PROCEEDINGS

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DIAGNOSES OF SOME NEW FORMS OF PICIDÆ.

BY ROBERT RIDGWAY.

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Colaptes auratus borealis subsp. nov.

Type from Nulato, lower Yukon R., Alaska, No. 49,922, U. S. Nat. Mus. Adult male. June 23, 1867, W. H. Dall.

Similar to *C. a. auratus* and *C. a. luteus* in coloration, but decidedly larger than the latter, much larger than the former. Adult male (type): Wing, 170; tail, 113; exposed culmen, 36.5; tarsus, 30; outer anterior toe, 23.

The case of Colaptes auratus is precisely parallel to those of Druobates villosus and D. pubescens, all three species gradually increasing in size from the extreme southern to the extreme northern parts of their range, without material change in coloration. Evidently the three cases require identical treatment; and since three forms seem to best express the conditions in the two species of Dryobates (east of the Rocky Mts.) we can not have less than three forms of Colaptes without being conspicuously inconsistent. While Colaptes auratus luteus Bangs includes both the medium-sized specimens from the more northern portions of the United States and the very large ones from the far North, the type is an example of the resident bird of Massachusetts, though an exceptionally large one. Under the circumstances, it seems best to restrict the name luteus to the mid-region form, and give a new name to the large northern bird. By so doing, we have, as in the cases of *Dryobates villosus* and *D. pubescens*, a small Lower Austral or Anstroriparian form, a medium-sized form of the Upper Austral and Transition life-zones, and a large form in the Canadian and Hudsonian zones.

The case of *Phleotomus pileatus*, in its variations east of the Rocky Monntains, is nearly the same, but different in this respect: The species does not extend so far northward, and the lines separating (somewhat arbitrarily, as in the other species) the ranges of the two more southern forms are shifted farther southward; the extreme southern form, instead of inhabiting the Lower Austral zone as a whole, being restricted to middle and southern Florida.

Colaptes chrysoides mearnsi subsp. nov.

Type from Quitovaquito, Arizona. No. 132,871, U. S. Nat. Mus. Adult male. February 2, 1894. Dr. Edgar Λ. Mearns, U. S. A.

Similar to *C. c. chrysoides* but decidedly larger and paler, with pileum more strongly cinnamomeous, black bars on back, etc., narrower, spots on outer web of primaries more conspicuous (primary coverts also sometimes spotted), gray of throat, etc., lighter, and spots on under parts usually smaller. Adult male (type): Wing, 146; tail, 96; exposed culmen, 35.5; tarsus, 27; outer anterior toe, 23.

There are apparently three easily characterized geographic forms of this species, as follows:

Colaptes chrysoides chrysoides (Malherbe). Southern Lower California. Colaptes chrysoides brunnescens Anthony. Middle Lower California.

Colaptes chrysoides mearnsi Ridgway. Arizona, extreme southeastern California and northern Lower California, and southward to southern Sonora.

Centurus chrysogenys flavinuchus subsp. nov.

Type from Acapulco, Guerrero, southwestern Mexico. No. 154,935, U. S. Nat. Mus. (Biological Survey Coll.). Adult male. January 13, 1895, Nelson and Goldman.

Similar to *C. c. chrysogenys* (Vigors)* but adult male with nape bright orange-yellow (instead of orange-red), strongly contrasted with red of crown; adult female with nape yellow, instead of orange or orange-red. Adult male (type): Wing, 124; tail, 75; exposed culmen, 26; tarsus, 21.5; outer anterior toe, 20.

Centurus uropygialis brewsteri subsp. nov.

Type from Santiago, southern Lower California. No. 151,827, U. S. Nat. Mus. Adult male. November 22, 1887, M. Abbott Frazar.

Similar to *C. u. uropygialis*, of Arizona, etc., but smaller, with relatively (often absolutely) larger bill; bars on back, etc., averaging decidedly narrower, black bars on lower rump and upper tail-coverts narrower and more numerous, and white bars on lateral rectrices, as well as black ones on inner web of middle rectrices, narrower. Adult male (type): Wing, 129; tail, 79.5; exposed culmen, 30; tarsus, 23; outer anterior toe, 18.

Chloronerpes rubiginosus trinitatis subsp. nov.

Type from Princestown, Trinidad. No. 59,416, Am. Mus. Nat. Hist. Adult male. March 3, 1893, Frank M. Chapman.

Smaller and more richly colored than *C. r. rubiginosus*, from the arid coast district of Venezuela, the back, etc., brighter, more tawny, olive, chest more brownish dusky with narrower bars of yellowish and more or less strongly suffused with dull orange or tawny. Adult male (type): Wing, 104 mm.; tail, 61.5; culmen, 23.5; tarsus, 20.5.

^{*}The name Centurus elegans (Picus elegans Swainson, 1827) can not be used for this species, being preoccupied by Picus elegans Müller, 1776.

 $[\]it Centurus\ ehrysogenys\ chrysogenys\$ is confined to the State of Sinaloa and Territory of Tepic.

Chloronerpes rubiginosus tobagensis subsp. nov.

Type from Tobago. No. 74,968, U. S. Nat. Mus. Adult male, May, F. A. Ober.

Similar in coloration to *C. r. trinitatis* but decidedly larger. Adult male (type): Wing, 115; tail, 66; culmen, 23.5; tarsus, 20. (Average measurements of adult males of the two forms are:—

C. r. trinitatis (5 specimens): Wing, 105.4; tail, 60.7; eulmen, 22.9; tarsus, 20.

C. r. tobagensis (7 specimens): Wing, 111; tail, 65.5; culmen, 24.1; tarsus, 17.6.)

Chloronerpes rubiginosus meridensis subsp. nov.

