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STUDIES OF PERUVIAN BIRDS. NO. XXXIV¹

THE GENERA *TODIROSTRUM*, *EUSCARTHMORNIS*, *SNETHLAGEA*, *POECILOTRICCUS*, *LOPHOTRICCUS*, *MYIORNIS*, *PSEUDOTRICCUS*, AND *HEMITRICCUS*

By JOHN T. ZIMMER

Acknowledgments are made to Mr. W. E. C. Todd of the Carnegie Museum, Pittsburgh, Mr. Rudyerd Boulton of Field Museum of Natural History, Chicago, Mr. Rudolph de Schauensee and Mr. James Bond of the Academy of Natural Sciences, Philadelphia, and Dr. Alexander Wetmore and Dr. Herbert Friedmann of the U. S. National Museum, Washington, D. C., for comparative material generously lent from the collections under their charge. My thanks also are due to Dr. C. E. Hellmayr for comparative notes on certain specimens in European museums which have been of great assistance in the present study.

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

Todirostrum chrysocrotaphum *chrysocrotaphum* Strickland

Todirostrum chrysocrotaphum STRICKLAND, 1850, Contr. Orn., p. 48-6, Pl. XLIX, upper fig.—Perú; Acad. Nat. Sci. Phila.

The type of this interesting form, kindly lent to me by Mr. de Schauensee, cannot be matched exactly by any specimen that I have examined and hence I am not prepared to suggest a restricted type locality for it. Judging by the material at hand, however, I believe that the type probably came from some locality in extreme northern Perú, in the neighborhood of the Marañón, or not far from it. I have two north-Peruvian specimens that

differ from each other as well as from the type of *chrysocrotaphum* but it is possible that all three belong together as representing three extremes of individual variation in a single form. At any rate, I am not prepared to say that the differences have any other significance.

Strickland's illustration of the type, as well as his description, is relatively accurate with regard to general pattern and particularly informative with regard to the anterior extension of the yellow superciliary stripe over the eye to meet the white loreal spot. Both figure and description fail to take notice of a number of fine dusky dots on the sides of the throat and breast, very inconspicuous and easily overlooked although they are relatively larger on the sides of the breast. A few feathers across the chest show dark centers that are concealed by the tips of the feathers and there is some molt in progress in this whole area with indications that some of the incoming feathers would have dark central spots. It is safe to assume, therefore, that the type represents a form with a white loreal spot, a full yellow superciliary stripe, a narrow whitish chin but with the yellow of the malar region almost if not quite touching the base of the bill, and with a necklace of dark spots, nearly obsolete in the type, passing down the malar region and across the chest. The blue-black of the cap covers the occiput broadly and extends over part of the hind neck, being separated from the yellowish green back by a poorly marked collar of more yellowish color.

A fine male from Río Seco, west of Moyobamba, has the back but little less brightly yellowish than in *neglectum* of central and southern Perú and has the white

¹ Previous numbers 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, 894, 917, 930, 962, 963, 994, 1042, 1043, 1044, and 1045.

loral spot very much reduced in size but still apparent and all but touching the base of the yellow superciliary stripe, but the necklace of black dots is quite pronounced though very much weaker than that of *T. c. guttatum* of the Rio Negro, Brazil.

A male from the "Río Cenipa" (Cinipá), north of the Marañón, is greener on the back, like the type, and has the malar portion of the necklace well-developed but that across the chest all but obsolete. The white loral patch is well developed, narrowly meeting the yellow superciliary stripe.

Two adult skins from Teffé are not certainly distinct from the Peruvian skins. One of them, a female, is a little more broadly marked on the necklace than the Río Seco specimen, about as heavily as the Río Cinipá example but with the necklace complete. The second Teffé bird, a male, is still more heavily marked though less than *guttatum*. An immature female from Teffé also has the full necklace. All three skins from this locality have the white loral patch separated from the yellow superciliary by only one or two black feathers.

Hellmayr [1927, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII (5), p. 295] refers a male from Pebas, Perú, to *guttatum* but this assignment may need examination in the light of the present discussion.

One other possibility remains. The white loral spot is not necessarily perfectly definitive. As noted above, the Río Seco specimen has a very small one. One example of *neglectum*, which has black lores, shows a single white feather on one side in this region. The allied *nigriceps*, which also normally has black lores, occasionally shows a well-developed white patch in front of the eye. It is possible, therefore, that the type of *chrysocrotaphum* is an aberrant example of the form recently named *neglectum* rather than a more normal example of the form to which I have assigned it. The relatively dark back and the presence of actual, though minute, pectoral and malar spots argue against this conception and in favor of the arrangement I have adopted.

In any case, I cannot be certain that the

Teffé birds do not represent the most heavily spotted extreme of *chrysocrotaphum*. The connection of the range between Teffé and Río Seco is uncertain. It appears that *neglectum* is found on the Ucayali as far downstream as Sarayacu but it is quite possible that *chrysocrotaphum* crosses the mouth of the river. Future collections in the region will be necessary to determine the point. For the present, however, I prefer to consider the Teffé birds as belonging to the typical subspecies.

I have two specimens of *guttatum*, one from the Rio Negro, Brazil, and one from the western bank of the Cassiquiare, Venezuela. Both agree in distinction from the Teffé birds by being darker green above, about like *illigeri*, and even more heavily spotted below, especially the Cassiquiare bird. The Teffé specimens, therefore, stand intermediate between the Peruvian specimens of *chrysocrotaphum* and these examples of *guttatum*.

The occurrence of *guttatum* on the Cassiquiare is of particular interest in view of the fact that a single specimen from the foot of Mt. Duida is quite typical *pictum*, with white lores and a black-spotted necklace but no yellow superciliary stripe, although this is faintly suggested in several specimens by traces of pale grayish margins on the feathers of the supra-auricular region. Although there are no lengthy series of specimens available to show full intergradation between *pictum* and the members of the *chrysocrotaphum* group or with *nigriceps*, all these forms are exceedingly closely related and together form a well-defined specific group for which I use a single specific name.

***Todirostrum chrysocrotaphum* *neglectum* Carriker**

Todirostrum (sic) *chrysocrotaphum neglectum* CARRIKER, 1932 (Jan. 21), Proc. Acad. Nat. Sci. Phila., LXXXIII, p. 460—Huacamayo, Perú; ♂; Acad. Nat. Sci. Phila.

This form was long misidentified as true *chrysocrotaphum* in spite of the absence of the white malar spot which is one of the prominent features of that form. The yellow superciliary stripe is equally long

in both subspecies, passing above the eye to the upper anterior corner or at least anteriorly of the middle. One specimen from Rosarinho has one white feather on the loreal region of the left side and there are occasional traces of fine black spots on the sides of the breast though none in the malar region. The back is more yellowish than in the typical form and the black of the cap in most cases is a little less broadly extended posteriorly.

This form ranges to the Chanchamayo Valley in central Perú and apparently down the Ucayali as far as Sarayacu, inhabits northern Bolivia, and passes down the left bank of the Rio Madeira to near its mouth, being recorded also from the upper Rio Purús.

There are no records of any form of the species from the right bank of the Madeira but two examples from the left bank of the Tapajoz are very distinct and represent an undescribed form to be known as follows.

***Todirostrum chrysocrotaphum similis*,
new subspecies**

TYPE from Igarapé Amorin, Rio Tapajoz (left bank), Brazil. No. 288,730, American Museum of Natural History. Adult female collected July 2, 1931, by Alfonso M. Olalla.

DIAGNOSIS.—Similar to *T. c. chrysocrotaphum* of northern Perú but without malar or pectoral spots and with the yellow superciliary stripe not passing above the orbit but restricted to the supra-auricular region where it involves perceptibly also the upper border of the auriculars; black of the crown less broadly extended over the nape and with less evident yellowish collar between the nape and the mantle. Pattern of crown and superciliary stripe as in *T. c. illigeri* of the Pará district which, however, lacks the white loreal spot present in *similis*.

RANGE.—Known only from the left bank of the Rio Tapajoz near the mouth.

