

Tenth in the Fuertes print series

[The original painting was published as the frontispiece of *Bird-Lore*, Vol. XV, Number Four, July-August, 1913. There were two texts accompanying the painting, one on the migration of these sparrows by W.W. Cooke, with extensive migration time-tables (not reprinted) and one on plumages by W. DeW. Miller. The taxonomy is updated below.]

The Migration of North American Sparrows

TWENTY-THIRD PAPER

Compiled by Prof W.W. Cooke, Chiefly from Data in the Biological Survey

BLACK-THROATED SPARROW

The individuals occupying the southeastern part of the range of the Black-throated Sparrow from central Texas to Northern Mexico,—typical *Amphispiza bilineata*—remain so commonly in winter at the northern limit of the breeding range that no migration dates can be assigned to those individuals that move south in the winter. The birds from farther west in New Mexico, Arizona and California—separated as the subspecies *A.b. deserticola*, or the Desert Sparrow—are true migrants, wintering along the southern boundary of the United States.

BELL'S SPARROW

The Bell's Sparrow is a non-migratory species, inhabiting the lower parts of southwestern California and northwestern Lower California.

SAGE SPARROW

The Sage Sparrow has been separated into three forms: The California Sage Sparrow (*Amphispiza nevadensis canescens*),

comprises the most western individuals occupying a small area in east-central California and western Nevada, where they are non-migratory; the Gray Sage Sparrow (*A.n. cinerea*) is limited to the west coast of central Lower California and is non-migratory; the main bulk of Sage Sparrows (typical *nevadensis*) breed from Washington, Idaho and Wyoming to southern Colorado and winter from southern Utah to northern Mexico. The individuals of this form are strictly migratory

LINCOLN'S SPARROW

Lincoln's Sparrow is divided into two races. The typical form breeds from Nova Scotia to Alaska and south to the mountains of Southern California and New Mexico. It winters from the southern United States to Guatemala. The race known as Forbush's Sparrow (*Melospiza lincolni striata*) is restricted in summer to the coast region of Alaska, and migrates as far south as southern Lower California.

Notes on the Plumage of North American Sparrows

TWENTY-SECOND PAPER

By W. DeW. Miller

Swamp Sparrow (*Melospiza georgiana*, Figs. 1 and 2) —The bright cinnamon wings, without white bars, and the tawny brown flanks are the diagnostic features of the Swamp Sparrow. The juvenal (nestling) dress differs from subsequent plumages chiefly in the darker shade of the wings, the coverts lacking the cinnamon of older birds, and in the buffy, black-streaked chest. The resemblance to the young Song and Lincoln's Sparrows is close, but the crown is usually darker.

The first winter plumage is assumed by a complete molt of the body feathers. In this, as in later plumages, the underparts are normally unmarked, but there are frequently a few narrow black streaks on the sides of the breast, rarely extending across the chest. Birds at this stage are often tinged with yellow, particularly about the face. The spring molt involves chiefly the feathers of the crown and throat. In the male, the chestnut can

is assumed, often, however, in the first breeding plumage, streaked with black.

The adult winter plumage, gained by a complete molt in August and September, resembles that of the first winter; but the gray of the head and neck is clearer, and there is usually more chestnut in the crown. (In the figure representing the winter plumage, there is too abrupt and great a contrast between the dark shaded breast and the white belly.) In the fully adult breeding plumage, acquired by a partial spring molt, as in younger birds, the chestnut cap is pure and extensive.

The female resembles the male in all plumages, but the crown is usually streaked with black and with an indication of the gray median stripe, occasional birds, however, scarcely differ from the adult male.



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John Cassin Quortz

Lincoln's Sparrow (*Melospiza lincolni*, Fig. 3)—Few birds present so little variation in plumage as does this species. Not only are the sexes alike at all seasons, but even the juvenal plumage bears a general resemblance to that of the adult. There is no spring molt, and the only effect of wear is a slight fading of the browns and buffs, bringing the black streaks into sharper contrast. In juvenal dress this species closely resembles the young of the Swamp and Song Sparrows. Even when adult, its general appearance is that of a Song Sparrow, but its buff malar stripe and breast band, and the finer streaking of the latter, serve to distinguish it.