Type from near Merida, Venezuela. No. 100,734, Am. Mus. Nat. Hist. Adult male. S. Briceño Gabaldon.

In coloration nearest *C. r. uropygialis* from Costa Rica and Panama, but posterior under parts more strongly barred, and bill more slender. Adult male (type): Wing, 121 mm.; tail, 73; culmen, 22.5; tarsus, 21.

(Another adult male from Punta, near Merida, measures as follows: Wing, 123.5; tail, 74; culmen, 23; tarsus, 20.5.)

Veniliornis kirkii darienensis subsp. nov.

Type from El Reál, Darien, eastern Panama. No. 150,795, U. S. Nat. Mus. Adult male. September 3, 1889, Heyde and Lux.

Similar to *V. k. continentalis* Hellmayr, of Venezuela, but wing-coverts without yellowish spots or streaks, and under parts much more narrowly barred, the pale bars pale brownish buff instead of buffy white. Similar also to *V. k. cecilii* (Malherbe), of central Colombia, but back, etc., brighter, more tawny, and under parts more broadly barred with pale brownish buff (instead of dull whitish), and size slightly less. Adult male (type): Wing, 83; tail, 52; exposed culmen, 18.5; tarsus, 15.5; onter anterior toe, 11.5.

Phlæotomus pileatus floridanus subsp. nov.

Type from Prevatt's Camp, 24 miles s. w. of Kissimmee, Florida. No. 152,136, U. S. Nat. Mus. Adult male. March 23, 1896, R. Ridgway.

Similar to *P. p. pileatus* but decidedly blacker (that is, the general blackish color less slaty or sooty), average size less, and bill relatively shorter and broader. Adult male (type): Wing, 223; tail, 151; exposed culmen, 45; tarsus, 33; outer anterior toe, 27.

The following geographic forms of this species seem to be susceptible of definition:

Phlæotomus pileatus pileatus (Linnæus). Lower Austral life-zone (except middle and southern Florida), and southern portion of Upper Austral life-zone.

Phlæotomus pileatus floridanus Ridgway. Peninsular Florida.

Phlæotomus pileatus abieticola Bangs. Canadian and Transition lifezones and northern portion of Upper Austral zone, east of Rocky Mts.

Phlwotomus pileatus picinus Bangs. Canadian and Transition lifezones of northwest coast, from British Columbia to the southern Sierra Nevada.

Scapaneus guatemalensis nelsoni subsp. nov.

Type from El Rincon, Guerrero, s. w. Mexico. No. 185,526, U. S. Nat. Mus. (Biological Survey Coll.) Adult male. May 8, 1903, Nelson and Goldman.

Similar to S. g. guatemalensis but decidedly smaller, black of upper parts, neck and chest less sooty (that of foreneck glossy, slightly bluish, that of chest more extended); back stripes whiter (less yellowish); lighter bars on under parts of body paler and narrower; yellow on under side of wings paler. Adult male (type): Wing, 177; tail, 96; exposed culmen, 42.5; tarsus, 32; outer anterior toe, 24.

The several geographic forms of this species (as I am able to make them out), with their respective ranges are as follows:

Scapaneus guatemalensis guatemalensis (Hartlaub). States of Oaxaca, Tabasco, and Yucatan, southern Mexico to Costa Rica.

Scapaneus guatemalensis regius (Reichenbach). Middle-eastern Mexico, in States of Tamaulipas, San Luis Potosi, and Vera Cruz.

Scapaneus guatemalensis nelsoni Ridgway. Southwestern Mexico, in States of Sinaloa, Jalisco, Colima, and Guerrero and Territory of Tepic.

Picumnus olivaceus panamensis subsp. nov.

Type from Lion Hill Station, Panama Railway, eastern Panama. No. 53,959, U. S. Nat. Mus. Adult male. J. McLeannan.

Similar to *P. o. granadensis* but smaller, coloration decidedly more brownish olive, pileum much duller black, and feathers of malar region and chin more narrowly margined with black or with these markings sometimes obsolete. Adult male (type): wing, 50; tail, 24; exposed culmen, 12; tarsus, 12.5; outer anterior toe, 10.5.

The following seem to me to be well-defined geographic forms of this species:

Picumnus olivaceus olivaceus (Lafresnaye). Central Colombia.

Picumnus olivaceus granadensis (Lafresnaye). Western Colombia.

 ${\it Picumnus oliraceus panamensis} \ {\it Ridgway}. \quad {\it Eastern Panama}.$

Picumnus olivaceus flarotinctus Ridgway. Western Panama and Southwestern Costa Rica.

Picumnus olivaceus dimotus Bangs. Caribbean slope, Nicaragua and Honduras.

Balanosphyra gen. nov. (Picidæ).

Type.—Picus formicivorus Swainson.

Medium sized Picidæ similar to *Melanerpes* but with antrorse prefrontal feathers ("nasal tufts") developed into conspicuous dense tufts; feathers of breast broad, imbricated, and firm; eighth, seventh and eighth, or sixth, seventh and eighth primaries longest; ninth primary nearly as long

as fifth, and tenth (outermost) relatively much smaller (only about one-fourth as long as minth), narrower, and more accuminate.

(βάλανος, an acorn; σφυρα, a hammer.)

Species and subspecies:

- Balanosphyra formicivora.
 - a. Balanosphyra formicivora formicivora (Swainson).
 - b. Balanosphyra formicivora aculeata (Mearns).
 - c. Balanosphyra formicivora bairdi (Ridgway).
 - d. Balanosphyra formicirora angustifrons (Baird).
 - e. Balanosphyra formicivora albeola (Todd).
 - f. Balanosphyra formicivora striatipectus (Ridgway).
- 2. Balanosphyra flavigula (Malherbe).
- 3. Balanosphyra xantholarynx (Reichenbach).

