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STUDIES OF PERUVIAN BIRDS. NO. XXV¹

NOTES ON THE GENERA THAMNOPHILUS, THAMNOCHARIS, GYMNO-PITHYS, AND RAMPHOCAENUS

By John T. Zimmer

Receipt of additional material has made it possible to discuss a number of species which were left in abeyance when their immediate allies were discussed in former numbers of this series. It has also made it desirable to revise the treatment of *Ramphocaenus melanurus* which now appears to be divisible into several additional forms not recognized heretofore.

As in previous papers, names of colors are capitalized when direct comparison has been made with Ridgway's 'Color Standards and Color Nomenclature.'

I am greatly indebted to Dr. C. E. Hellmayr for certain notes on European material which have been helpful in these studies, and to Dr. J. Domaniewski for the loan of a critical specimen.

Thamnophilus praecox, new species

Type from the mouth of Lagarto Cocha, eastern Ecuador. No. 255,955, American Museum of Natural History. Adult female collected January 26, 1926, by Carlos Olalla and sons.

DIAGNOSIS.—Female coloration not very similar to that of any other member of the genus *Thamnophilus* but very like that of females of *Myrmeciza melanoceps* from which it differs as follows. Anterior parts of head very finely streaked with whitish; cinnamomeous color of lower breast and belly somewhat more ochraceous and less pinkish; inner margins of remiges with basal portion marked by rather broad, sharply defined pinkish cinnamon; tail and wings somewhat lighter rufous; size smaller; space before and behind eye fully feathered and other characters of *Thamnophilus*, as distinguished from *Myrmeciza*, equally in evidence.

RANGE.—Known only from the type locality.

Description of Type.—Top and sides of head and neck, chin, throat, and upper breast black, forming a complete black hood sharply defined from the rest of the plumage; forehead, anterior part of crown, lores, malar region, base of auriculars, chin, and upper part of the throat with whitish shafts; back Sanford's Brown × Burnt Sienna, with subterminal portion of the feathers of the mantle paler; lower breast Mars Yellow × Ochraceous-Tawny, passing into Amber Brown × Sanford's

¹ Earlier papers in this series comprise American Museum Novitates, Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, 728, 753, 756, 757, 785, 819, 860, 861, 862, 889, 893, and 894.

Brown on the under tail-coverts. Tail Auburn; wings blackish, with outer webs of remiges and the exposed portions of the upper coverts light Auburn; basal portion of inner margins of remiges occupied by a sharply defined stripe of Pinkish Cinnamon × Vinaceous-Cinnamon. Bill (in dried skin) blackish, with a slaty tinge on the mandible; feet black. Wing, 74.75 mm.; tail, 59; exposed culmen, 17; culmen from base, 22; tarsus, 23.25.

REMARKS.—Male unknown.

There is only one species in the genus Thamnophilus to which any relationship is even suggested. This is T. nigriceps of eastern Panamá and Colombia, which has no known representative in Ecuador. From T. n. magdalenae of the Magdalena Valley of Colombia, the present bird is distinguishable, in the female plumage, by the much greater reduction in the streaking of the head and anterior under parts and the greater intensity of the rufescence on the remainder of the plumage. The pattern on the inner margins of the remiges, the shape of the bill, and the general proportions of the two forms are very similar. Possibly praecox will some day be found to be a representative of nigriceps, but with the male unknown it would be undesirable to do more at the present time than suggest the possibility of such relationship.

If this relationship should materialize, it may be found that the male will be nearly all black, with white markings on the under wing-coverts and on the inner margins of the remiges, much as in the males of the known forms of nigriceps. It is suggested, therefore, that there may be existing specimens that have been confused with males of Thamnophilus aethiops which inhabits the same region and which has some of the characteristics here indicated.

Although not found in Perú up to date, the type locality of *praecox* is so close to Peruvian territory that the range may be found to cross the border when more material is available. Hence I have included the description in this series of papers on Peruvian birds and their affines.

SPECIMENS EXAMINED

T. praecox.—Ecuador: mouth of Lagarto Cocha, 1 Q (type).

Thamnocharis dignissima (Sclater and Salvin)

Grallaria dignissima Sclater and Salvin, 1880, P. Z. S. London, p. 160, Pl. xvii—Sarayacu, eastern Ecuador; cotypes in British Mus.

I have a male from the mouth of the Río Santiago and a female from the Río Mazán, in Peruvian territory, presented by Dr. Harvey Bassler. These are the first specimens obtained in Perú, although the eventual discovery of the bird in this country was, perhaps, to be expected after it was found on the lower Napo in Ecuador.

A male from the mouth of Lagarto Cocha and a female from the mouth of the Río Curaray, eastern Ecuador, compare well with the Peruvian birds. There is apparent a slight sexual difference which may be recorded here. The males have the dark margins of the elongated femoral feathers quite blackish, the throat and breast ochraceous brown, and the back about as olivaceous as the top of the head. The females have the femoral margins more brownish, the pectoral region deeper and more rufescent, and the back distinctly warmer than the crown.

SPECIMENS EXAMINED

T. dignissima.—Ecuador: mouth of Lagarto Cocha, 1 3; mouth of Río Curaray, 1 9. Perú: mouth of Río Santiago, 1 3; Río Mazán, 1 9.

