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PROCEEDINGS

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A REVIEW OF EUMOMOTA SUPERCILIOSA

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In the course of working up the Dwight Collection of Guatemalan birds, fine series of two very distinct races of this motmot were found. To name them properly, it became necessary to study the variations of this beautiful bird throughout its range, and, thanks to the co-operation of the authorities of the Museum of Comparative Zoölogy and of the American Museum of Natural History, I have before me the combined collections of these institutions, totalling over a hundred specimens from every part of the range of the species.

A study of my abundant material confirms Ridgway's opinion that the sexes are alike, and shows that young birds are easily distinguished from adults by the characters given in his 'Birds of North and Middle America,' Part 6, p. 478. Like all other Central American motmots, it is dichromatic and extremely variable. There are a tawnier and a greener phase, the latter distinctly the less common of the two, as in *Electron*. As greater tawniness or greenness is also an important racial character, it is obvious that care is necessary and representative series are essential. In the greener races extremes of the green phase are glaucous or almost bluish in tone, and the lesser wing coverts, ordinarily olive green or green, are tinged and tipped with blue. There is great variation in size, but I can find none of racial value, nor have I any evidence of any sex variation. As these birds live in thickets and scrub, they become very worn. Worn specimens have a characteristically frowsy and faded appearance, and the cinnamon rufous interscapulum tends to appear more extensive as the olive green tips to the feathers become worn off or obliterated entirely.

Eumomota is a relatively well known bird, and its habits have been excellently described. I have studied two of the races in life. The phrase, 'beautiful but dumb,' applies well to these Motmots. They are strictly Tropical Zone birds of dry or arid regions, preferring scrub or thickets in country which is not heavily forested. They are rarely, if ever, found above 3000 ft., and never in really heavy forest itself. Geographical variation can be expressed in general terms. The darkest forms occur in the more humid climates, the tawnier forms are all coastal, the greener races are isolated in the interior, and the palest is the southernmost. The diagnoses given below are based on adults in fresh plumage, and the color characters apply relatively to both phases.

Eumomota superciliosa superciliosa (Sandbach)

[Pyronites] superciliosus Sandbach, Athenæum, no. 517, 1837, p. 698. (Mexico, said to be Campeche.)

Subspecific characters.—Tawniest race; feathers of breast with the olive area at tip shorter and fainter, so that color of breast passes gradually into the cinnamon rufous of abdomen, with no contrast; cinnamon rufous interscapulum moderately large and well defined; crown but little darker than back; superciliaries and throat streaks light turquoise blue; wing coverts bright olive green.

Range: Northern half of Yucatan Peninsula, Cozumel Island, Campeche and Tabasco.

Material examined.—Yucatan, 12, including types of Momotus yucatanensis Cabot.

Eumomota superciliosa bipartita Ridgway

Eumomota superciliaris bipartita Ridgway, Proc. Biol. Soc. Washington, vol. 25, 1912, p. 90 (Cacoprieto, Oaxaca, southwestern Mexico.) Subspecific characters.—Darkest tawny race; pileum often sooty blackish; olive green of upper parts darker; interscapulum almost chestnut, moderately large and well defined; olive of breast darker, occupying a more extensive area on each feather, abruptly contrasted with tawny abdomen; wing coverts dark olive green.

Range: Vera Cruz, Oaxaca, Chiapas, and Pacific slope of Guatemala. Material examined.—Guatemala, Pacific slope, Hacienda California, 8; Pantaleon, 4; Finca El Cipres, 1; Finca El Espino, 1 (all in Dwight coll.).

Eumomota superciliosa apiastur (Lesson)

Crypticus apiastur Lesson, Rev. Zool., 1842, vol. 5, p. 174 ("San Carlos, Americae centralis Oceani Pacifici"=Salvador).

Subspecific characters.—A greener and consequently a paler bird than typical superciliosa; upper parts brighter olive green; breast olive green rather than olive, the tawny wash much less apparent than in the two preceding races, abruptly contrasted with the duller, paler cinnamon rufous of abdomen; superciliary slightly paler turquoise; wing coverts nearest parrot green.

Range: Salvador, western Honduras, northwestern Nicaragua; a series from north-central Nicaragua also belongs here, but the birds are slightly greener, approaching *dickeyi*.

This name of Lesson is revived, since we now know where his San Carlos was, and excellent series from Salvador are available. When Bangs described *australis* in 1906, he very properly regarded *apiastur* as unidentifiable, a course which Ridgway followed in 1914. Lack of material made both men unable to state definitely just what form of *Eumomota* occurred in Salvador and adjacent parts of Central America. Messrs. Dickey and van Rossem really deserve the credit for discovering that *apiastur* is a valid form. With the greatest generosity they have forwarded for my examination a series of topotypes from Salvador, carefully selected to show the range of variation. It is apparent that this revision depended upon a proper understanding of *apiastur*, and most of the other races could not have been properly characterized without it. My appreciative thanks are hereby duly rendered.

