

TWO NEW RACES OF BIRDS FROM THE LOWER COLORADO RIVER VALLEY

By A. J. VAN ROSSEM

During the past year and a half Dr. Loye Miller and I have made field trips at frequent intervals to southern and western Arizona. The objectives have been to collect for comparative purposes adequate series of birds from that region in fresh, un-abraded plumage, and to work out certain details of distribution as part of a program of intensive study of the biota of the Gulf of California.

Through our investigations a number of significant facts have become apparent, some decisively so whereas others will require further substantiation. The lower Colorado River valley has assumed even a more definite aspect as a sharply defined sub-faunal area than formerly was realized; the Williams-Big Sandy-Santa Maria drainage basin, although geographically adjacent to the Colorado, is abruptly set off from it avifaunally. The relationships of the Pajaritos and Baboquivari mountains lie to the southward rather than with the Santa Ritas and other easterly ranges. The Harquahala Mountains in the western desert prove to be an Upper Sonoran "island" of considerable extent with at least two and possibly four endemic races. Finally, the currently accepted ranges of a number of races must be readjusted.

In past and present systematic studies of the birds of the northern portion of the Gulf area in Mexico I have been handicapped at times because of distributionally and seasonally unsatisfactory Arizona material, particularly with regard to species resident in desert regions. The plumage of desert birds often changes considerably within a short time after the annual molt and as early as the following March may be sand-cut and bleached to a truly surprising degree. Fresh, un-abraded material now makes possible the definition of a number of races, the existence of which has been suspected for some time. Descriptions of these have been held in abeyance until observed differences could be verified by proper comparison. In the present paper two more Colorado River differentiates are added to the already impressive number which are essentially restricted to that sub-faunal area or district. Both serve to emphasize, too, the sharp division between the Colorado and the Williams drainage immediately to the eastward.

Toxostoma dorsale coloradense, new subspecies

Pallid Crissal Thrasher

Type.—Adult female, no. 10826 Dickey Coll., taken at Brawley, Imperial County, California, altitude minus 113 feet, December 25, 1910; collected by A. J. van Rossem.

Subspecific characters.—Paler than *Toxostoma dorsale dorsale* Henry. Upper parts grayish Drab instead of Deep Mouse Gray or Hair Brown; under tail coverts, Mikado Brown instead of Verona Brown; under parts paler and more buffy (less brownish) gray.

Range.—The lower Colorado River valley from northeastern Baja California and northwestern Sonora north, including the Imperial and Coachella valleys, to the lower Virgin River in southeastern Nevada.

There is no color plate in Ridgway which, to my eye, reasonably matches the underparts of the Crissal Thrasher. Perhaps Light Grayish Olive to Grayish Olive with a buffy tinge is an approximation of the pectoral region of *coloradense*, and Grayish Olive to Deep Grayish Olive with a brownish tinge is an equally good (or bad) approximation for *dorsale*.

Fresh-plumaged specimens of both races are grayer and darker, and conversely, worn specimens are browner and paler. However, the comparative racial characters remain evident until March or April, or until the plumage becomes too shredded (usually by April) to be of any comparative value. This species, like most thrashers, is prone to post-mortem "foxing," although not to the extent seen in *Toxostoma redivivum*.

While there is some individual variation in color in *dorsale*, I cannot be sure with the material at hand whether there are significant geographic trends. Possibly by coincidence the two darkest and brownest individuals examined are from New Mexico and the darkest and grayest are from the far-western localities of the Harquahala Mountains and the Williams River. These latter I have difficulty in separating from *trinitatis* Grinnell of the Trinidad Valley of Baja California. Grinnell, be it noted, separated *trinitatis* not by comparison with *dorsale* but specifically with the paler and more brownish race here named *coloradense*! Possibly *trinitatis* has a "split" range but I cannot develop any definite thesis without more abundant material from the Harquahalas and Trinidad Valley. It may further be noted that some other Williams and Harquahala species show this same curious darkness and grayness in close resemblance to north-western Baja California races, from which they are completely cut off by the interposition of pale, buffy races of the lower Colorado River valley.