Gymnopithys leucaspis peruana, new subspecies

Type from Chamicuros, Peru. No. 450,934, American Museum of Natural History (Rothschild coll.). Adult male collected August 19, 1867, by Edward Bartlett; original no. 2664.

DIAGNOSIS.—Nearest to G. l. leucaspis of the Bogotá region, eastern Colombia, but dorsal coloration paler, especially on the top of the head.

RANGE.—Northern Perú on the south bank of the Marañón.

DESCRIPTION OF TYPE.—Top of head deep Sanford's Brown (X light Chestnut), distinctly brighter than the mantle which is brownish Auburn; rump a little duller; under tail-coverts a little brighter. Lores with lower portion dull rufescent with blackish tips; upper portion with whitish bases and stronger black tips, forming a black line which is carried over the orbit to connect with the black postocular space; malar region and anterior part of auriculars, back to beyond the posterior border of the orbit, white; chin, throat, middle of breast, and middle of belly broadly white: sides of neck, sides of breast, and anterior flanks black, forming a broad lateral border to the white median parts; femoral tufts Cinnamon-Brown; thighs a little brighter; under tail-coverts with distal half of the feathers Cinnamon-Brown tipped more or less broadly with dull whitish. Exposed portion of outer surface of the wings a little brighter than the back; bend of wing on under side whitish; remainder of under wing-coverts grayish. Tail like the mantle, brighter on the outer margins of the feathers. Maxilla (in dried skin) black; mandible yellowish white, with extreme base blackish; feet faded, nearly colorless. Wing, 78 mm.; tail, 49; exposed culmen, 17; culmen from base, 19.75; tarsus, 25.5.

Remarks.—Female unknown.

Three additional males from the same general region agree rather exactly with the type. A fifth male is somewhat more deeply colored above, approaching the palest of the birds from eastern Ecuador although remaining closer to the other specimens of *peruana*. This specimen, furthermore, shows somewhat more black on the auriculars,

also an approach toward *castanea*, although most of the feathers of the black superciliary stripe have whitish bases.

An additional record from Tarapoto presumably belongs here.

Gymnopithys leucaspis castanea, new subspecies

Type from Río Suno, eastern Ecuador. No. 184,498, American Museum of Natural History. Adult male collected April 14, 1923, by Carlos Olalla and sons. Diagnosis.—Similar to G. l. leucaspis of the Bogotá region of eastern Colombia, but much darker and more intensely colored above, and with the top of the head much less differentiated from the mantle; flanks averaging darker brown and the amount of black on the sides of the breast usually distinctly greater; lores more decidedly blackish, without prominent whitish bases on upper portion.

RANGE.—Eastern Ecuador.

DESCRIPTION OF TYPE.—Back Chestnut X Bay with obscure traces of broad black shaft-stripes; rump approaching Auburn; upper tail-coverts brighter, near Mahogany Red; tail Bay, with outer margins brighter; top of head deep Chestnut, forehead a little lighter than crown; lores, a narrow superciliary line, and a broad postocular band black, involving the sides of the neck and the posterior part of the auriculars; subocular space, including anterior part of auriculars and the whole malar region, white with fine, blackish, hair-like tips which give a dusky appearance to the area, intermediate between the white cheeks of leucaspis and the black ones of the "bicolor group"; the black of the sides of the neck continued down the sides of the breast and the upper flanks in a broad lateral border, posteriorly becoming broader and browner and changing to very dark Argus Brown X Brussels Brown; thighs deep Argus Brown; chin, throat, breast, and middle of abdomen white, with some traces of dusky tips on feathers of breast; under tail-coverts blackish brown with broad tips Tawny Olive; wings blackish with outer margins and other exposed portions the color of the back; under wing-coverts grayish, with traces of white toward outer margin of wing. Maxilla black (in dried skin); mandible black at base, whitish medially, and dusky terminally; feet dull slaty gray. Wing, 74.5 mm.; tail, 43.5; exposed culmen, 16; culmen from base, 20.25; tarsus, 26.

Remarks.—A bird labeled female is similar to the type but has the mantle feathers a little paler gray at base, one or two of them having a suggestion of a pale (whitish) spot sub-basally; outermost black feathers on sides of breast with inconspicuous rufous brown tips; general color a little paler than the type but much darker than leucaspis. If properly sexed, the absence of the broad ochraceous patch (concealed on the mantle in female leucaspis) is diagnostic, but with only a single specimen, differing so slightly from the males but diverging more pronouncedly from the females of the other forms, there is suspicion of an error in sexing.

On the other hand, females of the allied "bicolor group" do not have a concealed patch of buff on the mantle and it is quite possible that castanea may prove to be similar in this particular. It approaches

the "bicolor group" closer than the other forms of leucaspis in respect to the somewhat more extensive black on the auriculars. The form aequatorialis sometimes has an indication of a trend toward the same common ground shown by a slight encroachment of white on the lower or anterior malar region, and the development of black along the sides of the lower under parts is often equal to that in peruana. Some examples of olivascens have the same sort of lores possessed by leucaspis, with more or less white on the lower part surmounted by a black upper border. The presence of a bright (concealed) interscapular patch in the females of leucaspis and lateralis, which is totally lacking in the "bicolor group," appears to be the most decisive difference, but, since this feature is variable in some other species of the Formicariidae, I doubt its specific value. Consequently, I consider bicolor and its affines as belonging to the leucaspis group of which they are strict geographic representatives.