Lincoln's Sparrow is distributed over the greater part of North America. A local race known as Forbush's Sparrow (*M.l. striata*) is confined to the Pacific coast region, breeding in Alaska and wintering south to southern Lower California. It is slightly smaller and more heavily streaked than the common form.

Black-throated Sparrow (*Amphispiza bilineata*, Fig. 4).—In juvenal plumage there is an entire absence of the black face and throat, but the white line over the eye is present; the back, which is browner than in the adult, is obscurely, and the breast more distinctly streaked with grayish black or dusky; the greater wing-coverts are broadly edged with brownish buff.

The black-throated adult plumage is assumed at the first (postjuvenal) molt, and the only effect of wear and fading on the winter dress is the gradual disappearance of the brownish buff shading of the flanks and crissum. The female, in all plumages, is indistinguishable from the male.

The typical form of this species, the Black-throated Sparrow proper (*A.b. bilineata*), is the easternmost form of the genus, ranging from northeastern Mexico north into northern middle Texas. It is characterized by the large size of the white spots on the outer tail-feathers.

The Desert Sparrow (*A.b. deserticola*) inhabits the arid plains from western Texas to California, north to Nevada, Utah, and Colorado, and south into northern Mexico. A third race, slightly smaller and browner, is confined to Mexico.

Sage Sparrow (*Amphispiza nevadensis*, Fig. 5).—The young of this species is conspicuously streaked both above and below with grayish black. At the postjuvenal molt it becomes practically indistinguishable from the adults. There is apparently no spring molt, and the summer plumage scarcely differs from that of winter. The female resembles the male in coloration.

Three races of the Sage Sparrow are recognized. The typical, that is, the first-described form (*A. n. nevadensis*), breeds "from central Washington, central Idaho and central Wyoming, south to southeastern California and southern Colorado." This is much the largest of the three races. The Gray

Sage Sparrow (*A. n. cinerea*) inhabits the western coast of Lower California. The California Sage Sparrow (*A. n. canescens*) is confined to "Owens Valley and adjacent areas in eastern California and extreme western Nevada."

Bell's Sparrow (*Amphispiza belli*, Fig. 6).—Bell's Sparrow is found in the "valleys and foothills of California, west of Sierra Nevada, and Colorado Desert from about latitude 38° south to northwestern Lower California." This species is closely related to the Sage Sparrow, differing in much darker coloration, but agreeing in the pattern, molts and sequence of its plumages.

The taxonomy of these five (now four) sparrow species has been revised somewhat in the intervening years since 1913.

Black-throated Sparrow is still *Amphispiza bilineata*, but in addition to the races mentioned—*bilineata* of Texas and the more westerly *deserticola*—another race, *opuntia*, was described by Burleigh and Lowery in 1935. It is a resident of an area east of that occupied by *deserticola* and less migratory than that race. Four other forms have more recently been named, all residents of Baja California or its islands. They are named *bangsi*, *belvederei*, *tortugae* and *carmenae*. There are three additional races from Mexico outside the A.O.U. Check-list area: *cana*, *pacifica*, and *grisea*.

Bell's Sparrow has disappeared as a species name although its name *Amphispiza belli* is now applied to the Sage Sparrow. The A.O.U. Check-list of 1957 lists five races of Sage Sparrow: *nevadensis*, *canescens*, *belli*, *clementeae* and *cinerea*. Distribution of these races is not quite as W. DeW. Miller stated in 1915 since *A.b. belli* actually occupies coastal California from Marin County south. *A.b. clementeae* is an endemic race of San Clemente Island, *cinerea* of lower Baja California.

The nomenclature of Lincoln's Sparrow is also somewhat altered. The Check-list lists three races, but *striata* is not one of them; that name has been preempted by the name *gracilis*. A third race *alticola*, was added by A.H. Miller and McCabe in 1935 for a western montane form, one that has been questioned as poorly marked and highly variable.

The Cooke paper omitted mention of Swamp Sparrow and its races, but three are now recognized: the paler northern race *ericrypta*, the more southerly race *georgiana*, and a darker race, *nigrescens*, confined to a small area centered on Delaware Bay. None of these races is well defined, and in areas of adjacent breeding ranges intergrades are frequently found. Thanks to Richard E. Banks for review of this summary.

—Robert Arbib