DESCRIPTION OF TYPE.—Top of head steel blue-black to about the middle of the occiput where it is replaced by the Yellowish Oil Green of the hind neck; the back brighter, Warbler Green × Oil Yellow. Loes with a large, triangular white patch reaching the anterior border of the orbit but separated from the nasal feathering and from the gape by a broad black space; a broad, deep yellow stripe from the upper posterior border of the orbit over the auriculars to the sides of the neck, involving the upper border of the auricular feathering but not passing over the orbits where the blue-black of the crown separates the white loreal patch from the

anterior end of the yellow stripe; auriculars, except the yellow upper margin, blue-black, the color extending under the eye to meet the black of the base of the bill; chin and base of malar region white; remainder of malar region and throat Lemon Yellow; breast, sides, and belly Lemon Yellow tinged with Lemon Chrome; flanks and crissum paler and duller. Remiges blackish; outer primary with a minute, buffy yellow outer margin; remaining primaries with narrow green borders; secondaries with outer margins broader and yellower, becoming whitish toward the tips of the inner secondaries and on the tertials; upper wing-coverts blue-black, the median series broadly tipped and the greater series exteriorly margined with deep yellow forming two conspicuous bars; outer primary-coverts with a dull yellow outer margin; under wing-coverts light, clear yellow; inner margins of remiges whitish. Tail dusky brown with greenish outer margins and narrow pale tips on the feathers. Bill (in dried skin) black; feet dull slaty. Wing, 40.25 mm.; tail, 25; exposed culmen, 12; culmen from base, 14; tarsus, 15.

REMARKS.—A second specimen without determined sex differs only by slightly deeper yellow on the under parts, a little more blue-black on the occiput, and a slight trace of brighter yellow color on the hind neck, not well defined.

SPECIMENS EXAMINED

T. c. chrysocrotaphum.—

PERÚ:

(No exact locality), 1 (?)¹ (type);

Río Seco, 1 ♂;

Río Cinipá, 1 ♂.

BRAZIL:

Teffé, 1 ♂, 2 ♀.

T. c. neglectum.—

PERÚ:

Perené, 1 ♂, 1 ♀.

BOLIVIA:

San Mateo, 1 (?);

Falls of Rio Madeira, 1 (?).

BRAZIL:

Rio Madeira, Marmellos, 1 ♂;

Rosarinho, 1 ♂, 2 ♀.

T. c. similis.—

BRAZIL:

Rio Tapajoz, Igarapé Amorin, 1 ♀ (type);

Igarapé Brabo, 1 (?).

T. c. illigeri.—

BRAZIL:

Rio Tocantins, Baião, 1 ♂;

Pará, Flor de Prado, 1 ♂.

T. c. guttatum.—

BRAZIL:

Rio Negro, Igarapé Cacao Pereira, 1 ♂.

VENEZUELA:

Río Huaynia, junction with the Cassiquiare,
1 ♀.

¹ Specimen in Academy of Natural Sciences, Philadelphia.

T. c. pictum.—

VENEZUELA:

Mt. Duida, "Pie del Cerro," 1 ♀.

DUTCH GUIANA:

near Paramaribo, 2 ♂, 1 ♀, 2 (?);

"Interior," 1 ♀.

T. c. nigriceps.—

COLOMBIA:

Santa Marta, Bonda, 6 (?);

Malena, Antioquia, 1 ♂.

ECUADOR:

Naranjo, 1 ♀.

PANAMÁ:

Almirante, 2 ♂, 1 ♀;

[Lion Hill], 2 ♂.

COSTA RICA:

Jiménez, 1 ♂;

La Concepcion, 1 ♀.

Todirostrum calopteryx pulchellum

Selater

Todirostrum pulchellum SCLATER, 1874, P. Z. S. London for Dec., 1873, pp. 780, 781—Cosñipata, Dept. Cuzco, Perú; British Mus.

In spite of the apparently unoccupied area between the known ranges of *calopteryx* and *pulchellum* and certain differences of detail in coloration of these two birds, I believe they are sufficiently closely related to bear the same specific name. The general pattern is identical although *pulchellum* has the black of the auricular region extended forward toward the chin below the white malar stripe, a white loreal spot and supra-auricular patch, broader and paler outer margins of secondaries and tertials, slightly wider pale margins of the outer rectrices, and a darker back which is still green in the female and even in the male has a faint greenish tinge. There are traces of the loreal and supra-auricular white in some of the specimens of *calopteryx*. In any case, the differences mentioned are all of degree and not of kind.

Peruvian records are from Cosñipata and Yahuarmary.

SPECIMENS EXAMINED

T. c. calopteryx.—

ECUADOR:

Lower Río Suno, 4 ♂;

below San José, 4 ♂;

mouth of Río Curaray, 1 ♂, 2 ♀;

"Ecuador," 1 ♂.

T. c. pulchellum.—

PERÚ:

Candamo, 1 ♂;

La Pampa, 1 ♀;

Río Távares, 1 ♀.

Todirostrum cinereum peruanum

Zimmer

Todirostrum cinereum peruanum ZIMMER, 1930 (Dec. 10), Field Mus. Nat. Hist. Publ., Zool. Ser., XVII, p. 384—Vista Alegre, Perú; ♂; Field Mus. Nat. Hist.

San Ignacio, 4 ♂, 1 ♀; Huarandosa, 1 ♂, 1 ♀; Perico, 1 ♀; Chaupe, 2 ♂, 1 ♀; Lomo Santo, 1 ♀; Sauces, 1 ♂, 1 ♀; Jaen, 2 ♂, 1 ♀; Río Negro, west of Moyobamba, 1 ♂, 1 ♀; Río Seco, 1 ♂, 1 ♀; Uchco, 1 ♂, 1 ♀; Pozuzo, 1 ♂; Perené, 2 ♂, 1 (?); La Merced, 1 ♂, 1 ♀; Tulumayo, 2 (?); Utcuyacu, 2 ♂, 3 ♀; Santa Ana, Urubamba, 5 ♂, 1 ♀; Chauillay, 1 ♀.

This series confirms the characters given in the original description. Additional material demonstrates that the east-Ecuadorian birds also belong to this form, being quite strongly marked. Specimens are at hand from Zamora, Río Suno, Cerro Galeras, Oyacachi, mouth of Río Curaray, Sumaco, and San José.

All Peruvian records except from extreme northwestern Perú undoubtedly belong to *peruanum*. These include Vista Alegre, Chinchao, Río Colorado, Puerto Bermúdez, Moyobamba, Poco Tambo (= Pucatambo), San Ramón, Idma, San Miguel Bridge, Tarapoto, La Gloria, San Emilio, Maranura, Potrero, Huambo, Callacate, and Monterico.

Todirostrum cinereum sclateri

(Cabanis and Heine)

T(riccus) Sclateri CABANIS AND HEINE, 1859, Mus. Hein., II, p. 50—Perú (I suggest Tumbes as restricted type locality); ♀ juv.; Mus. Halberstadt.

Sullana, 2 ♂, 2 ♀; Samate, 1 ♀.

A series of sixty specimens from the above localities to southwestern Colombia shows no more than individual variations. The throat is sometimes definitely tinged with yellowish although the chin usually remains whitish. The yellow of the under parts is rather deeper than is shown by typical *cinereum*.

Todirostrum cinereum intermedium CARRIKER (1935, Proc. Acad. Nat. Sci. Phila., LXXXVII, p. 334—Chatarona, Bolivia) appears to be no more than a dark example of *T. cin. coloreum* RIDGWAY. The males

of *coloreum* are darker and grayer on the back than the females, with more broadly extended black on the head, although the type, supposedly a male, is more like the average female than the average male and may be wrongly sexed. The amount of white on the tip of the tail is very variable in all forms. In the series of twenty-one specimens of *coloreum* examined there are several males which agree well with the description of "*intermedium*."

Of two birds from "Pará," Lawrence Collection, without original labels, one is a good *cearae* and the other is *coloreum*. A single skin from Marajó Island appears to be *cearae*.

