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DESCRIPTIONS OF NEW BIRDS FROM MT. DUIDA, VENEZUELA

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For the past twenty years or more it has been the aim of the American Museum to explore the mountain mass near the headwaters of the Orinoco, known as Mt. Duida. In the fall of 1912, Mr. Leo E. Miller was given this commission. He reached the vicinity of the mountains on the Rio Cunucunuma when the illness of his associate compelled him to abandon the undertaking.

Nearly sixteen years passed before circumstances favored our making a further attempt on Duida. Then, thanks to the financial support of Mr. Sidney F. Tyler, Jr., of Philadelphia, a well-equipped expedition left New York on July 21, 1928, bound for the upper Orinoco by way of the Amazon and Rio Negro. It was under the leadership of Mr. G. H. H. Tate of the museum staff, who was accompanied by Mr. Tyler as historian and photographer, Mr. Charles B. Hitchcock as topographer and geologist, and Mr. Raymond S. Deck as ornithologist. At Manaos the expedition was joined by the museum's Ecuadorean collectors, Alphonse and Ramon Olalla, together with their four assistants. Esmeralda, the base of operations on the upper Orinoco, was reached October 1, 1928 and the expedition embarked from this place on the return journey on March 14, 1929.

During the intervening four months and a half a trail was made up the Duida escarpment, which was found to be the southeast face of a basin-tableland, some 250 square miles in area, having an elevation of from 4200 feet at its bottom to 7800 feet on the bordering peaks. The slopes of the mountain, except on vertical cliffs, and almost the entire tableland were found to be so densely forested that it was possible to collect only after trails had been cut. About forty miles of such trails were made, permitting the formation of a collection of 6748 birds, which it is believed fairly represents the bird-life of the region between Esmeralda and Mt. Duida, the neighboring slopes, and the tableland of the mountain. Large collections were also made of mammals and plants, and data were secured with which to make an adequate topographical

map of a hitherto unknown area. In short, the expedition achieved all its objectives.

In describing¹ the new birds secured by the Lee Garnett Day expedition to Mt. Roraima in 1927, I said that a detailed report on the collection made by this expedition was withheld in the hope that the work then in progress on Mt. Duida might throw some light on the problems presented by the study of our Roraiman material. It is too early to say to what extent this hope has been fulfilled but it can be said in advance of a final report, that the avifauna of the upper life-zone on Mt. Duida is almost purely Roraiman. Species after species, heretofore known only from Mt. Roraima, were found on Duida and even the races of variable species, which we have believed to be restricted to Roraima, appear unchanged on Duida. This close faunal affinity indicates either that in the approximately 375 miles by which these two mountains are separated there are areas of sufficient elevation virtually to connect the ranges of their distinctive life, or that such connection has existed at no very remote period.

The greater number of the birds herein described are representative species or races of Roraiman birds, but several are so distinct that their recent ancestry is not evident. There are also a number of exceptionally interesting zonal forms apparently derived from ancestors still existing at the base of the mountain; notable among these are the representatives of *Glaucidium brasilianum*, *Otus choliba*, *Taraba major*, and *Emberizoides herbicola*. The collection from the Tropical Zone at the base of Duida has not as yet been studied, but I have described from it several forms which seem obviously new.

In the belief that no other designation would be as appropriate or convey as much information, I have not hesitated to use the name "*duidæ*" for most of the birds from Mt. Duida's upper life-zone.

These descriptions are published in advance of a paper planned to treat of the affinities and geographical origin of the distinctive birds of both Roraima and Duida, as an announcement of the major ornithological results of the Tyler Duida Expedition, to avoid the necessity for the inclusion in the final report of the descriptive matter, measurements, etc., incident to the naming of new birds, and to supply these birds with titles under which their status may subsequently be discussed.

I am indebted to the authorities of the Carnegie Museum, Museum of Comparative Zoölogy, and Field Museum for the loan of specimens which have been of invaluable assistance in the preparation of this paper.

¹1929, Amer. Mus. Novitates, No. 341, Feb.

***Crypturornis casiquiare*, new species**

SPECIFIC CHARACTERS.—A member of the *Crypturornis variegatus*—*C. strigulosus* group with a gray breast, no rufous below, a chestnut crown, and barred back.

TYPE.—No. 245,912, Amer. Mus. Nat. Hist.; ♀ ad.; ovaries enlarged; right bank of Rio Casiquiare at its junction with the Rio Guainia, Venezuela; May 7, 1929; Olalla Bros.

■ **DESCRIPTION OF TYPE.**—Crown, sides of head and nape chestnut, the black bases of the feathers more or less exposed on the crown; hind-neck hair-brown with a drab tinge passing into the broad, black and ochraceous bars which extend from the fore-back to upper tail-coverts and tail; wings fuscous; inner coverts and tertials barred like the back; throat snowy white, changing quickly into the light neutral gray of the front and sides of the neck and sides of the breast; the center of the breast narrowly white broadening posteriorly into the white abdomen; flanks barred with cream and black; lower tail-coverts ochraceous-buff with some basal, black markings; tibiae grayish; feet brownish black; maxilla blackish; mandible yellowish horn black-tipped. 2 ♀: wing, 135–140; tarsus, 46; culmen, 25 mm.

SPECIMENS EXAMINED

Crypturornis casiquiare.—VENEZUELA: Junction Casiquiare and Guainia, 2 ♀.

Crypturornis strigulosus.—BRAZIL: Santarem, 1.

Crypturornis variegatus.—BRITISH GUIANA, 5 ♂, 4 ♀. VENEZUELA: Foot Mt. Duida, 12 ♂, 3 ♀. Eastern ECUADOR, 2 ♂. Eastern COLOMBIA, 1 ♂. Eastern PERU, 4 ♂, 8 ♀.

From our single unsexed specimen of *strigulosus* (wing, 158 mm.), *casiquiare* differs chiefly in its smaller size, barred mantle as well as rump, and pure gray breast and sides. It is not probable that the male of the bird here described differs materially from the female.

***Odontophorus guianensis medius*, new subspecies**

SUBSPECIFIC CHARACTERS.—Prevailing color of the underparts bright ochraceous-tawny as in *Odontophorus guianensis guianensis* (Gmelin); prevailing color of the sides of the head and throat gray as in *Odontophorus guianensis buckleyi* Chubb. More richly colored below than *marmoratus*, the cheeks gray rather than ochraceous-tawny, the throat gray, nearly uniform, instead of barred or spotted with white.

TYPE.—No. 245,913, Amer. Mus. Nat. Hist.; ♂ ad.; Caño Seco, Mt. Duida, Venezuela, 2250 ft.; Dec. 26, 1928; Olalla Bros.

SPECIMENS EXAMINED

Odontophorus guianensis medius.—VENEZUELA: Esmeralda, 1 ♀; Ft. Duida, 725 ft., 1 ♀; Caño Seco, 2250 ft., 3 ♂, 1 ♀; Aguita, 3250 ft., 1 ♀, 1 ♂ pull. (Jan. 7, 1929); right bank Casiquiare, at junction with Rio Guainia, 2 ♂, 1 ♀.

Odontophorus guianensis guianensis.—BRITISH GUIANA: Potaro Landing, 2 ♂, 1 ♀; Kamakusa, 1 ♂, 1 ♀. BRAZIL: Santarem, 1.

Odontophorus guianensis marmoratus.—VENEZUELA: Sta. Elena, head of Maracaibo,¹ 1 ♂. COLOMBIA: El Tamber, Santander,¹ 1 ♂, 1 ♀; Palmar, Boyaca,¹

¹Coll. Carnegie Mus.

1 ♀; Puerto Valdivia, Antioquia, 2 ♂; Murindo, Antioquia,¹ 1 ♀; Sautata, Rio Atrato,¹ 1 ♂. PANAMA: Cana,² 1 ♂, 3 ♀; Cituro, 1 ♂, 1 ♀; Boca de Cupe, 2 ♂; El Real,² 1 ♂; Tacarcuna, 2 ♂, 2 ♀; Tapalisa, 2 ♂, 1 ♀; Canal Zone, near Panama,² 2 ♂; near Lion Hill, 1 ♂, 1 ♀; Line P. R. R.,² 1 ♂.

Odontophorus guianensis buckleyi.—COLOMBIA: Buena Vista, 1 ♂; La Morelia, 1 ♂. ECUADOR: Rio Suno, 4 ♂, 3 ♀; below San José, 2 ♀. PERU: Puerto Indiana, mouth of the Napo, 1 ♂, 1 ♀. BRAZIL: Tonantins, left bank of the Solimões,¹ 2 ♂, 1 ♀.

Odontophorus guianensis pachyrhynchus.—PERU: Chanchamayo,³ 1 ♀.

In order to determine the status of the form here described I have examined all the specimens of the group in the American Museum and I am indebted to the Carnegie Museum, the Museum of Comparative Zoölogy, and Field Museum for the loan of others. While this material is not sufficient to permit of a thorough review of the races of *Odontophorus guianensis* it does warrant the presentation of some provisional conclusions.

This species varies so greatly both in color and pattern that local series are required to distinguish racial from individual variation. For example: four males and five females of *O. g. buckleyi* from the Rio Suno, eastern Ecuador, in the general tone of the underparts, vary from gray to Dresden brown, the latter prevailing; while the range in pattern below is from nearly uniform Dresden brown to that color strongly barred with black and ochraceous-buff.