Gymnopithys leucaspis lateralis Todd

Gymnopithys leucaspis lateralis Todd, 1927 (Dec. 2), Proc. Biol. Soc. Wash., XL, p. 174—Manacapurú, Brazil; ♂; Carnegie Mus.

Thirteen specimens from the region of the upper Rio Negro, Brazil, differ from seven Bogotá skins, representing typical leucaspis, by their somewhat browner dorsal surface and by having the under tail-coverts averaging paler, sometimes almost as immaculate white as the lower belly. Some examples are not clearly distinguishable in this latter respect from extremes of typical leucaspis, but these are exceptions. The under wing-coverts also show a more extensive white area. The blackish stripe on the sides of the under parts reaches well posteriad, often to the base of the thighs, but is equally extensive in most Bogotá skins. The white area on the auriculars is somewhat more extensive and often reaches posteriad past the posterior line of the orbit. The femoral area is sometimes more brownish than in Bogotá specimens, but some examples are well matched.

Most of these characters have been given as distinguishing features of *lateralis* and, although there appears to be a trend in the direction of typical *leucaspis*, the upper Rio Negro specimens presumably should be referred to the Manacapurú form.

SPECIMENS EXAMINED

- G. l. leucaspis.—Colombia: "Bogotá," 3 [σ ?], 4 [φ].
- G. l. castanea.—Ecuador: upper Río Suno, 1 \circlearrowleft (type); mouth of Río Curaray, 2 \circlearrowleft , 1 \circlearrowleft .

- G. l. peruana.—Perú: Chamicuros, 3 \circlearrowleft (incl. type); Jeberos, 1 \circlearrowleft ; Chayavitas, 1 \circlearrowleft .
- G. l. lateralis.—Brazil: Rio Negro, Tatú, 3 ♂, 5 ♀; Mt. Curycuryari, 1 ♂; Yucabi, 1 ♀; Rio Uaupés, Tahuapunto, 1 ♂; Iauarate, 1 ♂, 1 ♀.
 - G. l. aequatorialis.—Western Ecuador: 14. Southwestern Colombia: 7.
 - G. l. daguae.—Western Colombia: 8 (incl. type).
 - G. l. ruficeps.—Colombia: "Bogotá," 2; Antioquia, 1.
 - G. l. bicolor.—Colombia: Alto Bonito, 1. Eastern Panamá: 24.
 - G. l. olivascens.—Western Panama: 43. Costa Rica: 17. Nicaragua: 13.

Gymnopithys salvini maculata, new subspecies

Type from Lagarto, upper Río Ucayali, eastern Perú. No. 239,152, American Museum of Natural History. Adult female collected March 17, 1928, by Carlos Olalla and sons.

DIAGNOSIS.—Males indistinguishable from those of *G. s. salvini* of northern Bolivia and the Rio Madeira Valley of Brazil, but females more heavily marked on the back and upper wing-coverts.

Range.—Ucayali Valley, eastern Perú, extending eastward along the south bank of the Amazon into western Brazil as far as Teffé.

DESCRIPTION OF TYPE.—Top of head with shafts and tips of feathers black, overlying the dull rufous lateral and basal portions of the feathers; the nape near Argus Brown, passing into Argus Brown × Brussels Brown on the mantle where, however, each feather is broadly tipped with bright Sanford's Brown X Burnt Sienna, with an equally broad subterminal bar of black; the extreme upper margin of the mantle with these marks obsolete; scapulars like the mantle; center of mantle with a concealed patch of pinkish cinnamon; uropygium darker and with the markings less prominent; upper tail-coverts light rufous with several dusky bars. Lores, superciliary region, sides of head and neck, chin, and throat dark Sanford's Brown X Burnt Sienna, passing into Sanford's Brown on the breast; middle of belly paler, Cinnamon-Rufous; flanks suffused with dark Dresden Brown; under tail-coverts Cinnamon-Rufous. Tail bright Auburn crossed by eight narrow black bars, of which those on the basal portion of the feathers are not continuous across the shaft but alternately spaced; the distal ones are continuous, the last one subterminal. Remiges Fuscous with outer margins light Auburn, tending toward ochraceous on the two outer feathers; tips light cinnamomeous (obsolete on the outer few feathers) preceded by a dusky line; tertials with ground color dark Hazel with a brighter rufous tip and blackish subterminal bar which turns basad on the outer web; an antepenultimate spot of pale cinnamon is present on the tertials and suggested on the inner secondary. Upper wing-coverts with sharply defined borders of Ferruginous X Burnt Sienna and with the rest of the feather blackish, with a deeper tone of black subterminally, forming a black subapical bar on a few of the inner feathers of the greater and median series; bend of wing light Sanford's Brown; rest of wing-lining like the flanks. Maxilla (in dried skin) blackish; mandible yellowish; feet brown. Wing, 75 mm.; tail, 46: exposed culmen, 15; culmen from base, 20; tarsus, 25.5.

