

buff (V-shaped) on each feather, more apparent on the outer rectrices. Lesser wing-coverts dark grayish-brown, distinctly bordered with dull ochraceous; middle coverts with the concealed portion brownish-gray; this succeeded by a paler grayish shade, the most of the exposed portion being opaque velvety-black, forming a distinct broad band; secondaries metallic dark bluish-green, changing to blue and violet, this succeeded by a subterminal band of opaque velvety-black, about .25 in width, and this by a terminal band of pure white of the same width; outer webs of the two lower tertials opaque black, the rest grayish-brown, more brown on outer webs; primaries brownish-slate, with slightly paler edges. Bill dusky (probably dark olivaceous in life); legs and feet light yellowish-brown (probably orange in life). Wing, 9.00; tail, 3.65; culmen, 1.75; greatest width of bill, .68; depth of maxilla, through base, .55; tarsus, 1.40; middle toe, 1.70. [Described from No. 20,319 U. S. Nat. Mus.]

Unlike the somewhat similar species from Mazatlan (*A. aberti*), as well as the female of *A. boschas* and both sexes of *A. fulvigula*, the whole throat is densely streaked, like the neck. The entire lining of the wing, with the axillars, is pure white, as in allied species.

Gray's *Hand-list* quotes, under *A. boschas*, an "*A. freycineti*, Bp.," with the locality "Sandwich I." standing opposite. No indication is given, however, as to where Bonaparte's bird is described, and I have been unable to find any further clue. Should the locality of "*A. freycineti*" be the Sandwich Islands, it is very probable that this is the same species.

The female of *A. wyvilliana* scarcely needs comparison with that of *A. boschas*. It is much smaller, the colors altogether darker, the speculum green instead of violet, and preceded by a wide black instead of a wide white bar. The white ocular ring is also a peculiar feature.

NOVEMBER 18, 1878.

DESCRIPTION OF TWO NEW SPECIES OF BIRDS FROM COSTA RICA, AND NOTES ON OTHER RARE SPECIES FROM THAT COUNTRY.

By ROBERT RIDGWAY.

A small collection of birds brought from Costa Rica by Mr. José C. Zeledon includes several exceedingly rare and interesting species, among which may be mentioned a young male of *Carpodectes nitidus*, a second specimen of *Porzana cinereiceps*, Lawr., the recently described "*Zonotrichia*" *vulcani*, and *Phœnoptila melanoxantha*, besides *Pyrgisoma capitalis*, *Panterpe insignis*, *Geotrygon costaricensis*, etc. In addition to the above are the two following, which are believed to be undescribed:—

1.—*THRYPHILUS ZELEDONI* (Lawrence, MS.).

SP. CH.—Wing, 2.50–2.60; tail, 2.15–2.45; bill, from nostril, .48–.50; tarsus, 1.00; middle toe, .62–.65.

Above brownish-slate, becoming more olivaceous on the rump, upper tail-coverts, and tail. Remiges with very indistinct (scarcely observable) darker bars. Tail heavily but somewhat irregularly barred with dusky black, the black bars about as wide as the interspaces. A sharply defined and conspicuous superciliary stripe of white; a wide stripe of brownish-slate (like the crown) along upper half of the auriculars. Chin, throat, cheeks, and lower parts in general grayish-white, with a faint grayish wash across the jugulum, more distinct on the sides of the breast. Flanks, anal region, and crissum light fulvous. Lining of the wing grayish-white. [Type in Mus. R. R.]

This well-marked species, although perhaps most like *T. modestus* (Caban.), is very distinct from that bird. The size is much greater, the plumage altogether grayer, and the bars on the tail broader and more sharply defined. Their characters may be more precisely contrasted, as follows:—

T. modestus.—Wing, 2.30; tail, 2.25–2.35; bill, from nostril, .40–.45; tarsus, .80–.90; middle toe, .52–.58. Above, grayish-umber, becoming gradually more grayish on the pileum. Tail cinnamon-umber, with narrow and rather indistinct bars of blackish less than half as wide as the interspaces. Lower parts buffy-white, without grayish shade across the jugulum; sides, flanks, and anal region, and crissum deep ochraceous. *Hab.*—Highlands of Costa Rica.

T. zeledoni.—Wing, 2.50–2.60; tail, 2.15–2.45; bill, from nostril, .48–.50; tarsus, 1.00; middle toe, .62–.65. Above, brownish-slate, more olivaceous posteriorly. Tail grayish-brown, with broad and sharply defined bars of blackish, equal in width to the interspaces. Lower parts grayish-white, with a distinct grayish shade across the jugulum; flanks, anal region, and crissum light grayish-fulvous. *Hab.*—Atlantic lowlands of Costa Rica.

2.—PSEUDOCOLAPTES LAWRENCII (Ridgway, MS.).

SP. CH.—Wing, 4.15–4.35; tail, 4.15–4.30; bill, from nostril, .50; tarsus, 1.00–1.05; middle toe, .63–.70. Primaries, primary-coverts, greater and middle wing-coverts brownish-black, the first more brownish; both rows of wing-coverts tipped with bright ochraceous. Tufts on sides of neck creamy buff.

Adult: Pileum, nape, and auriculars brownish-black, streaked with rusty-fulvous; nape more conspicuously streaked with light fulvous or buff; a narrow superciliary streak of buff. Back, scapulars, lesser wing-coverts, and tertials ferrugineous, the feathers of the back very indistinctly bordered terminally with dusky. Rump, upper tail-coverts, and tail bright brick-rufous, immaculate. Chin, throat, and sides of the neck creamy-buff, the latter deepest, and immaculate; the throat faintly barred with dusky; jugulum and breast light buff, the feathers bordered with dusky, producing a conspicuously striped appearance—the dusky prevailing laterally, the buff medially; middle of the abdomen plain deep buff. Sides and flanks ferrugineous, considerably lighter than the back; crissum plain rusty-ochraceous. Bill blackish, the gonyes whitish. Feet horn-color (greenish-olive in life). Iris dark brown.