Specimens examined.—*Toxostoma dorsale dorsale*, 39 from New Mexico (Alamogordo; Carlsbad), Arizona (San Simón Valley; Huachuca Mountains; Santa Rita Mountains; Santa Catalina Mountains; Tucson; Fort Lowell; Continental; Baboquivari Mountains; Harquahala Mountains; Williams River; Salome) and Sonora (San José de Guaymas; Kino Bay).

T. d. coloradense, 23 from Nevada (St. Thomas; Clark County, opposite Fort Mojave), Arizona (Yuma), California (Palm Springs; Mecca; Thermal; Indian Wells; Potholes; Laguna Dam; Brawley; Bard; Neighbors), and Baja California (boundary at Mexicali). [Recorded from 25 miles south of Mon. 205 on the Colorado River, Sonora, but no specimens examined in the present connection].

Pipilo aberti dumeticolus, new subspecies

Western Abert Towhee

Type.—Male of the year in complete, new, fall plumage, no. J-1429 Dickey Coll., taken 3 miles northwest of Calexico, Imperial County, California, altitude minus 3 feet, October 13, 1921; collected by A. J. van Rossem.

Subspecific characters.—Entire plumage generally paler and redder than in *Pipilo aberti aberti* Baird of Arizona. Upper parts in fresh plumage Snuff Brown instead of Hair Brown; under parts Avellaneous with a distinct cinnamon tinge instead of Fawn Color; chin and throat with dark streaking narrower and usually with only the extreme point of the chin dusky. Size generally similar to *aberti* but tail shorter and bill less deep at base.

Range.—The Colorado River valley from northwestern Sonora and northeastern Baja California north, including the Imperial and Coachella valleys to the Virgin River valley in extreme southeastern Nevada and southwestern Utah.

The lighter, more russet and cinnamon tones which characterize the new race, as compared with the more grayish and pinkish tones of *aberti*, are most pronounced in fresh plumage but are apparent in most specimens even into March and April. Comparison of newly collected specimens with skins taken as long as thirty-seven years ago shows that the latter have "foxed" to a perceptible degree, although not to the extent that racial color characters are entirely obscured. For example, specimens of *aberti* taken in the fall and winter of 1908 at Fort Lowell remain distinctly "*aberti*" in color, even in comparison with recent *dumeticolus*.

The range of *aberti*, like that of *Toxostoma dorsale dorsale*, includes the Williams-Santa Maria-Big Sandy drainage, and specimens from that area show no intermediacy whatever toward *dumeticolus* of the Colorado.

Extreme and average measurements in millimeters

Males				
	Wing	Tail	Culmen	Depth of bill at base
16 <i>aberti</i>	90.0-94.5 ¹ (92.1)	113.0-120.5 (116.0)	14.7-16.3 (15.2)	10.0-11.0 (10.3)
39 <i>dumeticolus</i>	89.0-95.0 (91.7)	106.0-116.0 (110.6)	14.7-16.6 (15.3)	9.1-10.5 (9.8)
Females				
	Wing	Tail	Culmen	Depth of bill at base
13 <i>aberti</i>	84.0-91.0 (87.8)	106.0-113.0 (110.0)	13.7-16.0 (14.7)	9.7-10.6 (10.2)
24 <i>dumeticolus</i>	82.5-89.0 (86.1)	103.5-111.0 (106.8)	14.0-15.8 (14.8)	9.0-10.1 (9.7)

¹ One specimen 98.0, not included.

Specimens examined.—*Pipilo aberti aberti*, 29 from Arizona (Tucson; Fort Lowell; Wickenburg; upper Santa Maria River; Williams River).

P. a. dumeticolus, 70 from Utah (Washington; St. George), Nevada (opposite Fort Mojave; St. Thomas; Searchlight), California (Thermal; Mecca; Indio; Palm Springs; Indian Wells; Calexico; Fort Yuma; Potholes; Bard; Neighbors), Arizona (Yuma), Baja California (La Bomba), and Sonora (San Luis).

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