Todirostrum maculatum maculatum (Desmarest)

Todus maculatus DESMAREST, 1806, Hist. Nat. Tang. Manak. et Todiers, livr. 10, Pl. LXX—French Guiana; Paris Mus.

Todirostrum surinamense PENARD AND PENARD, 1910, Vog. Guyana, II, p. 214—Surinam; cotypes possibly in Amer. Mus. Nat. Hist.

Specimens of the present form from northern Maranhão, the Pará district, and the Rio Tocantins average more broadly striped on the under parts than typical Guianan specimens, but the distinction is so far from constant that I think no sub-specific separation can be maintained. Guianan specimens seem to have an average of more white on the auriculars, but this, too, is not consistently diagnostic.

Birds from the Rio Xingú are very close to the typical form but show a tendency toward the new form described below from the Tapajoz, though they appear to be nearer true *maculatum*.

Todirostrum maculatum signatum Sclater and Salvin

Todirostrum signatum SCLATER AND SALVIN, 1881, Ibis, p. 267—Nauta, Pebas, and Iquitos; some of the cotypes in British Mus.

Peruvian birds are distinguished from typical *maculatum* of French Guiana by a much paler cap, with less obvious black spotting and none of the solid black on the forehead, and usually with some incursion of greenish on the occipital region. White feathers in center of anterior crown absent or very few in number. The green of the

back is lighter in tone, the auriculars are less whitish, and the speckling of the under parts is somewhat duller.

Birds answering this description are almost entirely confined to eastern Ecuador and northeastern Perú whence there are records from Iquitos, Pebas, Nauta, and the "Upper Ucayali" [= near Cashiboya].

Typical *maculatum* is darker green on the back than *signatum*, often has distinctly whitish auriculars, and usually has the forehead and part of the crown heavily blackish. Specimens from the Tocantins, the Pará district, and northern Maranhão, Brazil, agree in general respects although some of the birds from this area have the speckling of the breast lengthened into rather obvious stripes while the auriculars tend to be more grayish. Other examples are not distinguishable from Guianan specimens. Xingú birds show a little more trend toward *signatum*.

The vast area between Teffé and the Tocantins is inhabited by a population that is variously intermediate between *maculatum* and *signatum* but strictly referable to neither. All of the specimens from this area have the top of the head rather strongly spotted with black but with little, if any, concentration of black on the forehead. Birds from the Rio Negro, except the lower left bank in the vicinity of Manaus, are somewhat darker green on the back than the others and have the gray ground-color of the cap carried more distinctly over the hind neck. Examples from Manaus, Faro, and the south bank of the Amazon between Teffé and the Rio Tapajoz average distinctly paler green on the back (darker than in *signatum*) and often have the hind neck somewhat greenish. The series from Faro shows the palest extreme of all but some of the Faro birds are indistinguishable from specimens from south of the Amazon.

It seems possible, therefore, to recognize two definite stages of intermediacy between *maculatum* and *diversum* to which names may be applied satisfactorily. Without such distinctive names, the birds from the whole central part of the range of the species would have to be treated by composite nomenclature.

The two recognizable intermediate forms may, therefore, be known as follows.

Todirostrum maculatum diversum,
new subspecies

TYPE from Igarapé Brabo, left bank of Rio Tapajoz, Brazil. No. 287,040, American Museum of Natural History. Adult male collected June 1, 1931, by Alfonso M. Olalla.

DIAGNOSIS.—General coloration similar to *T. m. maculatum* of French Guiana but back averaging lighter green; top of head with much less extensive black, the forehead more or less blackish with narrow gray margins and the rest of the cap gray with small but conspicuous blackish spots, sometimes reaching the hind neck; auriculars averaging less whitish; white streaking in the center of the anterior crown less pronounced than in most specimens of the typical form; hind neck less strongly grayish; wing-bars averaging broader and brighter yellow. Differs from *T. m. signatum* by darker green back, sharper and darker speckling on the breast, more whitish streaking on the anterior crown, and more decided black spotting on the whole top of the head.

RANGE.—South bank of the Amazon in Brazil from Teffé to the Rio Tapajoz and on the north bank of the Amazon from the lower left bank of the Rio Negro to Faro, Rio Jamundá.

DESCRIPTION OF TYPE.—Top of head Slate-Gray in general coloration with dusky blackish centers on the feathers giving a strongly spotted appearance; forehead with these spots larger, leaving narrow grayish margins; a few feathers in the center of the anterior crown with a white line on their inner margins, forming a small whitish patch in the area; hind neck gray with a slight olive tinge; back near Serpentine Green. Lores with a whitish line on upper border, passing narrowly over the orbit; tips of nasal plumes also whitish; auriculars gray with some whitish and dusky streaks; chin, throat, and malar region white with prominent, obovate, blackish streaks; breast Citron Yellow with similar streaks or spots; sides more olivaceous, with streaks or stripes broader and less distinct, passing down the Citron Yellow flanks; belly and under tail-coverts clear Citron Yellow. Wings blackish brown; remiges exteriorly margined with Yellowish Olive, more broadly on the secondaries and still more broadly on the tertials where the inner borders of the marginal stripes are Marguerite Yellow; lesser upper wing-coverts like the back; median and greater series sooty with Primrose Yellow tips on the median series and tips and outer margins of that color on the greater series, forming two conspicuous wing-bars; under wing-coverts Barium Yellow; narrow inner margins of the remiges whitish. Tail blackish; outermost rectrices with most of outer web and a broad border on the terminal portion of the inner web Marguerite Yellow; subexternal pair with similar markings narrower; remaining rectrices with narrow

greenish outer margins and a fine, yellowish border around the tips of the feathers. Maxilla (in dried skin) blackish; mandible with broad, basal area, narrow line on subterminal part of gonys, and a small subterminal portion dull whitish, remainder of mandible brown; feet pale brown. Wing, 44.5 mm.; tail, 30; exposed culmen, 14; culmen from base, 17; tarsus, 18.

REMARKS.—Females similar to the males.

As noted above, specimens from part of the range of *diversum* show variational tendencies in one direction or another. Birds from Teffé often approach *signatum* but average closer to *diversum*; birds from the Xingú approach the present form but average closer to *maculatum*. Specimens from Faro, north of the Amazon, sometimes match typical examples of *diversum* but some of the specimens from this locality are nearly as pale green on the back as the palest *signatum* though most of these examples still have stronger spotting on the cap than Peruvian birds. Although somewhat variable, therefore, *diversum* is fairly consistent in the characters that distinguish it from the other forms.

The second new form, from the Rio Negro, may be known as follows.

Todirostrum maculatum annectens,
new subspecies

TYPE from Igarapé Cacao Pereira, lower right bank of Rio Negro, Brazil. No. 312,224, American Museum of Natural History. Adult male collected January 17, 1930, by the Olalla brothers.

DIAGNOSIS.—Differs from *T. m. maculatum* of French Guiana by less black on the top of the head which is gray with black central spots, sometimes with forehead more noticeably blackish but not the crown; whitish-streaked area in center of fore part of crown less pronounced; auriculars less whitish, more grayish; hind neck similarly extensively gray, not tinged with olive as in *diversum* and *signatum*. Differs from *diversum* by the darker green back and more extensively gray hind neck; wing-bars narrower and duller.

RANGE.—Right bank of the lower Rio Negro, Brazil, crossing to the left bank above the junction of the Rio Branco.

DESCRIPTION OF TYPE.—General features and pattern as in the description of *T. m. diversum*, preceding, with the following exceptions: back near Olive Green; ground-color of top of head dark Slate-Gray continued, without the black spots of the crown and occiput, over the hind neck; wing-bars rather dull Reed Yellow.

Wing, 45 mm.; tail, 28; exposed culmen, 13; culmen from base, 15.1; tarsus, 17.1.

REMARKS.—Females similar to the males.