Eight males and four females from eastern Panama show nearly as wide variation in pattern but less in color, the prevailing color being richer than in *buckleyi*, nearer antique brown. The color and pattern of the throat and color of the sides of the head, which furnish the principal diagnostic markings, are also subject to much variation. The need of series, then, in determining the races of this species is obvious.

Heretofore,⁴ when dealing with this group, I have had but one specimen from the "Bogotá" region. It does not agree with two specimens from western Colombia (Puerto Valdivia), and while the latter are more nearly like Gould's description of *marmoratus*, they were taken so far from the Bogotá region that I was uncertain whether they or my single specimen from Buena Vista, east of Bogotá, represented true *marmoratus*. Thanks to Mr. Todd, I am now in possession of three specimens from the eastern Andes (Palmar, Boyaca, and El Tamber, Santander) which agree with Gould's description in having the "ear-coverts reddish chestnut" and I think that they may safely be considered

¹Coll. Carnegie Museum.

²Coll. Mus. Comp. Zoöl.

³Coll. Field Mus.

⁴1915, Bull. Amer. Mus. Nat. Hist., XXXIV, p. 363; 1917, XXXVI, p. 200.

topotypical of his *marmoratus*. These specimens are much alike in color and markings but if, as seems probable, the species is as variable in the region whence they came as our series shows it to be in other parts of its range, they represent only one phase of the color and markings of topotypical *marmoratus*. Nevertheless, even with this restriction, they lead to conclusions quite at variance with those now current. They show that the Buena Vista bird, provisionally referred to *marmoratus*, is not that race. They show also, in my opinion, that the bird of the Canal Zone, for which I have proposed the name *Odontophorus guianensis panamensis*, is not separable from *marmoratus*. All three east Andean birds have the white chin and white-marked throat heretofore supposed to be characteristic of Panama birds, and in other respects they can be matched by my four adults from the Canal Zone. One of the two Santander specimens is, indeed, practically a duplicate of the type of *panamensis*.

If east Andean and Canal Zone specimens are alike, we should expect to find that birds from the intervening area are also referable to *marmoratus*. This quail is a bird of the humid Tropical Zone, where, as an inhabitant of primeval forest, its habitat does not differ greatly in character with locality, and doubtless for this reason its races usually range over extensive territories.

Unfortunately, as I have said, my topotypical series is too small to show the wide range of individual variation exhibited by this species. I turn, therefore, to the evidence presented by other specimens. For example, a male from Santa Elena, near the head of the Gulf of Maracaibo, Venezuela (Carnegie Mus. No. 90727), has the underparts heavily and evenly barred, there is a tint of rufous on the chin, the throat is more gray than white, the gray mantle is broadly barred with black. Seen alone, both its markings and locality would indicate its racial difference from *marmoratus*, but it is almost exactly duplicated by a female from Murindo, Antioquia, western Colombia (Carnegie Mus. No. 64364). When we also discover that a male from Sautata, Rio Atrato, western Colombia (Carnegie Mus. No. 63929) agrees with the Santander specimens and is thus typical of *marmoratus*, we must conclude that only one race occupies the region from the Maracaibo basin to western Colombia.

There remain the birds from eastern Panama. Mr. Griscom has described his specimens from Cana as *Odontophorus guianensis chapmani*; but while he mentions the intermediate characters of a specimen from El Real, he refers it to "*panamensis*." But Cana and El Real are both in the Tropical Zone and separated by only twenty-five miles. It

is difficult to believe that specimens of this species from these two localities would be separable. Indeed, with four of Mr. Griscom's Cana specimens and his El Real specimen, together with eleven additional specimens from eastern Panama before me, I can distinguish only one race. The question is, what are the affinities of these birds? Mr. Griscom's reference of specimens from El Real, Mt. Sapo, and Jesusito to "*panamensis*" indicates their close resemblance to the Canal Zone bird, and turning in the other direction, I can match numbers of specimens from eastern Panama in the series from western Colombia. I do not find among these eastern Panama specimens any as light-colored as the three topotypes of *marmoratus* and this fact prevents me from reaching a wholly satisfactory conclusion concerning their relationships. I have no doubt, however, that they represent but one form, and if this form is separable from *marmoratus* it presumably divides the range of this race, for certainly my small series of birds from the East Andes and Canal Zone is not separable. For the present, therefore, I should recognize only *marmoratus*, accord it a range from Maracaibo to the Canal Zone and synonymize with it *panamensis* Chapman¹ and *chapmani* Griscom.² I have not seen the type and only recorded specimen of *polionotus* Osgood and Conover,³ from the west side of Maracaibo, but the characters ascribed to it and the colored plate illustrating it in connection with the facts above stated suggest that, like the specimen from near the southern end of Maracaibo, it is also referable to *marmoratus*.

Turning now to the Buena Vista specimen, comparison of it with the three Carnegie Museum birds, which I consider topotypical of *marmoratus*, shows that it is obviously not that race. With this question settled, it seems clear, that together with a bird from La Morelia in south-eastern Colombia, it is not separable from *O. g. buckleyi* of eastern Ecuador south to the Marañon, and eastward, possibly, to the upper Rio Negro. Thanks to Director S. C. Simms, I have received from the Field Museum a specimen from Chanchamayo, eastern Peru, topotypically representing *pachyrhynchus* Tschudi. In this instance it requires only a single specimen to show that *buckleyi* Chubb is wholly distinct from the form of eastern Peru south of the Marañon. The eastern Ecuador form is the grayest of the known races. In its extreme development the chin and throat are uniform gray or brownish gray unmarked, but the chin, and sometimes the whole throat, is faintly barred but not as strongly marked as in *marmoratus*, and not one of my series of sixteen specimens ap-

¹1915, Bull. Amer. Mus. Nat. Hist., XXXIV, p. 363.

²1929, Bull. Mus. Comp. Zool., LXIX, p. 153.

³The Auk, 1927, XLIV, p. 561.

proaches the single specimen of *pachyrhynchus* in its rich chestnut throat, chin and cheeks. The latter, indeed, differs from true *guianensis* only in its somewhat darker upperparts, especially darker crown, slightly paler lowerparts and redder throat. In the latter respect it resembles our Santarem specimen (Amer. Mus. No. 36492). The two birds are, indeed, enough alike to be referred to the same race, but beyond this statement I do not venture, except to add that should there prove to be a form from the southern side of the Amazon, referred by Hellmayr to true *guianensis*, *rufina* (Spix) might be the name for it. Measurements show that the male averages larger than the female but reveal no constant geographic variation in size, though the bill in *marmoratus* may be slightly smaller.

Otus choliba duidæ, new subspecies

SUBSPECIFIC CHARACTERS.—Darker than any known member of either the *choliba* or *asio* group; the prevailing color of the upperparts black, with vermiculations and broken markings of shades of buff and ochraceous-buff; underparts heavily striped and closely barred with black, the basal half, more or less, of the feathers ochraceous-buff, giving a pronounced suffusion of this color.

TYPE.—No. 245,914, Amer. Mus. Nat. Hist., ♂ ad.; Mt. Duida, Venezuela, 5000 ft.; January 3, 1929; Olalla Bros.

SPECIMENS EXAMINED

Otus choliba duidæ.—VENEZUELA: Mt. Duida, 4700 ft., 2; 5000 ft., 2.

Otus choliba choliba.—ARGENTINA: Santiago del Estero, 1; Embarcacion, 1.

Otus choliba decussatus.—BRAZIL: Chapada, Matto Grosso, 4; Veruga, S. Bahia, 1; Boa Nova, Bahia, 1; Santa Rita, Bahia, 3; Bahia, 2; Floriano, Piahy, 1; ?São Paulo, 1 (richly colored).

Otus choliba crucigerus.—PERU: Santa Ana, Urubamba, 2; Lagarto Alto, Ucayali, 1. ECUADOR: Curaray, 1. COLOMBIA: Villavicencio, 1; Anolaima, 4; Dabeiba, Antioquia, 1. VENEZUELA: Mérida region, 9; Esmeralda, Orinoco, 1; Ft. Duida, 725 ft., 1; Caicara, Orinoco, 1; Bolivar, Orinoco, 1. B. W. I.: Trinidad, 3.

This is, I believe the first zonal form of *Otus choliba* to be described as such, though it is not improbable that the large *ingens* Salvin, from Jima, Ecuador, may be a Temperate Zone representative of this species. We have two specimens of *crucigerus* from the region at the base of Duida, which show no approach to *duidæ*. Lacking topotypical specimens of *crucigerus* and also of *choliba*, I am unable to identify much of our material satisfactorily. Our four specimens of *duidæ* agree closely and, in the heavy black markings below, they are nearer to three birds from northern Argentina than to any others; but whether these Argentina birds are true *choliba*, I am unable to say. Three examples

from Chapada, Matto Grosso, agree in color and size (♂: wing, 155–157; tail, 82–83 mm.) with the small, comparatively pale and lightly marked *decussatus*, of which we have an excellent topotypical series. A fourth Chapada specimen resembles the others in size but is in an extreme ochraceous-tawny phase of plumage. The rest of our South American specimens of this species I provisionally refer to *crucigerus*.

