>
<i>altivagans</i>	<i>insularis</i>	<i>megarhyncha</i>
<i>zaboria</i>	<i>sinuosa</i>	<i>stephensi</i>
	<i>annectens</i>	<i>brevicauda</i>
	<i>townsendi</i>	<i>fulva</i>
	<i>fuliginosa</i>	<i>canescens</i>
		<i>olivacea</i>
		<i>swarthi</i> .
		<i>monoensis</i>

COMMENTING ON the subspecific identities of the species, Kenneth C. Parkes (*pers. comm.*) adds, “It is quite apparent that *Passerella iliaca* must have the most extreme variations in bill size and shape of any emberizine, certainly in North America and probably in the world. Thus two named subspecies will sometimes be very similar in color . . . and yet differ radically in bill size and shape (also bill color). If one had to go by color alone, one might want to recognize only two-thirds or so of the presently recognized races, and if by bill, perhaps one-half. But with those two factors varying in different combinations, and with color actually being a composite of back, tail, and face color, etc., I doubt that anyone

would, upon seeing the material, recognize a significantly fewer number [of races] than the A.O.U. did in 1957. Admittedly few of these can be recognized in the field—nor should they be—except by someone with a good knowledge of variation in this species. But because of the really conspicuous differences in bill shape superimposed on the color differences, one could quite easily, in the field, sort Fox Sparrows into more categories than Terrill and Austin. For example, I would not try to tell apart, in the field, *P. i. iliaca* and *P. i. zaboria*, under most circumstances, where their migrations overlap. Yet *altivagans*, which Terrill and Austin put in this same eastern group, is a quite different-looking bird, and any of us in the East who saw an *altivagans* in the field would know that it wasn't good old *P. i. iliaca* that we grew up with.”

“There is another, rather interesting point in connection with the subspecies of *P. iliaca*, notably those of the Alaskan and British Columbian coasts. As Swarth showed (and mapped) *op. cit.*, these races show a classical, textbook case of leap-frog migration in that the northernmost races winter farthest south, the next northernmost do not migrate quite as far, and so on, until the birds of Vancouver Island and vicinity, which appear to be fairly sedentary, as the ones from California certainly are. Thus in Southern California, one would expect the local breeding race in winter, plus wintering individuals of the northernmost breeding races, but probably not those breeding at intermediate latitudes. One could hardly work out this migration pattern by populations unless there were a good subspecific differentiation so that wintering birds could be assigned with confidence to breeding populations. And you could wait 100 years for enough data from banding to establish it.”

Although the vernacular names for races are no longer in fashion, all eight of the races listed by Chapman survived to the 5th Edition, in which the range delineations were expanded. The four races selected by Fuertes for this plate are among the most distinctive, and represent members of all three Swarth-Austin groupings.

Other pertinent citations include Linsdale, J., 1928 *Univ. Calif. Publ. Zool.* 30: 392, Grinnell, J., and A. H. Miller, 1944 *Distribution of the Birds of California, Pac. Coast Avifauna* 27, Cooper Ornith. Club, Berkeley, 608 pp., and Behle, W. H. and R. K. Selander, 1951. *Jour. Wash. Acad. Sci.* 41: 361-367).

Helpful contributions to this commentary, in addition to those of Parkes above, were made by Robert M. Zink, for which our thanks.

—Robert Arbib



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Louis Agassiz Fuentès