Young birds of the various forms are not always distinguishable from each other since the colors and markings are all duller and less diagnostic and the top of the head often lacks all trace of any black markings. Nevertheless, the cap in the young of *maculatum* and *annectens* appears to be somewhat darker gray than in *diversum* and *signatum*.

I have a single specimen from the Rio Branco which is in such poor condition that accurate determination of its identity is impossible though the remnants of plumage on the cap appear to be gray rather than blackish while the back is about the color shown by *annectens* to which I refer this skin.

To recapitulate the characters of the four forms here recognized, *maculatum* has the most extensively blackish cap; *annectens* resembles *maculatum* in its generally dark colors with relatively duller wing-bars but has the top of the head spotted with black rather than more evenly blackish; *signatum* has the palest upper surface with least prominent spotting on the cap; *diversum* has slightly darker upper parts (paler than in *annectens*) with the spotting of the cap heavier than in *signatum* and about as in *annectens*, and the wing-bars averaging perhaps broader than in any of the other forms.

Single specimens are not always recognizable but even in small series of adults, the characters appear to be diagnostic.

SPECIMENS EXAMINED

T. m. maculatum.—

FRENCH GUIANA:

Cayenne, 5 ♂, 4 ♀;
Roche-Marie, 4 ♂;
Isle Le Pere, 1 ♂.

DUTCH GUIANA:

Paramaribo, 1 ♂¹, 4 (?)¹;
Little Wanica, 1 ♀¹.

BRITISH GUIANA:

Bartica Grove, 1 ♂;
Abary, 1 (?).

BRAZIL:

Maranhão, Estiva, 2 ♂, 1 ♀;

Anil, 1 ♀;

? São Luiz, 1 (?);

Pará, 1 ♀;

Rio Tocantins, Baião, 7 ♂;

Rio Xingú, Tapará, 2 ♂, 1 ♀, 2 (?);

Porto de Moz, 1 ♀;

Villarinho do Monte, 1 ♀;

Forte Ambe, 1 ♂.

T. m. annectens.—

BRAZIL:

Rio Negro, Igarapé Cacao Pereira, 14 ♂

(including type), 6 ♀, 2 (?);

Muirapinima, 4 ♂, 3 ♀;

Tauapessasu, 1 ♂;

Craveira, 2 ♂, 1 ♀;

Santa Isabel, 2 ♂, 3 ♀;

Santa Maria, 1 ♀;

Uacará, 1 ♂;

Barcellos, 1 ♂;

Rio Branco, Caracarahy, 1 ♀.

T. m. diversum.—

BRAZIL:

Rio Tapajoz, Igarapé Brabo, 4 ♂ (including type), 2 ♀;

Tauary, 3 ♂, 1 ♀;

Aramanay, 3 ♂, 3 ♀;

Itaituba, 1 ♀;

Ynajatuba, 1 ♂;

Santarem, 1 (?);

Rio Amazonas, Villa Bella Impe atriz, 8 ♂, 6 ♀, 1 (?);

Rio Madeira, Marmellos, 1 ♂;

Calamá, 1 (?);

Borba, 2 ♂, 1 (?);

Igarapé Auará, 2 ♀;

Rosarinho, 12 ♂, 7 ♀, 5 (?);

Santo Antonio de Guajará, 4 ♂, 2 ♀, 1 (?);

Rio Amazonas, Tefé, 7 ♂, 3 ♀;

Rio Jamundá, Faro, 5 ♂, 9 ♀;

Rio Negro, Manaos, 9 ♂, 4 ♀.

T. m. signatum.—

PERÚ:

Nauta, 2 ♂;

Puerto Indiana, 2 ♂;

Sarayacu, 3 ♀;

Santa Rosa, 2 ♂, 3 ♀.

ECUADOR:

mouth of Río Curaray, 2 ♂, 1 ♀;

(no other locality), 1 (?).

Todirostrum latirostre caniceps (Chapman)

Euscarthmus latirostris caniceps CHAPMAN, 1924 (June 20), Amer. Mus. Novitates, No. 118, p. 7.—Florencia, Río Caquetá, Colombia; ♂; Amer. Mus. Nat. Hist.

Specimens from northern Perú, from both sides of the Marañón, agree with the type, a topotype, and four east-Ecuadorian specimens. The relatively dark, grayish cap (sometimes extended over the hind neck), dark green back, deep rufous sides of the head, the rufescent wing-bars (less

¹ Specimens collected by Penard and possibly the cotypes of "*T. surinamense*."

golden than in the other forms), strongly ochraceous thighs, greenish flanks, dark olive sides, and often greenish-yellow belly distinguish this form. Young birds have the top of the head olivaceous, hardly darker than the back, and the sides of the head dull cinnamomeous buff, and an occasional adult female retains a tendency in the same direction, not very obvious except in contrast with the adult males.

Specimens from São Paulo de Olivença, Brazil, kindly lent by Mr. Todd of the Carnegie Museum, are inseparable from the series mentioned and skins from Teffé also belong to *caniceps*.

Birds from both banks of the lower Rio Madeira are recognizably distinct, being markedly paler grayish on the top of the head, duller cinnamomeous on the sides of the head, less brightly greenish and yellowish on the lower under parts, and with more of an Old Gold, less tawny, hue on the shoulder and upper wing-coverts. These birds represent *T. l. latirostre*, described from Borba, on the right bank of the lower Madeira, and are quite different from Matto Grosso specimens that must bear the name *ochropterum*. *T. l. ochropterum* has the top of the head definitely brownish, of a light tone but not at all grayish. Furthermore, the under parts are distinctly paler, with a minimum of drab shading across the breast and on the sides, and with the sides of the head paler and more buffy than in *latirostre*; the entire back has a golden tinge that is distinct from the clearer green of *latirostre* or *caniceps*.

Dr. Hellmayr, having only the old type of *latirostre* for comparison, concluded that the Matto Grosso birds were inseparable from it and relegated *ochropterum* to synonymy. On the basis of this determination, Mr. Todd described a form from the Rio Purús which he called *difficile*. Comparison of Purús birds, kindly lent by Mr. Todd, with the series of *latirostre* now available, shows that the Purús examples are not distinguishable from *latirostre* although they are, as Mr. Todd found, quite distinct from Matto Grosso specimens.

T. l. senectum from near Obidos and Santarem, Brazil, is not very strongly marked

and some of the characters ascribed to it must be modified in view of the fact that the material used for original comparison contained three forms under one name.

According to the material before me, *senectum* has the darkest and grayest chest of the various forms, and the clearest white throat and belly, thus having less of a yellowish tinge over the whole under parts than any other form. The upper parts are likewise the dullest olive of all known forms and the top of the head is the most neutral in hue with a faint brownish tone instead of the grayish of *latirostre*. The sides of the head are slightly darker than in *latirostre*, as are the wing-markings, but they are duller than in *ochropterum* or *caniceps*.

These characters are not very pronounced and barely suffice to distinguish the form. Occasional specimens from Villa Bella Imperatriz, show a tendency in that direction though they appear to be closer to typical *latirostre*.

I am unable to place the birds from southeastern Perú satisfactorily since they present some of the characters of both *caniceps* and *ochropterum*. Birds from northern Bolivia are much the same and one specimen from near central Perú represents the same form. Consequently I believe it may be well to recognize the following intermediate form.

***Todirostrum latirostre mixtum*,**
new subspecies

TYPE from Candamo, southeastern Perú. No. 146,217, American Museum of Natural History. Adult female collected December 11, 1916, by Harry Watkins; original No. 442.

DIAGNOSIS.—Intermediate between *T. l. caniceps* of Colombia, Ecuador, and northern Perú, and *T. l. ochropterum* of the Matto Grosso region of Brazil, having the back with some of the golden tinge of *ochropterum* but the sides of the head more deeply rufescent than in that form, agreeing with *caniceps*; lateral under parts distinctly greenish as in *caniceps*; top of head paler than in *caniceps*, darker than in *ochropterum*, and olive-grayish rather than brownish.

RANGE.—Central to southeastern Perú and across northern Bolivia in the La Paz and Cochabamba regions, in the Tropical Zone.

