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THE NORTH AMERICAN FORMS OF *ASTRAGALINUS*  
*PSALTRIA* (SAY).

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Six geographical races of *Astragalinus psaltria* (Say) were recognized by Mr. Ridgway in his recent treatment of the genus\*, as follows:

*Astragalinus psaltria psaltria* (Say).—Lower California and southwestern United States from Texas and Colorado to California.

*Astragalinus psaltria arizonæ* (Coues).—Northwestern Mexico and southwestern border of the United States from Texas to California, north to Colorado.

*Astragalinus psaltria mexicanus* (Swainson).—Mexico, except extreme southern and northwestern portions; north to Texas, New Mexico and Colorado.

*Astragalinus psaltria croceus* (Jouy).—Southern Mexico to Panama, casually to Colombia and Ecuador.

*Astragalinus psaltria jouyi* (Ridgway).—Yucatan.

*Astragalinus psaltria columbianus* (Lafresnaye).—Costa Rica to Venezuela and Peru.

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\*Birds of North and Middle Amer., I, 1901, pp. 114-121.



With the last three we have no present concern, but the others will bear further elucidation. In the first place, the status of *Astragalinus p. arizonæ*, as currently accepted, has been very properly challenged by Mr. Brewster\* and Mr. Grinnell†, as well as by Mr. Ridgway‡. Furthermore, the occurrence of all three forms—*psaltria*, *arizonæ* and *mexicanus*—in Colorado during the breeding season is alone sufficient to arouse suspicion.

The type locality of *psaltria* is the Arkansas River, near 105° west longitude (between Pueblo and Cañon City), Colorado§; and a series of summer males from Colorado Springs, Colorado, which for purposes of comparison may be considered practical topotypes, exhibits all gradations from the green-backed to the black-backed forms, representing thus *psaltria*, *arizonæ*, and *mexicanus*—all breeding at the same place! These differences are, however, in this case, quite certainly the result of age; and this conclusion is fortified by the occurrence of similar variations well within the range of the so-called black-backed form *mexicanus*,|| in Texas, New Mexico, and even Mexico. Males breed in the green-backed plumage which probably is the condition of the first year; and one or two, possibly three, more seasons are required to complete the fully adult black dress. Say's *psaltria* was based on one of these immature green-backed specimens which are indistinguishable from individuals of the constantly green-backed form found in California; but notwithstanding this, the name must be used for the black-backed Colorado bird. Fully adult individuals from this latter state, that is, those with the black upper surface, seem, however, not to be proportionately so common, at least in collections, as the similar plumage of the Mexican bird, and moreover, have usually some slight mixture of olive green on the upper parts, though by far the greater number of Mexican birds have a similar trace of olive; but both these apparent differences may be due either to fortuitous selection in collecting specimens—as, for instance, appears to be the case with adult males of *Sporophila*

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\*Bull. Mus. Comp. Zool., XLI, 1902, p. 136.

†Condor, 1902, pp. 115–116.

‡Birds of North and Middle Amer., I, 1901, p. 116.

§Say, Long's Exped. Rocky Mts., II, 1823, p. 40.

||Swainson, Philos. Mag., N. S., I, 1827, p. 435 (Real del Monte, Hidalgo, Mexico).



*morelleti* from the Lower Rio Grande—or to a tendency toward intergradation with the green-backed form found farther to the westward. Moreover, there seem to be no other characters to separate the birds of Colorado (*psaltria*) from those of Mexico (*mexicanus*). From these facts it therefore is apparent that *Astragalinus p. mexicanus* is the same as *Astragalinus p. psaltria*.

The name *arizonæ*\* was based on New Mexico birds in the parti-colored immature plumage, and is undoubtedly a synonym of *psaltria*. The type (No. 37,091, U. S. Nat. Mus.) came from near Fort Wingate, New Mexico; and another specimen taken at the same time (June 28) is almost pure black above. In treating this form, Mr. Ridgway curiously enough overlooked the type and the two other specimens taken simultaneously by Dr. Coues, stating that none of these were in the collection of the United States National Museum†. New Mexico, with the exception of its extreme southwestern corner, seems to be inhabited solely by the black-backed bird *psaltria*.

All adult males from Lower California, California, Nevada, Arizona, together with those we have seen from Utah have the back olive green, apparently never assuming the black plumage of true *psaltria*; and rarely have even a mixture of black in the back or auriculars, such individuals indicating probably, as Mr. Brewster suggests, merely an aberrant tendency of this green-backed form. True intermediates doubtless do occur, however, in northwestern Mexico.

From what has been said in the foregoing paragraphs it may be premised that there are but two forms of *Astragalinus psaltria* in North America north of southern Mexico, and that one of these is unnamed. They may be distinguished as follows:

***Astragalinus psaltria psaltria* (Say).**

*Fringilla psaltria* Say, Long's Exped. Rocky Mts., II, 1823, p. 40.

*Carduelis mexicana* Swainson, Philos. Mag., N. S., I, 1827, p. 435.

*Fringilla melanoxantha* Lichtenstein, Preis-Verz. Mex. Vög., 1830, p. 2.

*Fringilla texensis* Giraud, Sixteen Species North Amer. Birds, 1841, pl. 5, fig. 1.

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\*Coues, Proc. Acad. Nat. Sci. Phila., 1866, pp. 82, 83.

†Birds of North and Middle Amer., I, 1901, p. 116, footnote.



*Chrysomitris* (*Pseudomitris*) *mexicanus* var. *arizonæ* Coues, Proc. Acad. Nat. Sci. Phila., 1866, pp. 82, 83.

*Subspecific characters*.—Upper parts, including wings and tail, black, the wings with broad white edgings, the tail with most of its feathers extensively white basally; entire under surface yellow.

*Geographic distribution*.—Mexico, excepting the northwestern and extreme southern portions; Texas, New Mexico, and Colorado.

***Astragalinus psaltria hesperophilus*, subsp. nov.**

*Astragalinus psaltria* Auct., nec Say.

*Subspecific characters*.—Similar to *Astragalinus psaltria psaltria*, but ear-coverts, sides of neck, with back, nape, and rump, in fully adult plumage, olive green instead of black.

*Geographic distribution*.—Southwestern United States and northwestern Mexico, from California and Lower California to Utah, Arizona, and extreme southwestern New Mexico.

*Description*.—Type, adult male, No. 139,158, U. S. National Museum (Biological Survey Collection); San Bernardino, California, December 28, 1890; Dr. A. K. Fisher. Pileum, and upper tail-coverts black, the latter with olive green edgings; remainder of upper parts olive green with narrow dusky or blackish shaft streaks; tail black, the inner webs of the three outer pairs of rectrices largely white, and all the feathers narrowly margined externally with pale grayish; wings black, with a large white speculum at the base of the primaries, the tertials broadly bordered with white, the other quills narrowly edged with grayish and olivaceous; lesser and median wing-coverts edged with olive green; greater coverts broadly margined with greenish white; sides of head and neck olive green; entire under surface deep primrose yellow, paler on the crissum, whitish on the abdomen, and shaded with olivaceous on sides and flanks; lining of wing mixed gray, white, and black. Length of wing, 65.5; tail, 43; exposed culmen, 9; tarsus, 15; middle toe, 10 mm.





Oberholser, Harry C. 1903. "The North American forms oi *Astragalinus psaltria* Say." *Proceedings of the Biological Society of Washington* 16, 113–116.

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