Remarks.—Males gray with white upper border of the lores carried narrowly and indistinctly over the eye; remainder of lores blackish; chin, throat, malar region, and anterior portion of auriculars white,

forming a large gular patch; tail blackish with gray outer margins and with about eight narrow white cross-bars, the last one terminal and crossing both webs, the remainder variable, usually absent from the outer web of the median pair and often only on the inner web of the outer pair, rarely absent from both webs of the median pair; tips of the secondaries narrowly white preceded by an indistinct dusky area; greater upper wing-coverts rarely marked in a similar manner; bill and feet black. Size about equal to the females.

The female of this form was described by Hellmayr (1907, Novit. Zool., XIV, p. 72) as the female of typical salvini, and the females of the typical form were characterized later (t. c., p. 385) in the belief that only a single form existed. This belief was occasioned by the extreme similarity of certain examples from different parts of the specific range. These same examples are now before me, together with much more material from still other parts of the specific range, and such a large proportion of the females fall readily into two definite series that it seems advisable to recognize two subspecies instead of a single form. Thus, one of five females from Humaythá, Rio Madeira, has the mantle plainly marked with blackish subterminal bars and bright rufescent tips, but the black bars are narrower than those in maculata; furthermore, the upper wing-coverts are not so blackish in their centers, although they are a little darker than in most other typical salvini. of eight females from Rosarinho is like the mentioned female from Humavthá while a second Rosarinho bird, not quite adult, is a little more strongly marked though it is much paler in general coloration than A female from Todos Santos, Bolivia (nearly topotypical of salvini) has small blackish markings on the lower mantle and scapulars, but the upper wing-coverts have less contrast than usual between the centers and the margins. The other birds from Rosarinho and Humavthá have only slight suggestions of pale tips and darker brown subterminal marks. On the other hand, four adult females from Teffé. Brazil, and three from the Ucayali, Perú, are all boldly marked on the back, and even a fifth female from Teffé in juvenal plumage has a few feathers with similar markings on the lower part of the mantle and shows the same blackish centers on the upper wing-coverts.

The young female has the top of the head Prout's Brown with faint indications of blackish bars at the tips and across the middle of the feathers; the back is lighter, near Cinnamon Brown, with similar obsolete traces of dark bars except where new feathers show the strong barring of the adult plumage; the uropygium is dark Dresden Brown. The

upper part of the lores is Cinnamon-Rufous and there is a very faint trace of the same color over the eye; the lower part of the lores is dusky and there is a dusky patch in the center of the auriculars and through the malar region; the rest of the sides of the head, the chin, and the throat are Cinnamon-Rufous × Orange-Rufous, forming a bright patch corresponding to the white throat-patch of the adult males; the breast and sides are Bister, with slight blackish tips, forming a broad pectoral band; belly dull Light Brownish Olive where the brighter adult feathering has not appeared; under tail-coverts more cinnamomeous. Tail as in the adult female; wings like those of the adult female but duller. Bill (in dried skin) black; feet dull brownish.

The young male is much like the young female above but rather darker and without traces of dusky barring, except at the tips of the feathers on the top of the head. Lores dusky; sides of head, chin, and throat Fuscous, except where the gray or white feathering of the adult has appeared; breast crossed by a band of brighter brown, near Sepia; belly about like the throat or perhaps a little grayer although in all the young males at hand this region appears to have molted already into the adult gray, with only a few feathers of juvenal age remaining. Remiges fuscous, with exposed edges very dark brown; secondaries with small white spots at the tip; tertials with broader buffy or white tips preceded by a black bar; upper wing-coverts sooty brown with pale cinnamomeous tips and black subapical bars; tail blackish, banded with white as in the adult male but with the outer margins of the feathers brownish instead of gray.

Description of the juvenal plumage of both sexes is important in consideration of the affinities of *Gymnopithys lunulata*, the status of which is discussed below.

There are no previous records of G. salvini from Perú.

SPECIMENS EXAMINED

G. s. salvini.—Bolivia: Todos Santos, 2 \circlearrowleft , 1 \circ ; Mission San Antonio, Río Chimoré, 1 \circlearrowleft . Brazil: Rio Madeira, Humaythá, 5 \circlearrowleft , 5 \circ ; Rosarinho, 14 \circlearrowleft , 8 \circ ; Santo Antonio de Guajará, 1 \circlearrowleft .

G. s. maculata.—Perú: Lagarto, 1 \circlearrowleft , 2 \circlearrowleft (incl. type); Santa Rosa, 1 \circlearrowleft , 1 \circlearrowleft ; Sarayacu, 3 \circlearrowleft ; Orosa, 1 \circlearrowleft . Brazil: Teffé, 7 \circlearrowleft , 5 \circlearrowleft .

Gymnopithys lunulata (Sclater and Salvin)

Pithys lunulata Sclater and Salvin, 1873, P. Z. S. London, p. 276., Pl. xxvi—Sarayacu, Río Ucayali, Perú; ♀; British Mus.

A single female of this most interesting bird was secured by the

Olallas at Lagarto, upper Río Ucayali. I have seen, in addition, the specimen collected by Stolzmann at Yurimaguas, generously loaned by Dr. Domaniewski of the Warsaw Museum, and Dr. Hellmayr has kindly favored me with his manuscript notes on the type in the British Museum. Both of these other specimens also are females.