DESCRIPTION OF TYPE.—Top of head near Deep Olive; lores and a broad space around the eye Cinnamon × Sayal Brown with a strong tinge of the same color across the forehead and

over the auriculars; back Dull Citrine; chin and throat dull whitish, tinged with grayish at sides; chest light grayish, tinged with olive on the sides; belly Marguerite Yellow; flanks olivaceous; thighs brownish, becoming Tawny-Olive on lower portion. Wings dark brown; remiges externally edged with Light Yellowish Olive, becoming paler and somewhat whitish on the tertials; exposed portions of lesser upper wing-coverts, broad tips of the median series, and tips and outer margins of the greater series Raw Sienna \times Antique Brown; under wing-coverts Amber Yellow near carpal margin, passing through Barium Yellow to whitish on the inner feathers; inner margins of remiges narrowly dull whitish; tail dark brownish, with external margins Light Yellowish Olive, with the tips of the feathers finely and indistinctly pale, and with a large, subterminal dusky area apparent on the three outermost feathers. Bill (in dried skin) black; feet light brown. Wing, 46 mm.; tail, 33; exposed culmen, 10.5; culmen from base, 14; tarsus, 17.

REMARKS.—An adult of unknown sex from southeastern Perú is rather brighter (fresher) than the type and shows the characters excellently. Two males from the same region are more juvenile, judging by the texture of the plumage, and have the whole top of the head green like the back and the sides of the head pale and dull as in the young of other forms. A skin from the Chanchamayo region of central Perú has the top of the head darker and grayer than the type, approaching slightly the character of *caniceps* though paler than in any of my series of that form, but the back is quite strongly golden in hue though not so golden as in *ochropterum*.

A female from Guanay, La Paz, Bolivia, is in execrable condition but shows the cap darker than the type and the sides of the head only a little paler. Six skins from the Cochabamba region of Bolivia approach *ochropterum* in the browner hue of the cap though the back is greener, not so golden, and the sides of the head are darker and more rufescent than in that form.

Thus, the southeastern portion of Perú appears to be the center of distribution and variation in the new form with a tendency toward *caniceps* in central Perú and a tendency toward *ochropterum* in central-northern Bolivia.

I attempted to save the name *difficile* by associating the Rio Purús form with the present birds in distinction from *latirostre*

of the lower Rio Madeira, but such association cannot be justified. The Purús and Río Madeira birds are decidedly grayer on the cap, brighter and clearer green on the back, and duller on the sides of the head and upper wing-coverts.

A record from La Merced should belong to *mixtum* as should other records from Cochabamba, Bolivia, but D'Orbigny's description of a female from Chiquitos, Bolivia, suggests that the Chiquitos form is nearer *ochropterum*.

Records from Nauta and Chamicuros should belong to *caniceps*.

SPECIMENS EXAMINED

T. l. latirostre.—

BRAZIL:

- Rio Madeira, Borba, 1 ♂;
- Igarapé Auará, 1 ♂, 1 (?);
- Rosarinho, 3 ♂, 5 ♀;
- Villa Bella Imperatriz, 3 ♂, 2 ♀;
- Rio Purús, Nova Olinda, 2 ♂¹, 1 ♀¹.

T. l. ochropterum.—

BRAZIL:

- Matto Grosso, Chapada, 4 ♂ (incl. cotype), 6 ♀ (incl. cotype), 1 (?);
- São Lorenzo River, 2 ♂;
- Rio Roosevelt, 1 ♀;
- Descalvados, 1 ♂, 1 ♀;
- Agua Blanca de Corumbá, 1 ♂, 1 ♀;
- Uturity, 1 ♀.

T. l. senectum.—

BRAZIL:

- Rio Tapajoz, Santarem, 2 ♂¹, 1 ♀¹;
- Islands, Obidos, 3 ♂¹.

T. l. caniceps.—

COLOMBIA:

- Florencia, 2 ♂ (incl. type).

ECUADOR:

- Zamora, 2 ♂;
- mouth of Río Curaray, 1 ♂, 1 ♀.

PERÚ:

- Puerto Indiana, 1 ♂;
- Sarayacu, 2 ♂, 3 ♀;
- Santa Rosa, Ucayali, 1 ♂, 3 ♀;
- Vista Alegre, 3 ♂², 1 ♀².

BRAZIL:

- São Paulo de Olivença, 2 ♂¹;
- opposite Tonantins, 1 ♂¹;
- Teffé, 2 ♀.

T. l. mixtum.—

PERÚ:

- Candamo, 1 ♂, 1 ♀ (type);
- Astillero, 1 ♂, 1 (?);
- Chanchamayo, 1 ♀.

BOLIVIA:

- Guanay, 1 ♀;
- Todos Santos, 3 ♂, 1 ♀, 1 ♂², 1 ♀².

¹ Specimens in Carnegie Museum, Pittsburgh.

² Specimens in Field Museum of Natural History, Chicago.

Todirostrum capitale Sclater

Todirostrum capitale SCLATER, 1857, P. Z. S. London, XXV, p. 83, Pl. CXXV, fig. 2—Río Napo, Ecuador; ♀; British Mus.

Todirostrum picatum SCLATER, 1858, P. Z. S. London, XXVI, p. 70—Río Napo, Ecuador; ♂; British Mus.

A single female from Río Negro, west of Moyobamba, furnishes the first record of this species south of the Marañón and the first record for Perú.

This bird shows certain extremes of coloration that suggest the possibility of separating a Peruvian subspecies, but more material will be needed to determine the constancy of the characters. The Río Negro specimen has the flanks more broadly and a little more deeply yellow than any of the Ecuadorian skins, with the sides of the breast greenish (as they are in a few Ecuadorian birds), the pectoral band more nearly complete, the malar region darker than average, the dark loreal spot pronounced, and the chin with more suggestion of dusky spotting. However, no two of the Ecuadorian females at hand are exactly alike in details and it is possible that the features of the Peruvian specimen are no more than extreme expressions of individual variation.

SPECIMENS EXAMINED

T. capitale.—

ECUADOR:

- Río Suno, above Avila, 2 ♂, 2 ♀;
- lower Río Suno, 6 ♂, 1 ♀;
- below San José, 3 ♂, 2 ♀;
- mouth of Río Curaray, 3 ♂, 2 ♀;
- Río Napo, 1 ♂, 1 ♀;
- Sarayacu, 1 ♂ 1 ♀.

PERÚ:

- Río Negro, 1 ♀.

Todirostrum plumbeiceps obscurum,
new subspecies

TYPE from Santo Domingo, southeastern Perú; altitude 6000 feet. No. 146,225, American Museum of Natural History. Adult male collected September 12, 1916, by Harry Watkins; original No. 111.

DIAGNOSIS.—Differs from *T. p. viridiceps* of northwestern Argentina by clearer (less brownish) and darker green back, darker gray cap, deeper cinnamonaceous sides of the head with heavier dark spot on the auriculars, darker gray chest, duller and greener outer margins of the remiges, narrower and paler (less buffy) wing-bars, and darker and greener flanks. Bill

somewhat broader, especially toward the tip. Approaches *T. p. plumbeiceps* of São Paulo, Brazil, more closely in respect to the color of the sides of the head but has the cap darker, the chest strongly gray instead of brownish, the back and outer margins of the wings darker and greener, and the flanks greener.

RANGE.—Southeastern part of Perú in the Subtropical Zone near Santo Domingo, possibly ranging eastward to the Cochabamba region of Bolivia.