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Material examined.---Salvador, 6; northwestern Nicaragua, 7; north-central Nicaragua, 14.

Eumomota superciliosa australis (Bangs)

Eumomota superciliaris australis Bangs, Proc. Biol. Soc. Washington, vol. 19, 1906, p. 104 (Bebedero, northwestern Costa Rica).

Subspecific characters.—Palest and dullest race; the superciliaries often silvery white proximally; breast less green than in *apiastur*, the tawny wash replaced by an ochraceous one, abdomen and basal half of all feathers below a paler duller cinnamon with an ochraceous or clay-colored tinge; wing coverts a duller olive green than in *superciliosa*.

Range: Localized in northwestern Costa Rica.

This pale, dull-colored race is one extreme of variation in this genus, and with a proper series is sharply distinct from every other. Occupying the southern extreme of the range on the Pacific side, it is so utterly different from *bipartita* at the other extreme that there is ample room for an intermediate race, *apiastur*. We have here, then, the most unusual case of an old name, based on an intermediate, which does not cause either systematic or nomenclatural difficulties.

Material examined .-- Northwestern Costa Rica, 20, including the type.

Eumomota superciliosa euroaustris subsp. nov.

Type, no. 136,585, Museum of Comparative Zoölogy; male adult; Lancetilla, Honduras, March 6, 1928; J. L. Peters.

Subspecific characters.—Closest to the geographically remote bipartita in its dark and rich coloration, but green of a slightly darker, purer, less olive, shade; interscapular area not quite so dark; superciliaries a markedly deeper turquoise blue, with little or no silvery tinge proximally; breast distinctly greener, with less of a tawny wash; very different from the adjacent green race in the interior of Honduras.

Range: Isolated in the drier and more open valleys on the Caribbean slope of eastern Honduras.

A very distinct form, most closely related to the geograph-

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ically remote *bipartita*. The climatic conditions, however, in which these two forms live are the nearest alike. It is noteworthy that on the Carribean slope of Central America no form of *Eumomota* has been taken between eastern Honduras and the outer half of the Yucatan Peninsula. The intervening area is occupied either by heavy rain forest or else open pine woods, habitats in which this species is unknown.

Material examined.-Eastern Honduras, Lancetilla, 3; Ceiba, 1.

Eumomota superciliosa dickeyi subsp. nov.

Type no. 36,530, Museum of Comparative Zoölogy; adult, sex?; Copan, Honduras, 1891; Gorgonio Lopez.

Subspecific characters.—In general color very close to apiastur, but purer green, less olive, especially on rump, wing coverts and breast; green of a slightly darker shade; pileum darker, often very sooty; interscapular area more extensive than in any other race.

Range: Locally in the interior of central Honduras.

Material examined.—Honduras, Copan, 5.

Eumomota superciliosa vanrossemi subsp. nov.

Type, Dwight Collection in the American Museum of Natural History, female adult; Sacapulas, Rio Negro valley, interior of Guatemala; March 23, 1928; A. W. Anthony, original number 6740.

Subspecific characters.—The brightest green race; less olive even than dickeyi, with less tawny wash on the breast than any other race; pileum scarcely darker than back; interscapular area greatly reduced, in extreme specimens the cinnamon rufous not reaching the tip of a single feather; general coloration, as regards relative darkness or lightness, as in *apiastur*; extremes of the green phase are almost glaucous or bluish, some specimens having bluish tips to the feathers of the pileum and lesser wing coverts.

Range: Localized in the arid portions of the Rio Motagua and Rio Negro in the interior of Guatemala.

By all odds the most brightly colored and handsomest race of this beautiful motmot, and readily distinguishable from

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every other. The description is based on the fine series from Sacapulas. The specimens from Progreso are either young or very worn adults. They unquestionably belong here, but if I have made proper allowance for their plumage, they would seem to show a slight approach towards *dickeyi*. The Guatemala-Honduras boundary region is unexplored ornithologically, so it is possible that intergrades may be found, if there are suitable arid valleys. Intergradation between *vanrossemi* and *bipartita* is, however, out of the question. They are separated by the entire Pacific Cordillera.

It is a pleasure to name the last two races after Messrs. Dickey and van Rossem. Not only have they made this review possible, as already stated, but the writer has been indebted to them for many ideas and much interesting information about Central American birds for some years past.

Material examined.—Guatemala, Sacapulas, 14; Progreso, 6, Gualan, 1 (M. C. Z.).