Immature: Similar, but pileum and auriculars plain brownish-black; chin and throat more heavily marked (squamated) with dusky, and sides brighter rufous. Superciliary streak obsolete, except above the auriculars.

Hab.—La Palma and Navarro, Costa Rica (altitude about 3,500–5,000 feet).

The most striking characters of the two known species of this genus may be contrasted as follows:—

P. boissoneaui.—Tufts on side of neck pure white. Primaries and wing-coverts ferruginous-umber. Jugulum faintly squamated with dusky. *Hab.*—New Granada and Ecuador.

P. lawrencii.—Tufts on side of neck creamy-buff. Primaries and wing-coverts brownish-black. Jugulum heavily striped with dusky. *Hab.*—Costa Rica.

The proportions of both species are exceedingly variable, as may be seen from the accompanying table of measurements, and are therefore of no use as specific characters.

The new form (*P. lawrencii*) was also obtained by Mr. A. Boucard at Navarro, Costa Rica, but that gentleman evidently overlooked the more important differences of plumage, though he alludes to the different color of the neck-tufts (*Proc. Zool. Soc. Lond.* 1878, p. 59), adding that he does not “for the present consider this difference sufficient to make another species of it”.

Following is a more detailed description of *P. boissoneaui*, and tables of measurements of both species.

PSEUDOCOLAPTES BOISSONEAUI, Lafr.

SP. CH.—Wing, 3.85–4.65; tail, 3.70–4.60; bill, from nostril, .42–.70; tarsus, .95–1.10; middle toe, .58–.70. Primaries and wing-coverts umber-brown, like the tertials; primary-coverts, dusky. Tufts on sides of neck pure white.

Adult: Pileum, auriculars, nape, and anterior portion of back brownish-black, streaked with pale fulvous, these streaks much broader, and very conspicuous, on the nape and back. Lower part of back, scapulars, and wings ferruginous-umber, the middle and greater coverts tipped with fulvous. Rump, upper tail-coverts, and tail deep brick-rufous, immaculate. A narrow superciliary streak of pale buff. Chin and throat white; neck-tufts pure silky white. Jugulum and breast buffy white, or very pale buff, faintly squamated with dusky, these markings heavier on sides of the breast. Rest of lower parts plain ochraceous-rufous, slightly paler on the middle of the abdomen. Bill black; lower half of mandible whitish.

Young: Pileum and auriculars plain brownish-black; superciliary stripe obsolete, except above the auriculars. Bill wholly black, but somewhat paler on gonys.

P. boissoncauti.

.....	G. N. L.	Juv.	Bogota, Columbia	.....	4.15	4.20	0.42	.....	.....
32800	G. N. L.	ad.	.....do	.....	3.85	4.00	0.62	1.00	0.60
47076	U. S.	ad.	.....do	.....	3.90	3.70	0.70	0.95	.....
.....	G. N. L.	ad.	.....do	.....	4.50	4.55	0.48	0.95	0.58
.....	G. N. L.	ad.	.....do	.....	4.50	4.40	0.48	1.00	0.60
55272	G. N. L.	ad.	Quito, Ecuador	.....	4.10	4.00	0.60	1.00	.....
63292	U. S.	ad.	.....do	.....	4.65	4.30	0.52	1.10	0.62
30945	U. S.	ad.	.....do	.....	4.60	4.60	0.52	1.10	0.70
.....	U. S.	ad.	.....do	.....	4.40	4.50	0.50	1.10	0.65

P. lawrencii.

.....	U. S.	♂♂	La Palma, Costa Rica	.....	4.15	4.15	0.50	1.00	0.70
.....	U. S.	♂♂	.....do	.....	4.35	4.30	0.50	1.05	0.68

CARPODECTES NITIDUS.—A presumed young male of this excessively rare species, from Pacuare, Costa Rica, resembles the adult male, except that the terminal half (of the exposed portion) of the primaries is uniform dusky blackish, while the secondaries have a considerable part of their concealed portion dusky, the amount decreasing toward the inner ones, the tertials being entirely white; the primary-coverts have also their terminal half grayish dusky, while of the alulae one feather on one side and two on the other are of the same color. The rump is also somewhat obscured by a grayish tinge. The ptilium seems to be of a deeper shade of fine pearl-blue in this specimen than in an adult male in the National Museum from Nicaragua. Mr. Zeledon's specimen measures as follows:—Wing, 5.40; tail, 3.00; bill, from nostril, .45; tarsus, .95; middle toe, .85.

JUNCO VULCANI (Boucard).—This interesting new species was originally discovered by Mr. Zeledon in 1873, but the specimens which were then forwarded by him to the Smithsonian Institution, along with other species then new, but since, like the present one, rediscovered, never reached their destination. Specimens more recently collected by Mr. Zeledon are now before me, and upon examination I find that the species should be referred to the genus *Junco*, rather than to *Zonotrichia*. In fact, it agrees perfectly in its generic characters with the former, except that the back is streaked, while there is no white on the lateral tail feathers. Like *J. cinereus* of the highlands of Mexico, and *J. alticola* of Guatemala, it has a bright yellow iris. Its alpine habitat—the summit of the Volcan de Irazu—still further favors this view of its affinities.

NOVEMBER 18, 1878.