DESCRIPTION OF TYPE.—Top of head, including upper border of nasal feathering, Dark Neutral Gray, passing into Dark Olive Green on the hind neck and the remainder of the upper surface; whole sides of the head from lower part of nasal feathering through the lores and a broad superciliary stripe to the sides of the neck near bright Sayal Brown, varied by a large dusky patch on the posterior part of the auriculars; malar region equally bright; chin and throat paler, near Ochraceous-Buff; chest Light Neutral Gray, varied by narrow white lateral margins of the feathers which give an indistinctly streaked appearance; sides of breast more evenly gray, slightly tinged with olive; belly white with some indistinct shaft streaks of dusky continuing the streaked appearance of the chest; flanks tinged with light olive green. Remiges dark brownish, exteriorly margined, narrowly, with Roman Green except on innermost secondaries and tertials where the margins are a little broader and whitish; median and greater upper wing-coverts blackish with conspicuous tips Olive-Buff, forming two wing-bars; lesser coverts like the back; under wing-coverts pale yellowish or whitish, tinged with buff along the carpal margin. Tail dark brown with narrow outer margins the color of the back. Bill (in dried skin) blackish; feet light brown. Wing, 45.25 mm.; tail, 35.5; exposed culmen, 11; culmen from base, 15; tarsus, 19.

REMARKS.—Female similar to the male but a little lighter in coloration.

A single specimen from Roquefalta, Cochabamba, Bolivia, is intermediate between the present form and *viridiceps*, and it is impossible to say to which one it ought to be referred. All of the characters given in the diagnosis of the present form are shown in a modified degree in the Bolivian specimen, not so strongly as in the Peruvian skins. In view of the geographic position of the locality, I refer the Bolivian bird to the new form for the present.

This is the first recorded occurrence of this species from Perú.

The shape of the bill in this form is very obviously that of *Todirostrum* and not *Euscarthmornis* although there is no question that the form is a subspecies of

plumbeiceps. Consequently I transfer the entire species to the genus *Todirostrum* together with *russatum* which is an obvious representative though perhaps specifically distinct and whose bill is equally characteristic.

SPECIMENS EXAMINED

T. p. plumbeiceps.—

BRAZIL:

- São Paulo, Victoria, 2 ♂, 1 ♀;
 Alto da Serra, 1 ♂;
 Espirito Santo, Engenheiro Reeve, 1 ♀;
 Rio de Janeiro, Therezopolis, 3 ♂.

T. p. viridiceps.—

ARGENTINA:

- Jujuy, Ledesma, 3 ♂, 2 ♀;
 Río San Francisco, 1 ♀.

T. p. obscurum.—

PERÚ:

- Santo Domingo, 3 ♂ (incl. type), 2 ♀.

BOLIVIA:

- Roquefalta, 1 ♂.

Euscarthmornis striaticollis amazonicus
 (Hellmayr)

Euscarthmus striaticollis amazonicus HELLMAYR, 1914 (February), Novit. Zool., XXI, p. 168—Pebas, Perú; ♂; Paris Mus.

Hellmayr originally described this form from three old skins in the Paris Museum, collected by Castelnau and Deville. Later examination of three relatively fresh specimens in Field Museum of Natural History, from Moyobamba, led him to conclude that some of the designated characters of *amazonicus* were due to post-mortem change in the old type and paratypes, whereupon he drew up an emended diagnosis based on the Moyobamba specimens.

I have an adult male in fresh plumage from Apayacu, not far from Pebas and on the same side of the Amazon, which I have compared with the Moyobamba birds, kindly lent me by Field Museum of Natural History. The Apayacu bird agrees very well with the original description of the Pebas birds while the Moyobamba skins are very different, from which it appears that the original characterization of *amazonicus* is correct.

E. s. amazonicus has the top of the head essentially green like the back though with dusky centers on the feathers of the crown (at least in the Apayacu bird) as in some

examples of the other forms. The green of the whole upper parts is dark, near Roman Green, without either yellowish or brownish tone. The whitish spot on the upper part of the lores is very inconspicuous, whereas it is broad and prominent in *E. s. striaticollis* and *griseiceps*. The chest is rather strongly shaded with olive green, especially laterally and the yellow of the belly has a more greenish tone than in the other two mentioned forms. There is a slightly more yellowish tinge on the outer margins of the greater upper wing-coverts than in *striaticollis* or *griseiceps* but it is not pronounced enough to form a decided wing-bar. The auriculars are more olive than brownish. The streaks on the throat and chin are broad but less sharply defined than in the other forms; the whole gular area is slightly yellowish and not so clearly white as in the others.

On the other hand, the Moyobamba birds agree very closely with a new form described on a later page where these specimens will be discussed in greater detail.

Euscarthmornis griseicollis iohannis
 (Snethlage)

Euscarthmus iohannis SNETHLAGE, 1907 (December), Orn. Monatsber., XV, p. 193—Monte Verde, Río Purús, Brazil; ♂; Pará Mus.

I have no topotypes of this form, but a male from Sarayacu, lower Ucayali, agrees with the characterization of *iohannis* in respect to the presence of definite, yellowish wing-bars. Compared with the male of *amazonicus* from Apayacu it is otherwise very similar, having the top of the head as green as the back, more faintly streaked with dusky on the crown, though the tone of green is paler than in the Apayacu skin. The sides of the breast likewise are lighter green and the streaks on the throat are finer and sharper than in the Apayacu male. The lores have a faint suggestion of buff above but are much as in *amazonicus*.

There is a possibility that the Sarayacu specimen is a young example of *amazonicus* which, in juvenal plumage, may have light wing-bars, judging by immature specimens of at least one other form. However, this bird appears to be adult. Since the character shown is that of *iohannis*, I refer the

Sarayacu skin to that form pending information to the contrary.

Ten birds from the Rio Tapajoz and the upper Madeira (Rio Preto), Brazil, show the grayish cap (light Hair Brown) distinguishing *griseiceps*. Six birds from the Matto Grosso region are distinctly different and may be known as follows.

***Euscarthmornis striaticollis obscuriceps*,
new subspecies**

TYPE from Abrilongo, Matto Grosso, Brazil. No. 33,358, American Museum of Natural History. Adult male collected February 19, 1885, by H. H. Smith.

DIAGNOSIS.—Similar to *E. s. striaticollis* of Bahia but back a little darker and clearer (less brownish or golden) green; top of head decidedly darker brown; sides of breast averaging darker and more greenish; under wing-coverts deeper yellow. Differs from *E. s. griseiceps* of the Rio Tapajoz by darker green back and brown, rather than gray, cap; throat more definitely tinged with yellowish. Differs from *E. s. iohannis* (as represented by a specimen from Sarayacu, Perú) by brown, instead of green, cap, less yellowish upper throat, and decidedly more uniform upper wing-coverts, without yellowish tips.

RANGE.—Matto Grosso Plateau, Brazil, and region of Moyobamba, Perú.

DESCRIPTION OF TYPE.—Top of head Chaetura Drab with broad centers of the feathers still darker; back Yellowish Olive. Lores narrowly pure white with a conspicuous whitish eye-ring; sides of head browner than the back but lighter than the crown; sides of neck more olivaceous; back dark Serpentine Green. Chin and throat whitish, with a slight yellowish tinge becoming more pronounced on the lower throat (Sulphur Yellow) and with whole area broadly striped with dusky brown; sides of breast Yellowish Olive; center of breast with olive shaft-stripes and Citron Yellow edges; belly clear Citron Yellow; flanks indistinctly striped with dull olive. Wings dusky brown; primaries and outer secondaries edged externally with the color of the back; inner secondaries with margins brighter, more yellowish; inner tertials with outer two-thirds of outer web occupied by a white stripe bordered externally by a narrow greenish edge; upper wing-coverts near the color of the back; under wing-coverts near Amber Yellow; inner margins of remiges narrowly pale yellowish. Tail dusky brown with external margins of the rectrices a little brighter green than the back. Bill (in dried skin) dusky brown; feet light brown. Wing, 52.5 mm.; tail, 40.5; exposed culmen, 12; culmen from base, 15; tarsus, 17.25.

REMARKS.—Female very similar to the male, perhaps averaging very slightly

smaller, but with the outer web of the outer rectrix (in the specimens examined) marked by a yellowish-white outer border that passes around the tip to the distal part of the inner margin. A similar sexual distinction is to be seen in the series of *striaticollis* and *griseiceps* though it is not always pronounced. I have seen no distinct development of this marking in the males.