There is a strong suggestion of *G. salvini* in the general appearance of this bird, although the differences from it are equally striking; in fact, Berlepsch, when describing *salvini*, suggested the possibility that it might be the male sex of *lunulata* since he had no females of *salvini* at that time. With adults and young of both sexes of *salvini* salvini and *salvini* maculata at hand, it is impossible to fit *lunulata* anywhere into the picture, and yet there is an underlying impression that there is some connection yet to be established. In general, it may be said that *lunulata* combines certain features of the adults and young of both sexes of *salvini* maculata with certain peculiarities or modifications not found in them.

The facial markings are those of adult male salvini or maculata: the top of the head is like young female salvini or maculata; the ground color of the back is much like young female maculata, but it is more heavily marked than in adult female maculata, with the dark bars much broader and the pale tips buffy instead of light rufescent. The tail, at first glance, appears to be very differently marked, with only three or four light spots instead of the seven or eight black bars on a rufous ground as found in the salvini group, but a careful examination shows that these pale spots are bordered anteriorly and posteriorly by black, with an indistinct light space between each two successive black borders, so that a series of light and dark bars is actually present which may be correlated with the bars on the tail of salvini, although the spacing is quite different. One male of salvini at hand has one of the outer rectrices marked in a somewhat similar manner. The wing-pattern is only a little more pronounced than in young males of the salvini group. Even adult males of salvini sometimes show white tips on the upper wing-coverts preceded by a definite black subapical bar.

It is quite possible that the males of *lunulata* are so similar to those of *salvini* that they are confused with them in the material at hand, but there is no proof of any sort available. It is equally possible that some unexpected pattern will be found when males are definitely identified as belonging to this form. Since both *lunulata* and *salvini maculata* occur at Lagarto and at Sarayacu, the two species must be kept distinct until further evidence is forthcoming.

The Lagarto specimen of *lunulata* is not fully adult and differs from the Sarayacu example and from the published figure of the type in several respects which are to be attributed to its immaturity. Thus, the throat is partly brown like the breast, with a few white feathers suggesting the mature pattern. The upper part of the lores and the superciliary region are dull cinnamomeous instead of white. The sides of the mantle are nearly plain brown, with faint suggestions of the banded tips of the adult plumage, but the median line of this area and the scapulars also are occupied by feathers with the strongly marked adult pattern, making three stripes of banded feathers on the back. No molt appears to be in progress and, although the banded feathers are of somewhat firmer texture than the plainer ones, they may be equally juvenile. A slight area of white is concealed on the mantle as in the other two examples. The Yurimaguas bird and apparently also the Sarayacu specimen are adults.

I have considered the possibility that *lunulata* represents the female plumage of *G. leucaspis peruana*. The likelihood appears very remote although there are slight traces of *lunulata* pattern discernible on some parts of the plumage of certain individuals of the *leucaspis* group, and the white abdomen is suggested in *lunulata* by white shafts and pale median spots in this region.

There are no records of members of the *leucaspis* and *salvini* groups from the same locality although *l. peruana* occurs east of the lower Huallaga and *s. maculata* occurs west of the lower Ucayali while *lunulata* overlaps both ranges. The possibilities of *peruana* and *maculata* actually occurring together and of *lunulata* being a hybrid are, therefore, not excessively remote, although it is difficult to see in *lunulata* a hybridism of this sort.

The possibility of obscure relationship to *Hylophylax poecilonota* lepidonota, whose range coincides in part with that of *G. lunulata* and which has certain features of pattern in common with it, is probably very remote, but the resemblance may prove to be significant. Nevertheless, until *lunulata* can be identified with some other species or until its masculine plumage is ascertained, it must remain under its own name as a very peculiar species about which the last word has yet to be written.

SPECIMENS EXAMINED

G. lunulata.—Pert: Lagarto, 1 ♀; Yurimaguas, 1 ♀¹.

¹ Specimen in National Zoological Museum, Warsaw.

Ramphocaenus melanurus amazonum Hellmayr

Ramphocaenus melanurus amazonum Hellmayr, 1907, Novit. Zool., XIV, p. 66—Teffé, Rio Solimoës, Brazil; ♂; American Mus. Nat. Hist. (Rothschild coll.).

Acquisition of the type of amazonum and various specimens from the Rio Madeira, not previously available, gives further assurance that the birds from Lagarto, right bank of the upper Ucayali, Perú, belong to this form.

Two birds from just north of the Marañón and one from Yurimaguas have also come to hand and permit the solution of the problem (1931, Amer. Mus. Novitates, No. 509, p. 3) concerning a bird of doubtful identity from the mouth of Lagarto Cocha, southeastern Ecuador. Since they all agree in characters which distinguish them from amazonum they may be separated as follows.

Ramphocaenus melanurus badius, new subspecies

Type from the mouth of the Río Cinipá, Perú. No. 407,242, American Museum of Natural History. Adult male collected September 17, 1929, by José Schunke; original no. 306.

DIAGNOSIS.—Nearest to R. m. amazonum of the south bank of the Amazon and similarly without bright flanks, but median under parts less purely white; flanks averaging duller and grayer; upper surface brighter or warmer brown; auriculars darker, more ochraceous or brownish, less whitish.

