

nesting-tree and found the young noticeably larger; fully twice the size that they were when first hatched. The down on their heads had increased and down had appeared across their backs between their wings. For the first time they were heard to utter a note, a simple "Peep, peep, peep," etc., very low and faint. It was loud enough to bring the female to my side, however, while the male began to sing from the oaks. Instead of being silent, as always when I was at the nest before, the female uttered excited squeakings (not the true scolding-note) from a perch within three feet of me. She soon became silent and disappeared. I reached the ground at 6.46 p. m., and, on stepping back to look at the nest, saw that the female had already returned to it.

(To be continued.)

NOTES ON ORTALIS VETULA AND ITS ALLIES.

BY W. DEW. MILLER AND LUDLOW GRISCOM.

A. THE STATUS OF ORTALIS V. MCCALLII BAIRD.

IN 'Isis,' 1830, page 1112, Wagler described *Penelope vetula*. A translation of the Latin is as follows: "Olivaceous; the head and ears slaty gray; the flanks, crissum, and tibia brownish; the epigastrium and belly subrufescent; tail feathers above bronzy green with snow-white tips. The length, 18 inches; longest tail feathers, 9.70; the shortest, 6.50. Mexico."

In 1858 Baird¹ described *Ortalida mcallii*, the length being given as 23.50; wing, 8.50; tail, 11 inches. He admitted feeling considerable uncertainty as to the proper specific name of his subject. His description was based on one specimen from Nuevo Leon with no other Mexican material for comparison.

Ridgway² gives a synopsis of the races of *Ortalis vetula*. *O. v. mcallii* is given from Vera Cruz north to lower Rio Grande Valley; *O. v. plumbiceps*, described by Gray in 1867, from southern Mexico to Guatemala; and last he describes *O. v. pallidiventris* from Yucatan. It is significant that no *O. v. vetula* is given. In a footnote

¹ Rep. Expl. & Surv. R. R. Pac., IX, 1858, 611.

² Manual of North American Birds, 1887.

under *mccallii* Mr. Ridgway comments as follows: "It is possible that this (*mccallii*) may be the true *O. vetula* of Wagler, which seems to agree exactly in color with *O. mccallii*; but the size of the former is much smaller, the length being given as 18 inches, the tail 9.70. The locality is given as simply 'Mexico,' and it may be that a fourth local race, to which Wagler's name is strictly applicable, may exist in some portions of Mexico, specimens from which have not come under my observation."

So much for American expressions of opinion. In England Slater and Salvin revised the family in 1870,³ rejecting *mccallii* and other races described up to that time; a policy followed by all other writers except Sharpe in the 'Handlist of Birds.' He admits all the races described except *O. plumbiceps* of Gray from Guatemala and Honduras. He gives the range of *O. vetula* as southern Mexico to Honduras; and presumably, therefore, considers *plumbiceps* a synonym of true *vetula*. While Wagler's original description of *vetula* is seen to be very meager, this treatment of the question is obviously erroneous, as one of Gray's chief characters for his *plumbiceps* is the rusty white tips to the lateral tail feathers, which cannot be reconciled with the snowy white tips insisted upon by Wagler; while *plumbiceps* is a darker bird throughout.

It will be seen, therefore, that *O. v. mccallii* has no status abroad except for the 'Hand-list,' and that its sole character in American opinion is an alleged larger size founded on one specimen. Further, the combination *O. vetula vetula* has never been applied to any bird anywhere. An excellent series of the species before us shows that the supposed differences in size are easily accounted for by great individual variation, and further that Texas specimens actually average smaller than specimens from Mexico, the exact reverse of the supposed facts. Finally all these birds from Texas to Vera Cruz have passed in America as *O. v. mccallii*. As all birds from other Mexican localities and southward, of several valid races, do not possess pure white tail tips, it is impossible to identify any of them with *O. vetula* (Wagler). It is obvious therefore that *O. v. mccallii* Baird is a pure synonym of *O. v. vetula*

³ P. Z. S., p. 538.

(Wagler). This was described, be it remembered, from "Mexico." As there are now known to be several races in Mexico, and as we consider that Wagler's description is recognizable on the basis of the snow-white tail tips, we hereby designate Tampico, Tamaulipas, Mexico, as the type locality.

MEASUREMENTS OF WING.

S. Texas.....	6 ♂	194-214	8 ♀	186-204
Nuevo Leon.....	5 ♂	211-219	1 ♀	199
Tamaulipas.....	4 ♂	214-222	1 ♀	201
Vera Cruz.....	1 ♂	219	1 ♀	202

B. SYNOPSIS OF THE RACES OF *ORTALIS VETULA*.

A study of our material of this species shows not only that the various races described in the past, except *mecallii*, rest on valid characters, but also that there are two other races in Mexico that are undescribed.

We are indebted to Mr. Bangs for the loan of the type and two other specimens of *O. v. intermedia*.

1. *Ortalis vetula vetula* (Wagler).