The three Moyobamba specimens referred by Hellmayr to *amazonicus* (q.v.) are so similar to the Matto Grosso birds that I can find no excuse for separating them taxonomically in spite of the broad hiatus in the range. Two of the Moyobamba specimens are adult, male and female, while the third is an immature female. The adult male is a very little darker green on the back than the Matto Grosso series but the female is hardly different from the type. Both adults have the dark, brownish crown of *obscuriceps* and even the young bird shows a brownish tone on the top of the head. The young bird has all the colors and markings very dull but the distal margin of the greater upper wing-coverts is broadly pale buffy, forming a noticeable wing-bar. Both the old and young females have the whitish outer margin of the outermost rectrix mentioned in the preceding paragraph.

A single specimen from the Rio Araguaya, 550 meters elevation, Goyaz, is somewhat intermediate between this form and typical *striaticollis* but rather closer to *obscuriceps* to which I refer it.

I am unable to place with certainty the form described as *Euscarthmus striaticollis* (sic) *griseostriatus* Sztolcman, 1926 (Nov. 1), Ann. Zool. Mus. Pol. Hist. Nat., V (3), p. 160—Salto Guayra, Rio Paraná; ♂; Warsaw Mus. The author had a single skin of the typical form for comparison and the distinctions he notes as separating the new form from *striaticollis* are not uniformly convincing. The grayish-olive, instead of "black," streaking on the chest might be no more than individual variation since it is a variable feature of *striaticollis*. The measurements of the new form, *griseostriatus*, show a very long tail much as in *E. orbitatus* and the description of the broad white stripe on the

outer web of the innermost tertial reaching the shaft also agrees with *orbitatus*. The whole top of the head and the back are said to be grayish olive, presumably uniform, which still further suggests *orbitatus*. On the other hand, nine specimens from Banhado, Cará Pintada, and Vermelho are identified by Sztolerman as *orbitatus*, though with a query, but are described as having the breast and throat gray and the middle of the belly white which is certainly not the case in *orbitatus*. I am unable to hazard a guess as to the identity of these birds.

There are no additional Peruvian records except one from Moyobamba (Steere) and the type and paratypes of *amazonicus* from Pebas. The Moyobamba bird should belong to *obscuriceps*.

The apparent hiatus in the range of *obscuriceps* is interesting but not surprising in view of the rarity of the species in collections from the western part of its range. It is probable that the connection between the Moyobamba region of Perú and the Matto Grosso region of Brazil is effected, in the present case, along the mountain-sides through central and southeastern Perú and across northern Bolivia, a course followed by various other birds. Connection by way of the Amazonian lowlands is prevented by the three forms, *amazonicus*, *iohannis*, and *griseiceps*, that intervene. It appears, therefore, that *obscuriceps* will be found to have a slightly more elevated range than the other members of the species. Future collections from southern Perú and Bolivia may produce the evidence needed to close the gap in the known distribution of this form.

SPECIMENS EXAMINED

E. s. straticollis.—

BRAZIL:

- Bahia, 4 ♂, 1 ♀, 3 (?);
- Maranhão, As Mangueiras, 1 ♂;
- Flores, 2 ♂, 2 (?);
- Piauh, Therezina, 1 (?);
- Freicheiras, 1 (?).

E. s. griseiceps.—

BRAZIL:

- Rio Tapajoz, Santarem, 6 ♂, 1 ♀;
- Caxiricatuba, 1 ♀;
- Rio Preto, Santa Isabel, 1 ♂, 1 ♀.

E. s. obscuriceps.—

BRAZIL:

- Matto Grosso, Abrilongo, 1 ♂ (type);
- Chapada, 1 ♀;
- Descalvados, 2 ♂, 1 ♀;
- Campos Novos, 1 ♀;
- Rio Araguaya, 1 ♂.

PERÚ:

- Moyobamba, 1 ♂¹, 2 ♀¹.

E. s. iohannis.—

PERÚ:

- Sarayacu, 1 ♂.

E. s. amazonicus.—

PERÚ:

- Apayacu, 1 ♂.

Euscarthmornis zosterops zosterops (Pelzeln)

Euscarthmus Zosterops PELZELN, 1868, Orn. Bras., II, p. 173—part, Marabitanas (type) and San Carlos, Rio Negro, Brazil; Vienna Mus.

Idioptilon rothschildi BERLEPSCH, 1907, Ornis, XIV, p. 356—Ipousin, Rio Approuague, French Guiana; ♂; Amer. Mus. Nat. Hist. (Rothschild Coll.).

The discovery of the above synonymy was made by Dr. Hellmayr who wrote me his suspicions early in 1937 with a request to examine the type of *rothschildi* in comparison with certain examples of *zosterops*. My findings confirmed his belief although the discovery has not yet found its way into print.

I do not believe, however, that the species is entitled to generic separation from *Euscarthmornis*. The principal character of "*Idioptilon*" is to be found in the shortened inner primaries and outer secondaries contrasted with the lengthened inner secondaries, but this condition is only an extreme development of the double-rounded wing found in various species of *Euscarthmornis*. In *E. margaritaceiventris* and *E. duidae*, the longest secondaries are nearly, or quite, as long in proportion to the longest primaries as they are in *zosterops* and the inner primaries and outer secondaries are shorter than the longest feathers in each series though not so short as in *zosterops*. In *E. orbitatus*, the relative lengths of the shortest and longest feathers of both primary and secondary series are about as in *zosterops* although the outermost primary in this species is longer than the innermost which is not the case in almost

¹ Specimens in Field Museum of Natural History, Chicago.

all of the other species, *E. ruficularis* excepted. The slight fork of the tail of "*Idioptilon*" likewise is not distinctive, being found in some of the other species of *Euscarthmornis*.

Three specimens from northern Perú, south of the middle Marañón, are distinguishable from the type of *rothschildi* and twelve additional skins from French Guiana, Venezuela, northern Brazil, and Colombia sufficiently to deserve recognition as a subspecies which may be known as follows.

***Euscarthmornis zosterops flaviviridis*,
new subspecies**

TYPE from Río Negro, west of Moyobamba, Perú; altitude 2600 feet. No. 234,811, American Museum of Natural History. Adult male collected October 13, 1925, by Harry Watkins; original No. 9655.

DIAGNOSIS.—Allied to *E. z. zosterops* of the Río Negro, Brazil, and other localities north of the Amazon, but with upper surface brighter, more yellowish green; under parts with stronger yellowish flammulations on chest giving a greener, less grayish tinge to the olive of that region.

RANGE.—Known only from Perú south of the middle Marañón River, between the upper Marañón and the Huallaga.

DESCRIPTION OF TYPE.—Upper parts bright Serpentine Green with a grayish tinge on the forehead; lores and narrow eye-ring on the forehead with traces of a blackish upper border on the lores; auriculars, subocular space, and chin ashy gray; throat Pale Greenish Yellow, both chin and throat with rather prominent olive-grayish shaft-stripes; breast with broader shaft-stripes of Vetiver Green, margined with Pale Greenish Yellow; sides pale Krönberg's Green with paler yellowish margins obsolete; belly Primrose Yellow; flanks with indistinct grayish-olive stripes. Remiges blackish brown; primaries exteriorly narrowly margined with Light Hellebore Green; secondaries with outer margins a little broader and much yellower; innermost tertials with broad whitish stripe on outer web, nearly reaching the shaft and with a fine, greenish-yellow external margin; lesser upper wing-coverts like the back; median and greater series with broad tips Chartreuse Yellow, and greater series with outer margins Mignonette Green; under wing-coverts Primrose Yellow; inner margins of remiges narrowly whitish. Tail blackish brown with outer margins the color of the back. Bill (in dried skin) black; feet dark brown. Wing, 55 mm.; tail, 49; exposed culmen, 10; culmen from base, 13; tarsus, 16.

REMARKS.—Female with shorter wing (50 mm.) and tail (42) and with even

brighter, more yellowish coloration; wing-bars broader and brighter yellow.