THE *Glaucidium brasilianum-nanum* GROUP

In determining the relationships of the form of *Glaucidium brasilianum* inhabiting the upper life-zone on Mt. Duida, I have of necessity examined our large series of this group and I present here some of the results of this study including the description of a very distinct form from the upper Amazon which, because of the wide variation prevailing among these owls, has heretofore been confused with true *brasilianum*.

Glaucidium brasilianum duidæ, new subspecies

SUBSPECIFIC CHARACTERS (brown phase).—Upperparts more richly colored than in the other races of this group, varying from Saccardo's umber (one specimen) to warm olive-brown (three specimens), nearly as dark as some specimens of *G. jardini*; all five specimens with as much black in the nuchal ring as *jardini*; back immaculate without even concealed markings; crown from bill to nape with fine white or ochraceous shaft-streaks; tail black with five white, incomplete bars, exclusive of rudimentary basal bar and tip; rictal bristles and ear-coverts largely black; Saccardo's umber markings of underparts of about the same shade as in the corresponding phase of *b. brasilianum*, but much more extensive, occupying a greater area than the white markings and almost meeting on the breast to enclose a white chest-spot. Five males: wing, 95–101; tail, 55–62 mm.

TYPE.—No. 245,915, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 4700 ft.; February 22, 1929; Olalla Bros.

RANGE.—Subtropical Zone, Mt. Duida, Venezuela.

In some respects this very distinct zonal race is between *brasilianum* and *jardini*, a fact which suggests that the latter may also be a zonal representative of *brasilianum*. The round spots on the crown which characterize *jardini* are not a constant marking, for we have specimens from Baeza, eastern Ecuador (1), and Mérida, Venezuela (3), in which the crown is more finely streaked than in the average specimen of *brasilianum*. I am not sure, indeed, that the Mérida bird is not separable.

It is interesting to observe that the zonal form of *brasilianum* in northern Argentina, *G. b. tucumanum* from Rosario de Lerma (4800 ft.), Salta, is also a deeply colored race, the upperparts being fuscous with barely a tint of brown. In our three specimens of this bird, however, there is almost no indication of black in the nuchal band and the crown-

stripes are mere hair-lines. As in *duidæ*, the back in *tucumanum* is unmarked, but so great is the variation in this group it by no means follows that an immaculate back is a constant characteristic of either of these two races.

***Glaucidium brasilianum ucayalæ*, new subspecies**

SUBSPECIFIC CHARACTERS (red phase, 11 specimens. No gray phase?).—Upper-parts bright argus brown, crown uniform with back, shaft-streaks barely evident or wholly absent; nuchal collar with more or less black; tail somewhat brighter than back, bars poorly developed or almost wanting; darker markings below of about the same color as the back, as heavily developed as in *G. b. duidæ*. 3 ♂: wing, 98–106, tail, 59–62. 5 ♀: wing, 99–106; tail, 58–65 mm.

(Brown phase, 2 specimens).—Less rufescent than red phase, Brussels brown rather than argus brown; shaft-stripes present as hair-lines; tail like back, the black bars faint but complete, markings below the same color as back, and of same extent as in red phase. Averaging slightly larger than *brasilianum*.

TYPE.—No. 237,712, Amer. Mus. Nat. Hist.; ♂ ad.; Sarayacu, Rio Ucayali, Peru; April 19, 1927; Olalla Bros.

RANGE.—Eastern base of eastern Andes from southeastern Colombia to Peru.

Glaucidium brasilianum is a bird of open, scattered growth rather than of heavy forests. We have a large series from the arid Tropical Zone in western Ecuador, but have yet to take a single specimen in eastern Ecuador. From the banks of the Marañon and Ucayali the Olallas have recently sent us a series of a strongly marked form which in its rich, saturated colors appears to express the influences of the humid region in which it lives. Here, also, obviously belongs a specimen from southeastern Colombia, the rich color of which has long excited my interest.

The range of this race is evidently bounded on the west by the extent of the humid Tropical Zone, for as soon as we reach the arid tropics at the Rio Chinchipe in the lower Marañon Valley, we find a bird I am unable to separate from true *brasilianum*. This race is apparently, therefore, segregated in western Ecuador and western Peru from the main area it occupies. In tracing its range southwest in western Peru I have encountered the question of its relationships to *Glaucidium nanum*. Hence, the following notes.

Compared with *Glaucidium b. brasilianum*, the characters of *Glaucidium nanum nanum* (King) and *G. n. vafrum* Wetmore, as shown by 20 specimens, are greater extent of the dark markings below (in this respect resembling *duidæ*), and heavy spotting on the sides of the breast (present in *jardini* but not (?) in *duidæ* and only rarely in *brasilianum*);

while in the brown, as well as rufous phase of plumage, the tail is barred with rufous instead of black barred with white.

While I fully agree with Dr. Wetmore that it is highly probable *brasilianum* and *nanum* will be found to intergrade, my material does not demonstrate this intergradation. East of the Andes I have no material south of northern Argentina, but on the Pacific Coast we have a female of *G. n. vafrum* from Moquegua, in southwestern Peru, which is wholly typical of this form, the black tail-bars being double the width of the rufous ones (wing, 107; tail, 76 mm.). Two males from Vitor, Province of Arequipa, about 85 miles northwest of Moquegua, are equally typical of true *brasilianum* (wing, 97.98; tail, 65.68 mm.), the rufous bars in the tail being wider than the black ones, and from this point *brasilianum* occurs northward at least to Ecuador. If between Moquegua and Vitor these forms intergrade, their fusion is doubtless accomplished by the hybridization of a mutant with the parent stock rather than by gradual merge through climatic conditions.

SPECIMENS EXAMINED

Glaucidium brasilianum duidæ.—VENEZUELA: Mt. Duida, 3250 ft., 1 ♂; 4700 ft., 3 ♂; 5000 ft., 1 ♂.

Glaucidium brasilianum tucumanum.—ARGENTINA: Rosario de Lerma, 4800 ft., 3.

Glaucidium brasilianum brasilianum.—ARGENTINA: Santiago del Estero, 2 (brown), 2 (gray). BRAZIL: Matto Grosso, 4 (red), 5 (brown); Bahia, 4 (red), 2 (brown), 2 (gray); Maranhão, 3 (red), 1 (gray); Ceará, 1 (red). WESTERN ECUADOR, 9 (red), 15 (brown), 5 (gray). PERU: Prov. Piura, 6 (red), 4 (brown), 1 (gray); Huancabamba, 2 (gray), 2 (brown); Rio Chinchipe, 2 (brown), 2 (gray); Poroto, La Libertad, 3 (red), 1 (gray); Pisco, 1 (red); Vitor, Arequipa, 2 (red); Ollantaytambo, Urubamba, 9700 ft., 1 (gray; typical).

Glaucidium brasilianum ucayalæ.—PERU: Santa Rosa, upper Ucayali, 1 (red); Sarayacu, Ucayali, 4 (red); Rio Seco, near Moyobamba, 1 (brown); Orosa, Marañon, 2 (red); Puerto Indiana, Marañon and Napo, 3 (red); Apiyacu, near Pebas, Marañon, 2 (red), 1 (brown). COLOMBIA: Florencia, 1 (red).

Glaucidium brasilianum phalzenoides.—B. W. I.: Trinidad, 4 (red), 1 (brown), 3 (gray). VENEZUELA: Cristobal Colon, 1 (red), 1 (gray); Cumanacoa, 2 (red); El Cuji, Lara, 2 (gray?); Ayacucho, Orinoco, 1 (brown).

Glaucidium brasilianum medianum.—COLOMBIA: Bonda, Sta. Marta, 2 (red), 3 (brown), 1 (gray); Barranquilla, 1 (gray).

Glaucidium nanum nanum.—CHILE: Tierra del Fuego, 1 (gray); Punta Arenas, 2 (gray); Angol, 2 int. (gray); Temuco, 4 int. (red).

Glaucidium nanum vafrum.—CHILE: Santiago region, 5 (brown), 4 (gray); Rio Blanco, 1 (gray); Tofo, 1 (gray). PERU: Moquegua, 1 (brown).

Touit purpurata viridiceps, new subspecies

SUBSPECIFIC CHARACTERS.—Resembling *Touit purpurata purpurata* (Gmelin) of Cayenne but entire crown, nape and sides of the head green, like the back; yellow

of the sides slightly deeper; size, including bill, somewhat larger. 5 ♂: wing, 118-126; tail, 48-53; culmen, 18-20 mm.

TYPE.—No. 245,916, Amer. Mus. Nat. Hist.; ♂ ad.; Savanna Grande, 330 ft., southeastern base of Mt. Duida, Venezuela; February 4, 1929; Olalla Bros.

SPECIMENS EXAMINED

Touit purpurata viridiceps.—VENEZUELA: southeastern base of Mt. Duida, 330-725 ft., 5 ♂.

Touit purpurata purpurata.—FRENCH GUIANA: Mana River, 1 ♀. BRITISH GUIANA: Merumé Mts., 1 ♂ (new subsp. ?). No locality, Maximilian Coll., 1 ♂.

This form differs so greatly from true *purpurata* that I should be inclined to accord it specific rank were it not for the characters presented by a male from the Merumé Mts. in British Guiana. In this bird the forehead and nape are green, leaving only the center of the crown brown, of the same color as in the crown of *purpurata*. It is, therefore, fairly intermediate between the Cayenne and Duida forms but, if its characters are constant, it differs sufficiently from both to stand as a third race. However this may be, it certainly indicates the intergradation of the brown with the green-headed form.