RANGE.—Perú north of the Marañón and apparently also crossing it to the vicinity of the mouth of the Huallaga; southeastern Ecuador in the lowermost portion of the Río Napo.

Description of Type.—Top of head light Argus Brown with a tinge of Auburn; back near Cinnamon Brown. Lores pale brownish buff; a very inconspicuous dull whitish superciliary line, hair-like and even less conspicuous over the eye than over the auriculars; postocular stripe like the top of the head; auriculars light brownish; chin, throat, and belly whitish; breast faintly buffy, deeper on the sides; flanks dull brownish gray. Remiges with exposed outer margins much like the back, somewhat paler on the primaries; upper wing-coverts similarly margined with warm brown; inner margins of remiges narrowly whitish; under wing-coverts dull whitish except the under primary-coverts which have a brownish tinge. Tail largely blackish; outermost pair of rectrices with terminal third of inner web and most of outer web somewhat paler and grayer, but not prominently so; subexternal pair with pale tips all but obsolete. Bill (in dried skin) with maxilla slightly reddish brown; mandible paler, flesh-colored along the lower margin; feet pale slaty gray. Wing, 53 mm.; tail, 42; exposed culmen, 22; culmen from base, 26.5; tarsus, 20.

REMARKS.—Female not certainly distinguishable from the male unless it should be found to average slightly smaller. Wing, 49 mm.; tail, 41.5; exposed culmen, 20; culmen from base, 24.5; tarsus, 19.5.

The two specimens, from Chayavitas and Santa Cruz, respectively, which Hellmayr found to be brighter and clearer brown above than the type and Rio Madeiran skins of his amazonum, add further weight to the evidence of distinction for badius. A Yurimaguas specimen, also mentioned by Hellmayr and now before me, shows the same warm upper parts but has the auricular region paler than the type and two other paratypes of badius, being about as in the darkest extreme of amazonum. With few exceptions, however, amazonum has the auricular region conspicuously pale or even whitish, quite unlike badius.

Taczanowski's remark that a female from Yurimaguas had the tail entirely black may have had its origin in a specimen with this appendage incomplete. The female at hand from the mouth of the Río Santiago apparently has the tail entirely black, but the outermost (and some other) rectrices are missing. The Yurimaguas male has a tail like that of the type of badius which does not differ from the tail of amazonum in this respect. There is no approach toward the strongly marked tail of obscurus.

Specimens of amazonum from the lower Amazon average rather brighter above than skins from the upper Amazon, although some are quite similar, and also average paler on the lateral under parts where they sometimes have a buffy tinge suggesting a slight approach toward typical melanurus. Some of the brightest examples of this sort have the upper parts as warmly colored as badius, but the outer margins of the remiges remain duller, the top of the head is more strongly differentiated from the back, the auriculars are much more whitish, and the tinge of buff on the sides and flanks is far removed from the grayish tone of badius.

Additional specimens from the Pará district, including the right bank of the Tocantins, and from the eastern coast of Brazil show that the Pará form is not true *melanurus* but a distinct subspecies which has not been recognized heretofore. It may be known as follows.

Ramphocaenus melanurus austerus, new subspecies

Type from Pedral, Baião, Rio Tocantins (right bank), Brazil. No. 431,327, American Museum of Natural History. Adult male collected December 11, 1931, by A. M. Olalla.

DIAGNOSIS.—Similar to R. m. melanurus of southeastern Brazil in respect to the presence of bright ochraceous lateral under parts, but the upper surface very much duller, grayish instead of tawny. Similarly grayer above then R. m. amazonum of the south bank of the Amazon, farther upsteam, and in addition distinguishable by the bright flanks which are not found in amazonum.

RANGE.—Pará region, from the right bank of the Tocantins eastward to northern Maranhão.

DESCRIPTION OF TYPE.—Top of head hardly brighter than Buffy Brown; hind

neck slightly brighter, passing into Light Brownish Olive on the back, somewhat darker on the rump. Lores and an inconspicuous superciliary line whitish; a wider postocular stripe the color of the crown; auriculars dull whitish basally, passing into Tawny-Olive X Sayal Brown posteriorly and on the sides of the neck; chin, throat, and median line of belly white; middle of breast whitish, faintly buffy; sides of breast like sides of neck; flanks Pinkish Buff × Cinnamon-Buff; under wing-coverts white; inner margins of remiges narrowly whitish: exposed outer margins of secondaries much like the back; those of primaries paler, near smoke gray; upper wing-coverts grayish brown, margined with the color of the back. Tail largely blackish, somewhat gravish on bases of lateral margins; outermost rectrices with terminal third of inner webs grayish and most of outer webs the same, becoming whitish in a very narrow marginal hair-line about the middle of the feather; tips of next two pairs narrowly pale, narrower on the antepenultimate feathers. Bill (in dried skin) brown on maxilla, paler brownish on mandible, with gonys and lower margins of the rami flesh-color; feet dull slaty. Wing, 50.5 mm.; tail, 45.5; exposed culmen, 20; culmen from base, 23.25; tarsus, 20.5.