Penelope vetula Wagler, Isis, 1830, p. 1112. Type-locality "Mexico"; by subsequent designation (Miller and Griscom, 1921) Tampico, Tamaulipas, Mexico.

As already mentioned, this race is characterized by snow-white tail-tips, and the crissum is devoid of any rufous tinge. In a large series from southern Texas to extreme northern Vera Cruz, Texas birds are usually lighter on the belly, and average smaller; but these differences in our opinion are too slight for subspecific separation.

2. *Ortalis vetula jalapensis* subsp. nov.

Subsp. Char.—Similar to *O. v. vetula*, but head darker gray; upper parts and wings decidedly browner; tips of the tail feathers ashy buff proximally to dirty white distally, never snow-white; middle of belly isabelline-brown instead of light ashy brown or whitish; flanks and crissum fulvous-brown, rather than buffy brown (Ridgway) or saccardo umber (Ridgway). Wing, 202; tail, 261; culmen, 21; tarsus, 62.

Type.—No. 68729, Amer. Mus. Nat. Hist., ♀ ad., Jalapa (alt. 4400 ft.), Vera Cruz, Mexico, April 7, 1897, coll. F. M. Chapman.

For remarks, see under the next race.

3. *Ortalis vetula fulvicauda* subsp. nov.

Subsp. Char.—Similar to *O. v. jalapensis*, but much darker; the upper parts deep olive-brown with no shade of gray; tail-tips dirty brownish buff proximally, paler distally; lower throat and breast much browner; belly scarcely paler than chest; flanks and crissum deep fulvous brown.

Type.—No. 74566, Amer. Mus. Nat. Hist., ♂ ad., Tolosa, Oaxaca, Mexico, Dec. 20, 1900, coll. by A. E. Colburn and Percy W. Shufeldt.

No.	Sex	Wing	Tail	Culmen	Tarsus
74566 A. M. N. H.	♂	207 mm.	267 mm.	25 mm.	65.5 mm.
74567	♂	211	260	25	64
74568	♂	208	255	26	65

Remarks.—This race is the dark extreme of *Ortalis vetula*, and can be separated at a glance from any other race. Our three specimens are all from Tolosa, Oaxaca, on the western slope of the mountains which form the boundary between Oaxaca and Vera Cruz. We have not been able to determine the altitude. *O. v. jalapensis*, from the eastern slope of the same mountains, is exactly intermediate between this race and *O. v. vetula* from the lowlands of northeastern Mexico, and intergrades might be expected. In spite of the fact that it is intermediate, however, it is told at a glance from the latter race by the difference in color of the tail-tips and other good characters, and seems, therefore, fully worthy of a name. In color it much more closely resembles *O. v. plumbiceps* and *O. v. intermedia* with which it is not geographically related. From both it can be distinguished by the darker belly, which is much less contrasted with the chest and crissum; the crissum in the two other races is tinged with rufous. It is much larger than *intermedia*, and the tail-tips are not so strongly bicolored as in *plumbiceps*.

4. *Ortalis vetula plumbiceps* Gray

Ortalis plumbiceps Gray, List of Birds, Part V, Gallinae, p. 11, 1867. Type locality, "Honduras, Guatemala."

This race was described from Guatemala and Honduras, and we are able to extend its range southward to the highland region of central Nicaragua, on the Pacific slope, where it is a common bird. We have seen no specimens from other localities. In color it is closest to *O. v. jalapensis*, a relationship which has al-

ready been discussed. Its chief character is the strongly bi-colored tail-tips, which are rufous to rusty proximally, and grayish buff to almost pure white terminally.

Measurements of this race as given by Gray are scarcely satisfactory:

No.	Sex	Wing	Tail	Culmen	Tarsus
102405	A. M. N. H. ♂	202 mm.	269 mm.	26 mm.	70 mm.
143644	" ♂	214	256	27	69
143645	" ♀	187	240	24	65

5. *Ortalis vetula intermedia* Peters.

Ortalis vetula intermedia Peters, 'Auk,' 1913, p. 371. Type locality, Camp Mengel, Terre Quintana Roo, Mexico.

This excellent race is the nearest approach to *O. v. pallidiventris*, and is a connecting link between it and *O. v. plumbiceps* further south. It is possibly the smallest of the races, and in this respect would not be intermediate, but our series is too small for final judgment. The best color characters by which to separate it from *plumbiceps* are the light isabelline instead of fulvous brown abdomen and the comparatively uniform tail-tips.

6. *Ortalis vetula pallidiventris* Ridgway.

Ortalis vetula pallidiventris Ridgway, Manual of North American Birds, p. 209, 1887. Type locality, "Yucatan."

This is the palest and grayest race of *O. vetula*, and is strikingly distinct from its nearest relative *O. v. intermedia*, the light grayish-olive back with no brown tinge being a unique character in the group.