DUIDIA, new genus

GENERIC CHARACTERS.—A member of the subfamily Micropodinae, the outer toe with three phalanges, but tarsus nearly bare, and hind toe, as in other American members of this subfamily, more directly apposed to front toes than in the European genera of Micropodinae; bill broader than long; tail but slightly forked, the rectrices broad and obtusely pointed; wing about two and a half times the length of tail.

TYPE.—*Duidia tatei*, new species.

Duidia tatei, new species

SPECIFIC CHARACTERS.—Not closely resembling any described species, general plumage shining bluish black, the throat, a ventral patch, and the tips of the rectrices white.

TYPE.—No. 245,939, Amer. Mus. Nat. Hist.; ♂ ad.; High Point Camp, Mt. Duida, Venezuela, 7100 ft.; January 12, 1929; G. H. H. Tate.

DESCRIPTION OF TYPE.—General color, including wings and tail, upper and lower wing- and tail-coverts, shining blue-black; throat, upper breast, abdominal patch, and a thin, broken, partly concealed line connecting them, white; ends of central rectrices grading from black into grayish white tips about 6 mm. wide, the three outer pairs of rectrices terminally margined with white decreasing in amount from within outward, two inner tertials in each wing narrowly tipped with white; feathers at the bend of the wing narrowly tipped with white. Anteorbital region grayish; auriculars brownish; feet brownish; bill black. Length (skin), 127; wing, 112; tail, to end of longest feather, 44, to end of shortest, 35.5; tarsus, 8; exposed culmen, 5; width of maxilla at nostril, 6 mm.

Our single specimen of this interesting new bird was shot by Mr. Tate on the summit of Mt. Duida and it is therefore particularly fitting that it should be named in his honor and in recognition of his labors as the leader of the Tyler Duida Expedition.

In its white throat, central white line below, and white-tipped inner wing-feathers the markings of this species suggest those of *Aëronautes melanoleucus*; the shape of the tail is also as in that species. The single feather on each tarsus may be the remains of a more feathered condition, but no other trace of feathers is now evident.

In the dried skin I find that the hind toe in all the American Micropodinae tends to assume a position facing the front toes, much as in the Chæturinae; whereas in skins of the Old World Micropodinae the hind toe is inclined to range itself, if not with the front toes, certainly not apposed to them.

The fact that this is the second new genus of swifts to be described from Venezuela within the past two years indicates our comparative ignorance of those American tropical birds whose haunts are largely restricted to the upper air.

Doryfera johannæ dissita, new subspecies

SUBSPECIFIC CHARACTERS.—Similar to *Doryfera johannæ johannæ* (Bourcier) of eastern Colombia to northeastern Peru, but smaller with a shorter bill; forehead in the male averaging bluer, less purple; underparts in the female darker and less washed with green; rump and upper tail-coverts in both sexes with less bluish gray.

TYPE.—No. 245,917, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 4700 ft.; January 16, 1929; Olalla Bros.

SPECIMENS EXAMINED

Doryfera johannæ dissita.—VENEZUELA: Mt. Duida, foot of Duida, 750 ft., 1 ♂; 2000 ft., 1 ♀; 2250 ft., 1 ♀; 3250 ft., 1 ♀; 4200 ft., 1 ♂; 4700 ft., 3 ♂, 3 ♀; 5000 ft., 1 ♂, 1 ♀; Mt. Roraima, 4200 ft., 1 ♀.

Doryfera johannæ johannæ.—ECUADOR: below San José de Sumaco, 6 ♂, 6 ♀. COLOMBIA: Bogotá, 3 ♂, 3 ♀; "New Grenada," 1 ♂ ("type").

MEASUREMENTS OF MALES

	No.	Wing	Tail	Culmen
<i>D. j. dissita</i> , 4200–5000 ft., Mt. Duida	4	53–55	27–29	24–27 mm.
<i>D. j. johannæ</i> , below San José de Sumaco	5	57–58	29–31	30–32.5

Doryfera johannæ is known chiefly from the Subtropical Zone. Stolzmann¹ states that at Huambo, Peru, he did not find it below 3700

¹Orn. Pérou, I, p. 286.

feet; most Ecuadorean and Colombian records are from the Andes, while in Guiana it is known only from Mt. Roraima and the Merumé Mts. In Ecuador, however, we have ten specimens from below San José de Sumaco, which, judging by other birds found there, is in the Tropical Zone; and on Mt. Duida a single specimen was taken at the foot of the mountain and two at from 2000 to 2250 feet and hence in the Tropical Zone. While there are no records for this species from between Duida and the Andes, a distance of about 1000 miles, it may possibly occur there.

Campylopterus duidæ, new species

SPECIFIC CHARACTERS.—Most nearly related to *Campylopterus rufus* Lesson of the highlands of Guatemala and *C. hyperythrus* Cabanis of Mt. Roraima, but underparts drab, the tail basally bronze.

TYPE.—No. 245,919, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 5000 ft.; January 7, 1929; Olalla Bros.

DESCRIPTION OF MALE.—Upperparts shining green with bronze reflections increasing in strength posteriorly, the upper tail-coverts being greenish bronze; four central rectrices bronze; outer three pairs apically deep ochraceous-buff, dull bronze at the base, this color occupying nearly half the outer pair, slightly more on the succeeding pair and about three-fourths of the third pair; wing-quills and their greater coverts purplish black; lesser coverts bronzy green; bend of the wing and axillars ochraceous-tawny; lower wing-coverts shining green more or less tipped with tawny; a small whitish postocular spot; lores more or less heavily suffused with ochraceous-tawny; prevailing color of the underparts drab tinted with ochraceous-tawny most strongly on the sides and flanks; lower tail-coverts pale ochraceous-buff; feet brownish black; bill black; the mandible usually paler basally. 5 ♂: wing, 66–69; tail, 46–48; culmen, 25–28 mm.

DESCRIPTION OF FEMALE.—The female resembles the male in color but the shafts of the outer primaries are not enlarged and curved. Five females: wing, 64–65; tail, 44–45; culmen, 26–29 mm.

SPECIMENS EXAMINED

Campylopterus duidæ.—VENEZUELA: Mt. Duida, 2250 ft., 1; 3250 ft., 1; 4700 ft., 3; 5000 ft., 6; 6200 ft., 2; 6700 ft., 3.

Campylopterus rufus.—GUATEMALA, 2.

Campylopterus hyperythrus.—VENEZUELA: Mt. Roraima, 6.

Apparently a representative of the Roraiman species *C. hyperythrus* but in its marked tail it more nearly resembles the Guatemalan *C. rufus*.

Saucerottea cupreicauda duidæ, new subspecies

SUBSPECIFIC CHARACTERS.—Resembling *Saucerottea viridigaster viridigaster* (Bourcier and Mulsant) of the Bogotá region in having the rectrices essentially uniform, but rich bronze (like central rectrices of true *cupreicauda*) instead of dark livid purple or naphthalene violet; the lower back, rump and upper tail-coverts golden bronze,

green below extending farther back on the abdominal region, lower tail-coverts ochraceous-tawny only slightly paler than in true *cupreicauda*. Resembling *Saucerottea cupreicauda cupreicauda* (Salvin and Godman) of Mt. Roraima, but general coloration less golden green, tail in fresh plumaged adults, nearly uniform in color; in post-juvenile plumage all but the central rectrices narrowly tipped with tawny.

TYPE.—No. 245,940, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 4700 ft.; December 21, 1928; Olalla Bros.

SPECIMENS EXAMINED

Saucerottea cupreicauda duidæ.—VENEZUELA: Mt. Duida, 4200 ft., 2 ♀; 4700 ft., 3 ♂, 4 ♀; 5200 ft., 1 ♂, 1 ♀.

Saucerottea cupreicauda cupreicauda.—VENEZUELA: Mt. Roraima, 3500 ft., 1 ♂; 4200 ft., 4 ♂, 4 ♀; 6000 ft., 1 ♀.

Saucerottea viridigaster viridigaster.—COLOMBIA: "Bogotá," 4, including melanistic type of *incultus* Elliot; Quetame, 2 ♂, 2 ♀; Buena Vista, 3 ♂, 1 ♀; Villavicencio, 1 ♀. (Our specimens with exact locality are all from the eastern slope of the East Andes, while Fusugasugá, the type-locality of *viridigaster*, is on the western slope of this range. *Saucerottea v. melanura* Simon from the Bogotá region is probably based on individual variation, just as *incultus* Elliot is based on melanism. *S. v. iodura* Reichenbach, from the Mérida region, I have not seen.)

This is an intermediate between the Andean and Roraiman races, resembling the former in pattern but nearer the latter in color. In the adult of true *cupreicauda* the four central tail-feathers are bronze, sometimes tinged with purple apically, the lateral feathers are hazel or cinnamon-rufous with a purplish bronze tip increasing in extent from without inwardly. In adult *duidæ* all the rectrices are bronze, essentially like the central ones. In worn plumage, however, the exposed central pair becomes duller. In *viridigaster*, *cupreicauda* and *duidæ* freshly plumaged birds have the rump and upper tail-coverts widely fringed with ochraceous-tawny and all but the central rectrices narrowly tipped with cinnamon-rufous.