Remarks.—Female uncertain. A single bird of this sex from Palmares, Pernambuco, is a little brighter on the upper surface, though not so brightly colored as the specimens which I unhesitatingly refer to typical *melanurus*. With only a single specimen, the identification is not without some query, but the record may be left with *melanurus* for the present.

Similarly there is but a single specimen from Maranhão,—near Miritiba. This bird is somewhat faded, but is much less warmly colored above than the Pernambuco skin. The flanks are still rather bright ochraceous, whereas several faded Bahia skins, including the type of Wied's *Thryothorus gladiator*, have lost most of the bright color of the lateral under parts although the upper parts are still quite tawny, much brighter and warmer than any of the specimens of *austerus*, all of which are fresher.

There is just a possibility that the Bahian birds may represent a still different form with permanently pale flanks as noted. Without fresh material it is impossible to be sure. Wied [1830, 'Beitr. Naturg. Bras.,' III (2), p. 753] notes the sides and flanks of the type as strongly washed with "röthlich-graubraun," which is rather more applicable to the type, even in its present faded condition, than it is to the fresher skins from São Paulo and Santa Catharina. If Bahian birds are separable, Wied's name would seem to be available for them. However, such recognition would require the assignment of the Pernambuco skin to austerus where it seems to be out of place. Fresh material from Bahia is more likely to show that Thryothorus gladiator is a strict synonym of Ramphocaenus m. melanurus. Swainson's Troglodytes rectiros-

tris also is certainly a synonym of melanurus and not an earlier name for austerus since the original description refers to the bright coloration of the upper parts, the distinguishing feature of the southeast-Brazilian form.

Ramphocaenus melanurus trinitatis Lesson

Ramphocaenus trinitatis Lesson, 1839, Rev. Zool., II, p. 42—"in insula Trinitatis"; type lost?

Additional material from northern Venezuela and Trinidad points to the necessity for further revision of the Venezuelan forms, only a portion of which is clearly demonstrable at this time. by Hellmayr [1924, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (3). p. 207, footnote al, specimens from Bermúdez are notably paler than the average from Trinidad, and I find other examples from the Cumaná region in better accord with them than with Trinidad birds. has stated that Bermúdez specimens form the transition to pallidus (of which I have no specimens of undoubted identity) and perhaps they should be referred to pallidus rather than to trinitatis. dered plausible by the facts that on the upper Orinoco and the Caura a variation in the opposite direction occurs, and also that one skin from east of Bogotá, in Colombia, is indistinguishable from the Bermúdez and Cumaná birds. The continuity of this distribution has vet to be demonstrated but would be expected to follow somehow along the base of the Cordillera of Mérida to eastern Colombia. There appear to be no records from between the state of Lara, Venezuela, and eastern Colombia and it is possible that the range is broken through this region.

If the Cumaná and Bermúdez birds are referred to pallidus, the Trinidad form is cut off from the Orinoco. Specimens from the Paria Peninsula are exactly like the Trinidad specimens and should be referred to the same subspecies. Hellmayr already has pointed out the possibility of error in the application of the name "trinitatis," the original description of which applies better in some particulars to the bird later called albiventris. There is thus an obvious error either in description or in citation of type locality, and it is impossible to say which is correct without examination of the type, the whereabouts of which have not been ascertained. Until other evidence is forthcoming, I follow Hellmayr in the application of the name.

The upper Orinoco birds are quite recognizably distinct from the Trinidad specimens and even more decidedly separable from the Cumaná examples, which come from a region interposed between the

Paria Peninsula and the upper Orinoco Valley. They may be recognized as follows.

Ramphocaenus melanurus duidae, new subspecies

Type from Esmeralda, Mt. Duida, Venezuela; altitude 325 feet. No. 275,047, American Museum of Natural History. Adult male collected October 7, 1928, by the Olalla brothers.

DIAGNOSIS.—Somewhat similar to *R. m. trinitatis* of the Island of Trinidad and northeastern Venezuela, but upper parts darker with the top of the head less strongly contrasted with the back; lateral under parts deeper ochraceous, more sharply defined from the white median area of the belly.

Range.—Southwestern Venezuela in the vicinity of Mt. Duida, northeastward along the upper Orinoco, and in the Caura Valley; apparently westward to the eastern face of the Andes in northeastern Ecuador.

DESCRIPTION OF TYPE.—Top of head dark Snuff Brown X Saccardo's Umber: hind neck a little brighter; sides of neck much brighter, clear Tawny X Cinnamon, including posterior part of auriculars; base of auriculars paler; a postocular stripe the color of the top of the head, from which it is separated by a narrow superciliary stripe the color of the sides of the neck; lores paler and more buffy; mantle Saccardo's Umber × Olive-Brown; rump darker and duller. Chin and throat clear white; breast light Cinnamon-Buff, deepening into Clay Color on the sides of the neck; flanks Clay Color, rather sharply defined from the center of the belly which is white; under tail-coverts buffy. Remiges sooty, with exposed outer margins warm brown; upper wing-coverts similar; under wing-coverts whitish, tinged with buff on under primary-coverts; inner margins of remiges narrowly whitish. Tail black with inconspicuously paler tips on the submedian to the subexternal rectrices; outermost feathers with terminal fourth and outer margins pale, especially near the middle of the outer margin, and with two poorly defined dark cross-bars near the tip. Maxilla (in dried skin) light brown, mandible flesh-color; feet dull slate. Wing, 48 mm.; tail, 44.75; exposed culmen, 21; culmen from base, 24; tarsus, 19.5.