Measurements of *pallidiventris* have apparently never been given. Two males from Chichen-Itza in the American Museum collection measure as follows: an adult—wing, 199; tail, 240; culmen, 23; tarsus, 70; and an apparently young bird—wing, 176; tail, 212; culmen, 24; tarsus, 68. It is closest to *intermedia* in size, with a proportionately longer tarsus.

The outlying forms, *O. v. vetula*, *O. v. fulvicauda*, and *O. v. pallidiventris*, if compared with each other alone, would unhesitatingly be given specific rank. The intermediate races, which serve as

connecting links, are on the other hand easily distinguished and geographically separated from each other.

C. STATUS OF ORTALIDA RUFICRISSA SCLATER AND SALVIN.

This species was described in 1870 in a footnote to the authors' Monograph of the Cracidae.¹ The single specimen came from Valle Dupar, on the south side of the Sierra Nevada of Santa Marta, Colombia, at an altitude of 400 feet. The authors compare it to *O. vetula*, but state that it is distinguished by the rufous crissum and the very broad white tips to the tail-feathers.

The type remained unique for over forty years, and the bird must be rare, as the collectors of Mr. Bangs and the American Museum of Natural History failed entirely to discover it. As a result it has had a chequered career. Sharpe omits it entirely in the 'Hand List.' Grant, in the British Museum 'Catalogue of Birds,' recognizing nothing but *O. vetula*, gives its range from southern Texas to Colombia. The species is also given by Salvin and Godman in the 'Biologia Centrali-Americana' in the synonymy of *O. vetula*.

The second known specimen was collected by M. A. Carriker, Jr., April 28, 1914, at Dibulla, Sierra Nevada de Santa Marta, and we wish to express our indebtedness to Mr. W. E. Clyde Todd, of the Carnegie Museum, Pittsburgh, for his courtesy in forwarding this bird for our examination.

There is no doubt of its close affinity to *O. vetula*. In plumage it is a curious combination of several races of *O. vetula*, but has certain characters all its own, which in connection with its geographical isolation, and the strong improbability of connecting links in Central America, entitle it in our opinion to specific rank. The special characters are: (1) the bright rufous-chestnut crissum, the nearest approach to which is in *O. v. plumbiceps*. (2) The very broad pure white tail-tips, the extent of which is unique. Taking the third feather, and measuring along the outer side of the shaft, in *O. vetula* (including all races) the variation is 19.5-34.5 mm.; in *O. v. vetula*, 20-32 mm.; while in *ruficrissa* the white area measures 44 mm. (3) Forehead and feathers of malar

¹ P. Z. S., June 9, 1870, p. 538.

region, bordering the naked throat-patch, black instead of gray, due to the lack of development of the webs. (4) Central tail-feathers not tipped with lighter. (5) Tail proportionately shorter and less graduated. (6) Upper parts less uniformly colored than any race of *O. vetula*, the rump and upper tail-coverts browner. (7) Flanks light rufous. With these exceptions the head is similar to *O. v. plumbiceps*; throat and chest nearest to *O. v. jalapensis*; belly intermediate between *O. v. intermedia* and *O. v. pallidiventris*, and scarcely differing from some specimens of *plumbiceps*; anterior upper parts as in *O. v. jalapensis*, but rump and upper tail-coverts as in *O. v. fulvicauda*; tail-tips in color as in *O. v. vetula*. Soft parts (collector's notes): iris, red-brown; feet leaden blue; bill black apically, leaden basally. Wing, 212; tail, 253; culmen, 28; tarsus, 65.5.

The species will therefore stand as *Ortalis ruficrissa* Sclater & Salvin.

The following key is offered as a partial aid to future investigators:

- A. Light tail-tips more extensive (tip of 3rd rectrix 44 mm.); tail-tips pure white combined with bright rufous crissum. (Santa Marta, Colombia).....*O. ruficrissa*
- AA. Tail-tips less extensive (tip of 3rd rectrix 19.5-34.5 mm.); tail-tips not pure white, or if pure white, crissum not rufous....*O. vetula*
 - B. Tail-tips snow-white (S. Texas to N. Vera Cruz)....*O. vetula vetula*
 - BB. Tail-tips not snow-white.
 - C. Back grayish olive (Yucatan).....*O. v. pallidiventris*
 - CC. Back olive-brown.
 - D. Underparts darker and browner; middle of belly not lighter than chest (Oaxaca).....*O. v. fulvicauda*
 - DD. Underparts lighter and less brown; middle of belly noticeably lighter than chest.
 - E. Tail-tips noticeably bicolored, distinctly rufous proximally (Guatemala to N. Nicaragua).....*O. v. plumbiceps*
 - EE. Tail-tips scarcely bicolored.
 - F. Entire underparts and tail-tips darker and browner; size larger, wing (♀) 202. (Mts. of Vera Cruz)
O. v. jalapensis
 - FF. Entire underparts and tail-tips lighter and less brownish; size small, wing 172-184. (Quintana Roo)
O. v. intermedia