WALDRONIA, new genus

GENERIC CHARACTERS.—Resembling *Polytmus tharumantias* in the slenderness and curvature of the bill and feathering of the interramal space but tomia without a trace of serrations; rectrices broader, their tips obtuse, or bluntly pointed, rather than evenly rounded. Resembling *Smaragdites theresiæ*, but feathers on interramal space extending farther forward, tail more rounded; outer tail-feathers 8–10 mm. shorter than longest; the rectrices more pointed.

TYPE.—*Waldronia milleri*, new species.

Waldronia milleri, new species

SPECIFIC CHARACTERS.—General color green, all but central pair of rectrices broadly white basally and sharply and conspicuously tipped with white.

TYPE.—No. 245,918, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 4700 ft., Feb. 13, 1929; Olalla Bros.

DESCRIPTION OF MALE.—Crown greenish bronze; back and upper tail-coverts the same, but the feathers narrowly edged with glittering green, exposed part of central pair of rectrices deep glittering green with bronze reflections; remaining rectrices green, of same shade as the central pair, the outer pair snowy white for the basal half and terminal 4–5 mm.; the basal white increasing on the succeeding rectrices; the apical white narrower on the rectrices next the central pair, approximately the same in extent on the others; wing-quills and larger coverts purplish black, lesser and lower coverts and bend of the wing green; a small white postocular spot; throat and breast glittering green of much the same color as in *Polytmus thaumantias*; white bases of feathers more or less exposed on the throat and chin; abdomen more or less margined with white; lower tail-coverts bright green, the tips and base white; feet and bill black. 5 ♂: wing, 65–67; tail, 40–43; exposed culmen, 23–24 mm.

DESCRIPTION OF FEMALE.—Similar to male but underparts less solidly green, the basal white of the feathers more evident. 5 ♀: wing, 62–65; tail, 39–42; exposed culmen, 23–24 mm.

SPECIMENS EXAMINED

Waldronia milleri.—VENEZUELA: Mt. Duida, 4200 ft., 1 ♂; 4700 ft., 8 ♂, 9 ♀; 6600 ft., 3 ♂, 4 ♀.

Polytmus thaumantias.—21.

Smaragdites theresiæ.—11.

This species bears a general resemblance to the male of *Polytmus thaumantias* in both its general color and the pattern of the tail, but the absence of tomial serrations and the similiarity of the sexes are pronounced differences.

I have dedicated both this genus and species to the memory of my late associate, Mr. Waldron DeWitt Miller, in whose death this museum has sustained an irreparable loss.

Lophornis pavoninus duidæ, new subspecies

SUBSPECIFIC CHARACTERS.—Similar to *Lophornis pavoninus pavoninus* Salvin and Godman, of the Merumé and Roraima Mts., British Guiana, but adult male with black vertical crown-stripe about half as wide, anteriorly narrower, rather than as wide as, or wider, than the culmen; the black throat washed with green to the base of the mandible; female with the feathers of the throat not margined with black laterally, the sides with little or no green.

TYPE.—No. 245,920, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 4700 ft.; Feb. 8, 1929; Olalla Bros.

SPECIMENS EXAMINED

Lophornis pavoninus duidæ.—VENEZUELA: Mt. Duida, 4700 ft., 1 ♂, 1 ♀; 5000 ft., 1 ♀.

Lophornis pavoninus pavoninus.—BRITISH GUIANA: Mt. Roraima, 3000 ft., 3 ♂ ad.; 1 ♂ im.; 1 ♀ (all but one ♂ ad. in Mus. Comp. Zoöl.).

The constancy of the differences between Guiana and Duida birds shown by our specimens is further indicated by descriptions of *pavoninus*

pavoninus which I have consulted. All of them speak of the black throat of the male, the streaked throat and green sides of the female.

***Trogon personatus duidæ*, new subspecies**

SUBSPECIFIC CHARACTERS.—Agrees with *Trogon personatus roraimæ* Chapman, of the Subtropical Zone on Mt. Roraima, and differs from the Andean races of *prersonatus* in having the central rectrices deep coppery bronze, but differs from *roraimæ* in having the three outer pairs of rectrices more narrowly marked with white, the inner portion of the inner webs of at least the second and third pairs mottled, not definitely barred with white.

TYPE.—No. 245,923, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, alt. 2250 ft.; Dec. 20, 1928; Olalla Bros.

SPECIMENS EXAMINED

Trogon personatus duidæ.—VENEZUELA: Mt. Duida, 2250 ft., 2 ♂, 1 ♀; 4200 ft., 3 ♂; 5000 ft., 1 ♂.

Trogon personatus roraimæ.—VENEZUELA: Mt. Roraima, 5000–6800 ft., 3 ♂.

Trogon personatus personatus and *personatus assimilis*.—VENEZUELA: Mérida region, 2 ♂. COLOMBIA AND ECUADOR, 9 ♂, 9 ♀.

The relationships of this race are evidently with the Roraiman instead of Andean forms. Its occurrence at as low an altitude of 2250 feet is exceptional for a subtropical species on Duida. We have also found *Trogon collaris collaris* at our 2250-foot camp and as high as 5000 feet.

***Aulacorhynchus derbianus duidæ*, new subspecies**

SUBSPECIFIC CHARACTERS.—Similar to *Aulacorhynchus derbianus whitelyanus* (Salvin and Godman) of the mountains of British Guiana, but upperparts and particularly tail, yellow green, the central rectrices more broadly tipped with chestnut.

TYPE.—No. 245,924, Amer. Mus. Nat. Hist.; ♂ ad.; Aguita, alt. 3250 ft., Mt. Duida, Venezuela; January 2, 1929; Olalla Bros.

SPECIMENS EXAMINED

Aulacorhynchus derbianus duidæ.—VENEZUELA: Mt. Duida, 2250 ft., 1; 2700 ft., 1; 3250 ft., 7; 4700 ft., 5.

Aulacorhynchus derbianus whitelyanus.—VENEZUELA: Mt. Roraima, 4000–4200 ft., 2.

Aulacorhynchus derbianus derbianus.—Eastern ECUADOR, 5.

This species is apparently a representative of *A. d. derbianus* of the Subtropical Zone of eastern Ecuador and eastern Peru. The Duida form has the broader tail tip of the Ecuador bird and is thus, to this extent, intermediate between true *whitelyanus* and *derbianus*. In the greener tail it differs from either, in other respects it agrees with *whitelyanus* and differs from *derbianus* in having the maxilla redder, no blue nuchal band (though some specimens show a trace of blue on the nape),

while the faint tinge of blue below is on the breast instead of at the posterior margin of the throat-patch, which is not so pure white.

Taraba major duidæ, new subspecies

SUBSPECIFIC CHARACTERS.—Resembling *Taraba major semifasciatus* (Cabanis) of the Tropical Zone of northeastern south America, including the region at the base of Mt. Duida, but bill averaging larger, the wing longer, the tail apparently always longer; the female darker above, the sides of the head blackish, the breast grayer and usually with black shaft-streaks; sides of the throat more or less washed and indistinctly barred with blackish. 4 ♂: wing, 97–99; tail, 84–87 mm. 5 ♀: wing,, 93–95; tail, 82–88 mm.

TYPE.—No. 245,925, Amer. Mus. Nat. Hist.; ♀ ad.; Mt. Duida, 6200 ft., Venezuela; Jan. 18, 1929; Olalla Bros.

SPECIMENS EXAMINED

Taraba major duidæ.—VENEZUELA: Mt. Duida, 4700 ft., 1 ♂, 1 ♀; 4800 ft. 1 ♂; 5000 ft., 1 ♂; 5200 ft., 1 ♂; 5500 ft., 1 ♂; 6200 ft., 2 ♀; 6600 ft., 1 ♂, 1 ♀.

Taraba major semifasciata.—VENEZUELA: base of Mt. Duida, alt. 325 ft.; 2 ♂, 3 ♀. Adequate series of this and other races.

Specimens from the base of Mt. Duida average slightly larger than others from elsewhere in the range of *semifasciata*, but in other respects agree with that race. Females of *transandeanana* from throughout the greater part of its range approach *duidæ* in their blackish loreal, ocular, and aural regions. I recall no previous records of *Taraba major* from above the Tropical Zone. Its ascent to the Subtropical Zone on Duida and evolution into a well-marked race is a particularly interesting demonstration of the origin of an upper zonal form from a contiguous basal ancestor.

Myrmothera simplex duidæ, new subspecies

SUBSPECIFIC CHARACTERS.—Closely resembling *Myrmothera simplex simplex* Salvin and Godman of Mt. Roraima but wash on breast, sides and flanks more rufescent, less olivaceous and heavier; the tarsi longer, 45 instead of 40 mm.

TYPE.—No. 245,926, Amer. Mus. Nat. Hist.; ♂ ad.; Central Camp, 4800 ft., Dec. 28, 1928; G. H. H. Tate.

SPECIMENS EXAMINED

Myrmothera simplex duidæ.—VENEZUELA: Mt. Duida, 4800–6200 ft., 12.

Myrmothera simplex simplex.—VENEZUELA: Mt. Roraima, 5000–6000 ft., 2.

