

III. PRESUMED HYBRIDS OF *H. leucobronchialis* WITH *H. chrysoptera*.

CHARACTERS. — Entirely white beneath (except on sides), as in *H. leucobronchialis*, but with black auriculars of *H. chrysoptera*.

(1) An adult ♀ (?) obtained at Sing Sing, N. Y., July 24, 1881, by Dr. A. K. Fisher (collector's No. 1208). Cf. Brewster, Bull. Nutt. Orn. Club, VI, p. 219.)

(2) An adult ♀ (?) obtained at Sing Sing, N. Y., July 24, 1881, by Dr. A. K. Fisher. (Cf. Fisher, Bull. Nutt. Orn. Club, VI, p. 245.)

IV. PRESUMED HYBRIDS BETWEEN *H. chrysoptera* AND *H. pinus*  
(= '*H. lawrencei* HERRICK').

CHARACTERS: Black or gray throat and auriculars of *chrysoptera*, with rest of head and the lower parts yellow, as in *pinus*; upper parts olive-green as in *pinus*. Wing-bands yellow or white.

a. *Wing-bands white.*

(1) The type, an adult ♂, obtained at Passaic, N. J., May, 1874, by Harold Herrick. (Cf. Herrick, Pr. Phil. Ac. Nat. Sci. 1874, p. 220, pl. 15.)

(2) An adult ♂ from Hoboken, N. J., taken in the spring of 1876. (Cf. Herrick, Bull. Nutt. Orn. Club, II, p. 19.)

b. *Wing-bands yellow.*

(3) An adult ♀ taken at Highland Falls, N. Y., July 7, 1879, by Dr. Edgar A. Mearns (No. 4667, Coll. W. Brewster). This specimen presents nearly the characters that would be looked for in the female of *lawrencei*; the throat and cheek-markings are those of *chrysoptera* (female), while the remainder of the plumage is colored nearly as in *pinus*, the wing-bands, however, are yellow, instead of white, and the back is not purely olive-green." (Cf. Brewster, Bull. Nutt. Orn. Club, VI, p. 220.)

## ON JUNCO CINEREUS (SWAINS.) AND ITS GEOGRAPHICAL RACES.

BY ROBERT RIDGWAY.

An examination of a very large series (78 specimens) of this species makes apparent some very interesting facts. It shows

that *J. cinereus* proper must be excluded from the list of North American birds, all the specimens from within the borders of the United States which have been referred to this form being very different, belonging in reality to an unnamed geographical race. It is with extreme reluctance that I venture to describe an additional form of this difficult genus, but the facts before me are so plain that I cannot well avoid doing so.

*J. cinereus*, as at present known, is divided into three strongly marked races, between two of which (*dorsalis* and the new form) we have evidence of intergradation in a small proportion of intermediate specimens. In the case of the new form and true *cinereus* intergradation is assumed, but is hardly less certain.

The geographical distribution of the three races is, in the main, quite distinct: *J. cinereus* belonging to the eastern mountain districts of Mexico (from the Sierra Madre of Chihuahua to the high regions of Vera Cruz), *J. cinereus dorsalis* to the mountains of New Mexico and Eastern Arizona (White Mountains and Willow Springs), while *J. cinereus palliatus*, as I propose to name the new form, belongs exclusively, so far as known, to the mountains of Central and Southern Arizona (Mt. Graham, the Santa Rita range., etc.), but probably extends southward along the more western mountain ranges of Mexico.

The three races may be distinguished as follows:—

*a. Outer web of tertials and some of the wing-coverts rufous.*

1. *J. cinereus*. Upper parts of head and neck, with rump, dark gray inclining to state-color, the rump often tinged with olive; lores deep black.

2. *J. cinereus palliatus*. Upper parts of head and neck, with rump, clear ash-gray; lores grayish black.

*b. Outer surface of wings entirely ash-gray.*

3. *J. cinereus dorsalis*. Upper parts of head and neck, with rump clear ash-gray, and lores grayish black, as in *J. cinereus palliatus*.

The type of *J. cinereus palliatus* is No. 68817, U. S. Nat. Mus., ♂ ad., Mt. Graham, Arizona, Sept. 19, 1874; H. W. Henshaw collector.