REMARKS.—Females like the males.

The detail of pattern on the outermost rectrices varies in different individuals but usually shows a pale outer margin and a light tip of variable width, rarely approaching whiteness.

The birds from northeastern Ecuador approach duidae more closely than they do any other form, being similarly colored above and only a little less strongly marked on the lateral under parts.

The range extends down the Napo to the mouth of the Curaray, but at Lagarto Cocha, a short distance farther downstream is found the very different form, *badius*, described on an earlier page.

The material examined, including that reported on in the earlier paper and the specimens subsequently received, may be arranged as follows.

SPECIMENS EXAMINED

R. m. melanurus.—Brazil: São Paulo, Iguapé, 2 σ ; Santa Catharina, Palmital, 1 (?); Pernambuco, Palmares, 1 \circ ; "Bahia," 3 (?); "Brasilia," (?) (type of Thryothorus gladiator).

R. m. austerus.—Brazil: Maranhão, near Miritiba, 1 &; Ananindeua, 1 &; Rio Tocantins (right bank), Baião, 3 &; Pedral, Baião, 1 & (type); Mocajuba, 1 &.

R. m. amazonum.—Brazil: Teffé, 1 & (type); Boca Lago, Teffé, 2 &; Rio Madeira, Borba, 1 &, 2 &; Igarapé Auará, 1 &, 1 &; Calamá, 2 &, 1 &; Humaythá, 1 &; Rio Tapajoz, Igarapé Brabo, 5 &, 5 &; Aramanay, 1 &, 2 (?); Tauary, 2 &, 4 &; Rio Tocantins (left bank), Cametá, 1 (?). Perú: Río Ucayali (right bank), Lagarto, 1 &, 1 &.

R. m. sticturus.—Brazil: Matto Grosso, 1 ♀; Barão Melgaço, 1 ♂; Primavera, 1 ♀.

R. m. obscurus.—Perú: Río Ucayali (left bank), Santa Rosa, 3 ♂ (incl. type), 1 ♀.

R. m. badius.—Peru: mouth of Río Cinipá, $1 \, \sigma$ (type); mouth of Río Santiago, $1 \, \varphi$; Yurimaguas, $1 \, \sigma$. Ecuador: mouth of Lagarto Cocha, $1 \, \sigma$.

R. m. albiventris.—British Guiana: Tumatumari, 1 \varnothing ; Annai, 1 \varnothing , 1 \diamondsuit . Brazil: Faro, 2 \diamondsuit .

R. m. trinitatis.—Trinidad: Pointe Gourde, 1 \, 9, 1 (?); Caura, 1 \, 9; Caparo, 1 \, \sigma^3, 2 \, 9; Princestown, 1 \, \sigma^3, 2 \, 9; Carenage, 2 \, \sigma^3. Venezuela: Cristóbal Colón, 1 \, \sigma^3, 1 \, \varphi.

R. m. trinitatis (near pallidus).—VENEZUELA: Hills of Quebrada Secca, Cumaná, 2 \(\rightarrow ;\) Cumaná, 3 (?); La Tigrera, 1 \(\sigma^2 ;\) Caripé, 1 (?); Cocallar, 1 \(\sigma^2 ;\) Cuchivano, 1 (?); Cumanacoa, 1 \(\sigma^2 ;\) San Antonio, 1 \(\sigma^2 ,\) 1 \(\rightarrow ;\) Colombia: Buena Vista, above Villavicencio, 1 \(\rightarrow ;\).

R. m. duidae.—Venezuela: Mt. Duida, Esmeralda, 4 & (incl. type), 3 \(\forall \); Caño León, 1 \(\sigma \), 4 \(\forall \); Río Orinoco, Lalaja, 1 \(\sigma \); Munduapo, 1 \(\sigma \), 1 \(\sigma \); Río Caura, Suapure, 3 \(\sigma \), 2 \(\sigma \); La Prición, 2 \(\sigma \), 1 \(\sigma \); Caura, 1 \((?) \); Maripa, 1 \(\sigma \), 2 \(\sigma \) (?); Río Cassiquiare, El Merey, 1 \(\sigma \), 1 \(\sigma \); opposite El Merey, 1 \(\sigma \), 1 \(\sigma \); Río Napo 1 \((?) \).

R. m. griseodorsalis.—Colombia: Miraflores, 1 σ (type); El Roble, 1 σ Dabeiba, 1 σ .

R. m. sanctae-marthae.—Colombia: Santa Marta, Concha, 1 3; Bonda, 2 3, 5 (?).

R. m. rufiventris.—Ecuador: Chimbo, 1 &; Esmeraldas, 1 &; Portovelo, 2 &; Bucay, 1 &; Alamor, 1 & (?); Naranjo, 1 & (?). Panamá: 19 &, 14 & 3 (?). Costa Rica: 1 &, 6 &. Nicaragua: 8 &, 7 &. Guatemala: 8 &, 1 &, 3 (?).