Myrmothera simplex is apparently a representative of *Myrmothera companiosoma* of the Tropical Zone of northern South America, east of the Andes. In the color of the upperparts it is nearest, indeed closely resembles, *M. c. companiosoma* of the Guianas and southward, but the breast is gray, unstreaked, and the mandible terminally black.

RORAIMIA, new genus

GENERIC CHARACTERS.—A member of the subfamily Margarornithinæ; tail strongly graduated, outer pair of feathers 35 mm. shorter than longest; rectrices 12, all acuminate, the central feathers sharply pointed, the shaft, in some specimens, nearly denuded for its terminal 3 or 4 mm.; wing about equal to tail in length, fourth and fifth primaries (from without) longest, the outer about 13 mm. shorter than second (from without); hind-toe with claw as long as middle toe with claw; culmen decurved. In color, combining some of the characters of *Margarornis* and *Premnoplex*; wing without a shoulder-patch; its coverts of the same color as quills externally.

TYPE.—*Synallaxis adusta* Salvin and Godman.

Roraimia adusta, the single species belonging to this genus, has hitherto remained in the genus *Synallaxis* in which it was placed by its original describers, but its possession of twelve, instead of ten, rectrices shows that in this respect it is nearer to *Cranioleuca*. It differs, however, from that genus, as well as from *Synallaxis*, in its strongly developed claws and particularly long hind toe. In the latter character, as well as in the shape of the rectrices and certain color characters, it agrees with *Premnoplex* and *Margarornis* and while not typical of this group is apparently to be placed in it rather than with the Synallaxinæ. The bill resembles that of typical *Cranioleuca* but the characters presented by the toes and tail and the pattern of coloration prohibit its being placed in that genus. The middle toe and claw are slightly shorter, instead of being slightly longer than the tarsus as in typical Margarornithinæ, but this character is not constant in that group. In short, while having no structural characters that are distinctively its own, this species is so unlike any known bird that we cannot speak with certainty of its exact relationships and hence cannot even speculate on its origin as a member of the Roraima-Duida fauna.

MEASUREMENTS

Sex	Culmen	Wing	Tail	Tarsus	Middle Toe and Claw	Hind Toe and Claw	Claw
♂	15.5	61	59	21	19	19	7.5 mm.
♂	16.	68	67	21	20	19	8.
♀	16.	64	64	21	17.5	18	7.
♀	16.	61	59	22	19.	19	8.

Mecocerculus nigrifrons, new species

SPECIFIC CHARACTERS.—Not closely related to any known species; nearer in color to the *stictopterus* group, in proportions, to the *setaphagoides* group; a broad black band across the forehead.

TYPE.—No. 245,928, Amer. Mus. Nat. Hist.; ♂ ad.; Savanna Hills, Mt. Duida tableland, 4400 ft., Venezuela; February 11, 1929; G. H. H. Tate.

DESCRIPTION (sexes alike in color).—A broad, black band across the forehead bordered anteriorly by white, antrorse, nasal bristles; crown gray or neutral gray; an indistinct white line extends from the forehead over the eyes; back oil-green; wings and tail fuscous margined externally with oil-green; greater and lesser coverts broadly tipped with greenish white; wing-lining white tinged with greenish; underparts grayish white obscurely streaked on the throat and breast; center of abdomen whiter; flanks, ventral region and under tail-coverts tinged with greenish yellow; feet and bill black. 3 ♂: wing, 61.5, 64, 66; tail, 60, 63, 63; tarsus, 20, 21, 22; culmen, 14, 14, 14 mm. 2 ♀: wing, 54, 56; tail, 53, 54; tarsus, 17.5, 18; culmen, 13, 13 mm.

SPECIMENS EXAMINED

Mecocerculus nigrifrons.—VENEZUELA: Mt. Duida, 4200 ft., 2 ♂, 2 ♀; 4400 ft., 1 ♂; 4700 ft., 1 ♀.

Specimens of remaining species of genus (except *M. minor*).

This species differs from the known species of *Mecocerculus* not only in color but in its combination of characters and may deserve generic distinction. While more nearly resembling the gray-headed members of the genus in color, in having the wing and tail of nearly equal length it is more like *setaphagoides*; while the rictal bristles are more highly developed and the primaries narrower than in either.

***Euscarthmornis duidæ*, new species**

SPECIFIC CHARACTERS.—A member of the *Euscarthmornis margaritaceiventer-impiger* group but rectrices wider, tail somewhat more rounded; not closely resembling any described species; upperparts practically uniform; throat and breast streaked; posterior underparts warm buff to pale orange-yellow.

TYPE.—No. 245,929, Amer. Mus. Nat. Hist.; ♂ ad.; Chorrera de Vegas, 4700 ft., Mt. Duida; Feb. 14, 1929; Olalla Bros.

DESCRIPTION OF MALE.—General tone of upperparts olive-fuscous, the crown darker, the rump more olive; tail fuscous externally margined with yellowish olive; wings fuscous; the coverts tipped, the inner quills margined with olive-buff; bend of the wing slightly yellower; under wing-coverts cream or maize; an ill-defined grayish loreal stripe; throat white, obscurely streaked with grayish, the streaks ending in a dusky breast area; remainder of underparts warm buff to pale orange-yellow, the sides and flanks washed with dusky olive; feet brownish; maxilla brownish black; mandible browner. 5 ♂: wing, 55–56; tail, 44–47; tarsus, 21; culmen, 14.5–15 mm.

DESCRIPTION OF FEMALE.—Resembles the male in color but is slightly smaller. 5 specimens: wing, 49–54; tail, 37–41; tarsus, 18.5–20; culmen, 14–14.5.

SPECIMENS EXAMINED

Euscarthmornis duidæ.—VENEZUELA: Mt. Duida, 4700 ft., 6 ♂, 4 ♀; 5000 ft., 2 ♂, 2 ♀; 6200 ft., 2 ♂; 6600 ft., 2 ♂, 2 ♀.

Euscarthmornis margaritaceiventer-impiger group. Adequate series.

The characters of this species are too distinctive to afford a clue to its immediate ancestry. The group to which it seems nearest is apparently not represented in the Guianas.

Elænea tyleri, new species

SPECIFIC CHARACTERS.—Most nearly resembling *Elænea dayi* Chapman, of Mt. Roraima, but colors throughout less saturated, the breast and sides tea-green and vetiver-green rather than citrine-drab; size generally larger, the tarsi and bill longer.

TYPE.—No. 245,927, Amer. Mus. Nat. Hist., ♀ ad.; Mt. Duida, Venezuela; 5000 ft.; January 11, 1929; Olalla Bros.

DESCRIPTION (sexes alike in color).—Upperparts dark grayish olive to olivaceous-black, the crown and tail darker than back; all but outer pair of rectrices narrowly margined externally with olivaceous and, in fresh plumage, all narrowly tipped with whitish; wings of approximately the same color as tail; the median and greater coverts broadly tipped with grayish white; the tertials externally margined with the same color or the color of the flanks; bend of wing and under wing-coverts much like flanks; throat and breast tea-green, paler on the throat; sides and flanks and lower tail-coverts yellower (vetiver-green); center of abdomen pale yellow (chartreuse-yellow); feet and bill black.

SPECIMENS EXAMINED

Elænea tyleri.—VENEZUELA: Mt. Duida, 4200 ft., 1; 4400 ft., 7; 5000 ft., 4; 5500 ft., 2; 6200 ft., 6; 6600 ft., 4; 7100 ft., 2.

Elænea roraimæ.—VENEZUELA: Mt. Roraima, 1 (type).

While this bird is evidently a representative of *Elænea dayi*, its marked differences, both in color and size, from that species warrant its recognition as a full species. The relationships of *dayi* to other members of the group were discussed in connection with its description.¹

It is a pleasure to dedicate this exceptionally interesting new bird to Mr. Sidney F. Tyler, Jr., whose coöperation made possible the expedition on which it was secured.

MEASUREMENTS

	Sex	Wing	Tail	Tarsus	Culmen	Longest Primary Longer Than Innermost
<i>Elænea dayi</i>						
Summit Roraima	♀	91	89	22	15	11 mm.
<i>Elænea tyleri</i>						
Duida, 4400 ft.	♀	93	89	24	17.5	12 mm.
" 5000 ft.	♀	94	89	24	17.5	11
" 6600 ft.	♀	95	92	25	17.5	11.5
" 4700 ft.	♂	99	93	26.5	17.5	10
" 5000 ft.	♂	99	94	27	18	12
" 6000 ft.	♂	101	93	27	17	11

¹1929, Amer. Mus. Novitates, No. 341, p. 3.

***Myiochanes fumigatus duidæ*, new subspecies**

SUBSPECIFIC CHARACTERS.—In general tone of color resembling *Myiochanes fumigatus ardosiacus* (Lafresnaye) but smaller, tail darker and with the outer vane of the outer pair of feathers fully as dark as the inner vane. 2 ♂: wing, 86, 88; tail, 75. 2 ♀: wing, 82, 85 tail, 71, 72 mm.

TYPE.—No. 245,930, Amer. Mus. Nat. Hist.; ♂; Mt. Duida, Venezuela, 4400 ft.; February 9, 1929; G. H. H. Tate.

SPECIMENS EXAMINED

Myiochanes fumigatus duidæ.—VENEZUELA: Mt. Duida, 4200 ft., 1; 4400 ft., 1; 4700 ft., 2.

Myiochanes fumigatus ardosiacus and *M. f. zarumæ*.—Adequate topotypical series (see Amer. Mus. Novit., No. 138, 1924, p. 4).

Myiochanes f. cineraceus.¹—VENEZUELA: Cerro del Avila (topotype), 1; Cumbre de Valencia, 1; Lagunita de Aroa, 4.

This is doubtless the form recorded from Roraima and Twek-quay, British Guiana by Chubb² as *Horizopus ardesiacus*. Hellmayr³ states that two worn Guianan specimens are inseparable from *M. f. zarumæ*, a resemblance doubtless due to the condition and age of the skins. The four Duida birds are darker than *zarumæ*, the abdomen, as in typical *ardosiacus*, being practically as dark as the breast. While the character of a whitish outer vane on the outer pair of rectrices is most highly developed in *cineraceus* it is by no means wanting, at least on the outer margin of the vane, in topotypical *ardosiacus*. In *duidæ*, however, there is not even the slightest indication of paling on this vane.

***Chloropipo uniformis duidæ*, new subspecies**

SUBSPECIFIC CHARACTERS.—Closely resembling *Chloropipo uniformis uniformis* Salvin and Godman, of the higher mountains of British Guiana, but color throughout brighter, yellower; size slightly smaller; the bill narrower.

TYPE.—No. 245,931, Amer. Mus. Nat. Hist.; ♂ ad.; Savanna Hills, 4400 ft., tableland of Mt. Duida, Venezuela; February 2, 1929; G. H. H. Tate.

SPECIMENS EXAMINED

Chloropipo uniformis duidæ.—VENEZUELA: Mt. Duida, 3250 ft., 2 ♂; 4200–4400 ft., 3 ♂; 4700 ft., 2 ♂, 3 ♀; 5000–5800 ft., 1 ♂, 2 ♀; 6200 ft., 1 ♂, 2 ♀.

Chloropipo uniformis uniformis.—VENEZUELA: Mt. Roraima, 4 ♂, 6 ♀.

A very close representative of *Chloropipo uniformis*, which heretofore has been known only from Roraima, Merumé, Twek-quay, and Kamarang, British Guiana.

¹Coll. Carnegie Mus.

²1921, Birds Brit. Guiana, II, p. 224.

³1927, Field Mus. Pub. No. 242, p. 202.

MEASUREMENTS

	No.	Sex	Wing	Tail	Breadth of Bill at Base
<i>Chloropipo u. duidæ</i>	5	♂	76-81	52-53	5-6 mm.
" " <i>uniformis</i>	4	♂	80-82	51-56	6.7
" " <i>duidæ</i>	5	♀	75-77	49-51	5.6
" " <i>uniformis</i>	5	♀	78-79	51-52	6.7

***Troglodytes duidæ*, new species**

SPECIFIC CHARACTERS.—Resembling *Troglodytes rufulus* Cabanis of Mt. Roraima but adult with the underparts white, lores gray, bars on tail and inner wing-quills more pronounced; juvenal, Prout's brown instead of mummy-brown above; underparts distinctly barred black and white.

TYPE.—No. 245,933 Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, 4500 ft.; Dec. 27, 1928; G. H. H. Tate.

DESCRIPTION OF ADULT MALE.—Upperparts uniform argus-brown; lores and orbital ring gray; broad postocular patch same color as crown bordered above, behind, and below by ochraceous-buff to ochraceous-tawny; rectrices darker than back, finely and evenly barred with black; remiges, like tail, the outer webs of all but outer quill, both webs of inner quills, finely barred with brown and black; underparts white; flanks, ventral region and under tail-coverts slightly lighter than the back; feet and bill brownish black; gonys paler. 5 ♂: wing, 55-59; tail, 37-41; culmen, 17-17.5 mm.

DESCRIPTION OF ADULT FEMALE.—Resembles the male in color, but averages slightly smaller. 5 ♀: wing, 54-47; tail, 37-38; culmen, 16-17.

DESCRIPTION OF JUVENAL.—Upperparts uniform Prout's brown; postocular paler than in adult; sides of the head darker; wings and tail externally the color of the back, less definitely barred than in adult; underparts white, the feathers tipped with black giving an evenly barred appearance; sides, flanks, ventral region and lower tail-coverts somewhat duller than in adult; feet and bill brownish black; gonys paler.

SPECIMENS EXAMINED

Troglodytes duidæ.—VENEZUELA: Mt. Duida, 3250 ft.; 1 ad., 1 juv.; 4700-5000 ft., 5 ad., 1 juv.; 5200-5800 ft., 2 ad.; 6200-6700 ft., 4 ad., 2 juv.; 7100 ft., 2 ad., 1 juv.

Troglodytes rufulus.—VENEZUELA: Mt. Roraima, 20 ad., 6 juv.

The bird here described is obviously a representative of *Troglodytes rufulus* of Mt. Roraima. I am led to give it specific rank less by the differences between the adults than by the even more pronounced differences shown by the young. These, it seems to me, argue for a more fundamental and significant variation than is indicated by the differences of degree which separate the mature birds. In any event, it is worthy of special note that the adults are more nearly alike than are the young. In spite of their much larger size these two species are near

enough to *Troglodytes solstitialis* of the Andean humid Temperate Zone from western Venezuela to Argentina to suggest the possibility of their representing that species.

***Microcerculus duidæ*, new species**

SPECIFIC CHARACTERS.—Most closely related to *Microcerculus ustulatus* Salvin and Godman, of Mt. Roraima, but much larger and less brightly colored, the prevailing color of the underparts buckthorn brown, rather than amber brown.

TYPE.—No. 245,932, Amer. Mus. Nat. Hist.; ♂ ad.; 6700 ft., tableland Mt. Duida, Venezuela; January 23, 1929; Olalla Bros.

DESCRIPTION (sexes alike in color).—Upperparts ruddy Brussels brown, the feathers of the crown very narrowly margined with black, such margins barely perceptible on the back, tail and wings, and their coverts blackish all strongly margined with argus brown; breast buckthorn brown, the throat paler and grayer the remaining underparts increasing to cinnamon or Brussels brown on the flanks and ventral region; the abdominal region usually with posteriorly rounded black bars which in some specimens extend to the breast and in others are nearly absent; lower tail-coverts obscurely barred; feet brownish black; maxilla black; mandible yellowish except at the extremity.

SPECIMENS EXAMINED

Microcerculus duidæ.—VENEZUELA: Mt. Duida, 3250 ft., 1 ♀; 4200 ft., 2 ♂, 1 ♀; 4700 ft., 2 ♂, 1 ♀; 5000 ft., 1 ♀; 6700 ft., 1 ♂.

Microcerculus ustulatus.—VENEZUELA: Mt. Roraima, 1 ♂.

While differing markedly in both color and size from *M. ustulatus* of Mt. Roraima, the Duida bird is nearer to that species than to any other known form and doubtless represents it.

MEASUREMENTS

	Wing	Tail	Tarsus	Culmen
<i>Microcerculus duidæ</i> , 3 ♂	61-63	31-33	27-28	18.5-19 mm.
“ <i>ustulatus</i> , 1 ♂	55	28	24	18
“ <i>duidæ</i> , 3 ♀	57-59	29-30	25-26	18 -19

***Turdus roraimæ duidæ*, new subspecies**

SUBSPECIFIC CHARACTERS.—Resembling *Turdus roraimæ roraimæ* Salvin and Godman in color, but wings and bill averaging longer, tail constantly longer, the bill darker.

TYPE.—No. 245,934, Amer. Mus. Nat. Hist. ♂ ad.; Mt. Duida, alt. 6200 ft., Venezuela; Jan. 15, 1929; Olalla Bros.

SPECIMENS EXAMINED

Turdus roraimæ duidæ.—VENEZUELA: Mt. Duida, 3250 ft., 1 ♀, 1 juv. (Jan. 1); 4700 ft., 2 ♂; 5000 ft., 4 ♂, 2 ♀, 1 juv.; 5500 ft., 2 ♂, 1 ♀; 6200 ft., 4 ♂, 3 ♀.

Turdus roraimæ roraimæ.—VENEZUELA: Mt. Roraima, 5000 ft., 6 ♂; 6800 ft., 3 ♂.

MEASUREMENTS OF MALES

	Wing	Tail	Culmen	Depth of Bill at Base
<i>Turdus duidæ</i>	128	110	27	7 mm
" "	130	110	28	7.7
" "	122	103	27	7
" "	125	102	25	7
" "	125	107	26.5	7.3
" "	125	115	28	7.3
" "	126	106	25	7.3
" "	129	107	26	7.3
" "	133	119	28.5	7.3
" <i>roraimæ</i>	122	95	26	6
" "	124	95	26	6
" "	117	97	27	6.3
" "	126	95	26	6
" "	119	90	25	6
" "	123	99	26.3	6
" "	121	95	26.5	6.3

While the differences between *Duida* and *Roraima* specimens are slight they are constant enough to be diagnostic and hence call for recognition through nomenclature.

***Myioborus duidæ*, new species**

SPECIFIC CHARACTERS.—Related to *Myioborus castaneicapillus* Cabanis of Mt. Roraima, but with the underparts orange instead of lemon-chrome and with a conspicuous white supraloral stripe.

TYPE.—No. 245,925, Amer. Mus. Nat. Hist., ♂ ad.; Central Camp, 4800 ft., Mt. Duida, Venezuela; Dec. 31, 1928, G. H. H. Tate.

DESCRIPTION (sexes alike).—Upperparts dark grayish olive, more olive in fresh, grayer in worn plumage; crown and nape chestnut; forehead and lores blackish gray; auriculars gray; a well-defined white superciliary stripe from the bill to behind the eye; rectrices black, three outer pairs of feathers with terminal white areas occupying about half the outer pair and a half-inch shaft-wedge on the third pair, outer vane of second pair narrowly black; wings fuscous-black, their coverts slightly grayer; bend of the wing and lower coverts white; chin whitish, rest of underparts orange; lower tail-coverts white faintly tinged with orange; tibiae grayish; feet and bill brownish black. 5 ♂: wing, 66–69; tail, 60–64; culmen, 7.5–8 mm.

SPECIMENS EXAMINED

Myioborus duidæ.—VENEZUELA: Mt. Duida, 3250 ft., 2; 4700 ft., 10; 4800–5000 ft., 12; 6200 ft., 2; 6700 ft., 1.

Myioborus castaneicapillus.—VENEZUELA: Mt. Roraima, 15.

Myioborus brunneiceps.—BOLIVIA, 14. ARGENTINA, 9.

The Duida and Roraima species are evidently mutually representative. The pigmental change which makes the yellow of the latter the orange of the former is doubtless less important biologically than the somewhat pronounced result would indicate. There is, however, no variation in the color of the underparts in our large series of both species. One set is uniformly yellow, the other uniformly orange. The white superciliary is always present in *duidæ* and often wholly absent in *castaneicapillus*; but in some specimens of the latter it is suggested as a faint, grayish supraloral stripe.

***Emberizoides duidæ*, new species**

SPECIFIC CHARACTERS.—Larger and markedly darker than any other member of the genus; the tail largely black; wings narrowly margined with olive-green.

TYPE.—No. 245,937, Amer. Mus. Nat. Hist., ♂ ad.; Savanna Hills, Mt. Duida, Venezuela; 4400 ft.; February 2, 1929; G. H. H. Tate.

DESCRIPTION OF ADULT (sexes alike).—Upperparts largely black, the crown narrowly, the back more widely margined with Dresden brown or Saccardo's umber; the scapulars with a suggestion of Saccardo's olive, rump and upper tail-coverts dark Dresden brown narrowly striped with black; lateral pair of rectrices fuscous, remaining rectrices black or blackish narrowly margined externally with grayish or brownish; wings black or blackish; the primaries narrowly margined with greenish olive, the wing-coverts more widely margined with a more greenish olive; bend of the wing yellow, under wing-coverts white; lores whitish, eye-ring white, the sides of the head blackish gray; throat and center of the abdomen white; breast and sides washed with light brownish olive, the flanks and under tail-coverts more Saccardo's umber and centrally streaked with black; feet brownish; maxilla black; mandible primuline-yellow.

SPECIMENS EXAMINED

Emberizoides duidæ.—VENEZUELA: Mt. Duida, Savanna Hills, 4400 ft., 2 ♂; 4700 ft., 1 ♂; 5100 ft., 1 ♂; 6700 ft., 1 ♀.

Emberizoides herbicola sphenurus.—VENEZUELA: Esmeralda, 325 ft., 22; Savanna Grande, near Esmeralda, 330 ft., 25; Halfway camp, 350 ft., 10; base of Duida, 725 ft., 1; Mt. Roraima, 4000–6000 ft., 13; Cotiza, near Caracas, 5; Bermudez, 2; Mérida region 2. COLOMBIA: San Miguel, Santa Marta, 1; Bogotá, 2; Cauca Valley, 2.

Emberizoides herbicola herbicola.—BRAZIL: Bahia, 1; Rio de Janeiro, 2; Itatiaya, 1600 ft., 3. ARGENTINA: Misiones, 3.

This striking zonal race was found only on the tableland of Duida in open growths of bromelias. It is obviously a representative of *Emberizoides herbicola* from the northern form of which, *sphenurus*, it has apparently been derived. Although this race is common on the savannas at the base of Duida, its range is separated from that of *duidæ* by wide areas of forest. This fact, in connection with the degree of differentiation presented by *duidæ*, induces me to describe it as a species.

MEASUREMENTS

<i>E. duidæ</i>	Sex	Wing	Tail	Tarsus	Culmen
Mt. Duida, 4400 ft.	♂	81	118	26	16.5 mm
" 4400 ft.	♂	81	119	26.5	17.5
" 6700 ft.	♀	75	111	25.5	16.5
<i>E. herbicola sphenurus</i>					
Base of Mt. Duida, 350 ft.	♂	69	92	25.5	15.5 mm
" " "	♂	66	88	25	15.5
" " "	♂	67	88	25	16
" " "	♂	68	92	25.5	15
" " "	♂	67	92	25	15
" " "	♀	66	94	24	14.5
" " "	♀	65	89	24	15.5
" " "	♀	65	85	24	14.5
" " "	♀	63	84	24	15
" " "	♀	64	87	22.5	15
<i>E. h. herbicola</i>					
Rio de Janeiro	♂	75	109	25.5	17 mm.
"	♀	72	99	24	16.5

***Atlapetes duidæ*, new species**

SPECIFIC CHARACTERS.—Most closely related to *Atlapetes personatus* (Cabanis) of Mt. Roraima, but throat and breast chestnut instead of yellow; back, wings and tail black instead of dark gray.

TYPE.—No. 245,936, Amer. Mus. Nat. Hist.; ♂ ad.; Cerros de Savanna, 4700 ft., tableland, Mt. Duida, Venezuela; February 27, 1929; Olalla Bros.

DESCRIPTION (sexes alike).—Head and neck, throat and breast chestnut; back, wings and tail jet black; bend of the wing yellow; lower breast and abdominal region empire-yellow; sides, flanks, and under tail-coverts olive-citrine, the latter margined with yellow; feet and bill black. 5 ♂: wing, 79–81; tail, 80–85; tarsus, 27–29; culmen, 16–17 mm.

SPECIMENS EXAMINED

Atlapetes duidæ.—VENEZUELA: tableland of Mt. Duida, 4800–6200 ft., 10 ♂, 2 ♀.

Atlapetes personatus.—VENEZUELA: Mt. Roraima, 11 ♂, 7 ♀.

Evidently a specifically distinct representative of the Roraiman *Atlapetes personatus*. Some specimens of the latter have traces of chestnut on the breast showing a tendency toward the development of the marking that distinguishes *duidæ*.

***Diglossa duidæ*, new species**

SPECIFIC CHARACTERS.—Not closely resembling any known species; slightly larger than *Diglossa humeralis*, back slate-color, underparts paler; lower tail-coverts gray.

TYPE.—No. 245,938, Amer. Mus. Nat. Hist.; ♂ ad.; Mt. Duida, Venezuela, 6600 ft.; January 23, 1929; Olalla Bros.

DESCRIPTION (sexes alike).—Crown shining black, the feathers slightly outlined by their somewhat brighter margins; changing into deep slate-color on the back and upper tail-coverts; tail and wings black very narrowly margined with slate-color; greater and median wing-coverts black usually narrowly margined with slate-color, but sometimes (about one in every three specimens) both greater and median coverts tipped with white; lesser wing-coverts slate-gray of the same color as the back, and not forming a distinct area; lower wing-coverts grayish; chin and sides of the head black, the breast slate-color, changing to slate-gray on the abdomen where the darker margin of the feathers gives a slightly squamate effect; lower tail-coverts slate-gray margined with whitish; tibiae somewhat darker than abdomen; feet blackish; bill dark plumbeous, blacker apically. 5 ♂: wing: 71–75, tail, 54–47; culmen, 15–16 mm. 5 ♀: wing 67–70; tail, 52–55; culmen, 14–15 mm.

SPECIMENS EXAMINED

Diglossa duidæ.—VENEZUELA: Mt. Duida, 550 ft., 2; 3250 ft., 2; 4700 ft., 25; 5000–5500 ft., 10; 6000–6700 ft., 10.

Examples of all the remaining species of the genus.

In view of the close affinity between the bird-life of Mts. Duida and Roraima it is surprising to find the Duidan representative of *Diglossa* so unlike *Diglossa major* of Roraima. In its large size, disproportionately long tail (only 8–10, instead of 15–18 mm. shorter than wing), pronounced shaft-streaks and chestnut lower tail-coverts, *major* differs so widely from *duidæ* that the two birds do not appear to be in even the same group.

On the whole, *duidæ* most nearly resembles *D. humeralis* of the Temperate Zone of the east Andes in Colombia. This species is slightly smaller than *duidæ* and is wholly black except for the gull-gray lesser wing-coverts, slate-gray rump and, usually, trace of gray in the lower tail-coverts. The gray lesser wing-coverts are much more pronounced than in *duidæ* in which they are nearly of the same slate-color of the back, but, with this exception, an increase of black in *duidæ* would cancel the differences between it and *humeralis*. In the absence of a distinct lesser wing-covert area *duidæ* resembles *nocticolor*, the Santa Martan representative of *humeralis*.