A male from Pomará is nearly as brightly yellowish on the back and wings as a female topotype, but the under parts are as in the type and the measurements also in agreement. Both wing and tail are more brownish in ground color than those of the type, agreeing with the female, but the feet are paler brown than in either of the others. Although the plumage appears to be fully adult, this specimen may be in a first annual plumage, still retaining some of the characters of immaturity.

There are no earlier records from Perú that appear to have any bearing on the present form.

***Euscarthmornis zosterops griseipectus*
(Snethlage)**

Euscarthmus griseipectus SNETHLAGE, 1907, Orn. Monatsber., XIV, p. 194—Alcobaça, Rio Tocantins, Brazil; ♂.

Euscarthmus leucogaster HELLMAYR, 1914, Novit. Zool., XXI, p. 169—Yahuarmayo, Carabaya, Perú; ♂; Munich Mus.

Idioptilon rothschildi albopectus CARRIKER, 1935, Proc. Acad. Nat. Sci. Phila., LXXXVII, p. 335—Santa Ana, Río Coroico, Bolivia; ♂; Acad. Nat. Sci. Phila.

Two specimens from Teffé belong to this gray-breasted, white-bellied subspecies as does the male from Río Comerciato, Perú, already on record.

This form has been recorded from widely separated localities and may occur in the intermediate areas from which there are no present records. In Perú it appears to be restricted to the southeastern part of the country.

Two specimens of a closely allied species are at hand from the Río Tapajoz, Brazil, but they are so different that their specific alliance to *zosterops* is questionable, aside from the fact that they come from a locality where *griseipectus* might be expected to occur. They may be known as follows.

***Euscarthmornis aenigma*, new species**

TYPE from Caxiricatuba, Río Tapajoz, Brazil. No. 287,053, American Museum of Natural History. Adult male collected May 19, 1931, by Alfonso M. Olalla.

DIAGNOSIS.—Upper parts very like those of *E. striaticollis amazonicus* but under parts duller

and more whitish, less obviously striped with dusky except on chin; size very much smaller; wing-bars strongly marked, whitish; pale edges of remiges prominent only on secondaries and tertials; wing-formula different, like that of *E. zosterops*.

Compared to *E. z. zosterops*, the size is smaller; top of head with more lengthened feathers and with the central dark stripes more pronounced; general dorsal color darker green; lores buffy, not white; auriculars browner; chin more obviously streaked; whole under parts less strongly yellowish; a greater contrast between the outer margins of the primaries and those of the secondaries.

Compared to *E. z. griseipectus* the same differences appear in addition to more yellowish under parts in *aenigma*. Under parts much like those of *Lophotriccus vitiosus*.

RANGE.—Known only from the right bank of the lower Rio Tapajoz, Brazil.

DESCRIPTION OF TYPE.—Top of head dark Roman Green with rather prominent shaft-stripes of dusky brown; back Roman Green. Lores dull buffy, with suggestions of a buffy superciliary stripe, almost obsolete; auriculars tinged with Drab; chin and upper throat whitish with rather prominent dusky shaft-stripes; lower throat, chest, and sides yellowish Olive-Buff with obsolete darker central stripes; belly Marguerite Yellow × Primrose Yellow; flanks darker and with slight indications of still darker striping. Lesser upper wing-coverts Dark Greenish Olive; median and greater series Fuscous-Black with prominent whitish tips, continued basad along the outer margins of the greater series; remiges Fuscous-Black; primaries with outer margins very narrowly and inconspicuously olivaceous; secondaries with outer margins more broadly yellowish green, becoming yellower on inner feathers; tertials with outer margins broader, whitish; under wing-coverts pale yellowish; inner margins of remiges dull whitish; tail dark brownish black with outer margins green like the back. Bill (in dried skin) blackish; feet brown. Wing, 46 mm.; tail, 32.75; exposed culmen, 10; culmen from base, 13; tarsus, 14.

REMARKS.—A second male from the same general region is virtually identical with the type.

In this species, as in *E. zosterops*, the innermost (first) primary is as short as the outermost (10th) and the longest secondaries are equal to at least the 5th primary. It is apparent, therefore, that *aenigma* belongs in the same genus with *zosterops*, whether in *Idioptilon* or *Euscarthmus*. For reasons which I have given under *zosterops*, I prefer not to recognize *Idioptilon* as distinct. I do not believe, however, that *aenigma* can be placed in the same

species with *zosterops*. Until more is known of it, it is best kept specifically intact.

The resemblance on the under parts to *Lophotriccus vitiosus* is interesting but probably not very significant since no close relationship is indicated by other characters such as size of bill, wing-formula, and prominent crest. The lengths of wing and tail are, however, comparatively alike.

I have not seen *E. inornatus* from the upper Rio Negro but the decidedly grayish upper parts described for that species can have little resemblance to the clear dark green of the back in *aenigma*.

SPECIMENS EXAMINED

E. z. zosterops.—

BRAZIL:

Rio Negro, Mt. Curucuryari, 2 ♂, 1 ♀;
Santa Maria, 1 ♀;
Igarapé Cacao Pereira, 1 ♂;
Rio Jamundá, Faro, 1 ♂.

VENEZUELA:

Mt. Duida, Savana Grande, 2 ♂;
Valle de los Monos, 1 ♂, 1 ♀;
Río Orinoco, mouth of Río Ocamo, 1 ♂.

FRENCH GUIANA:

Ipousin, 1 ♂ (type of *rothschildi*);
Tamanoir, 1 "♀" [= ♂].

COLOMBIA:

Florencia, 2 ♂.

E. z. griseipectus.—

BRAZIL:

Teffé, 2 ♂.

PERÚ:

Río Comerciato, 1 ♂¹.

E. z. flaviviridis.—

PERÚ:

Río Negro, west of Moyobamba, 1 ♂ (type),
1 ♀;
Pomará, 1 ♂.

E. aenigma.—

BRAZIL:

Rio Tapajoz, Caxiricatuba, 1 ♂ (type);
Aramanay, 1 ♂.

Euscarthmornis rufigularis (Cabanis)

Euscarthmus rufigularis CABANIS, 1873, Jour. für Orn., XXI, p. 67.—Monterico, Perú; ♂, ♀ cotypes formerly in Warsaw Mus., now lost.

A male of this interesting species was collected at La Pampa, southeastern Perú, by Harry Watkins on November 28, 1916, the third known example. A fourth was obtained by M. A. Carriker at San Juan de Perené on January 4, 1930, and is now in Philadelphia.

¹ Specimen in U. S. National Museum, Washington, D. C.

The affinities of this bird are doubtful and there appears to be no other species to which it is very closely related.

Euscarthmornis granadensis pyrrhops
(Cabanis)

Euscarthmus pyrrhops CABANIS, 1874, Jour. für Orn., XX, p. 98—Central Perú [= Maraynioc and Tambopata]; Berlin Mus.

Euscarthmus ocularis SALVIN, 1876, Ibis, p. 493—"Puna Island" (errore) and San Lucas, Ecuador; cotypes in British Mus.

La Lejia, 2 ♂, 1 (?); Lomo Santo, 1 ♂; San Pedro, 2 ♂; Levanto, 1 ♂; Chachapoyas, 1 ♂, 1 (?); Leimebamba, 1 ♀.

I have seen no topotypes of *pyrrhops* but follow previous authors in placing *ocularis* as a synonym of this form. North-Peruvian birds are inseparable from south-Ecuadorian specimens and hence should belong also to *pyrrhops*. The series recorded here helps to close the gap in the known distribution of this form but still leaves a hiatus between the Maraynioc and Chachapoyas regions.

Records are from Maraynioc, Tambopata, Idma, Culumachay, and Tamia-pampa.

Euscarthmornis granadensis caesius
Carriker

Euscarthmornis granadensis caesius CARRIKER, 1932 (Jan. 21), Proc. Acad. Nat. Sci. Phila., LXXXIII, p. 460—Santo Domingo, southeast-ern Perú; ♂; Acad. Nat. Sci. Phila.

Known only from the type and presumably restricted to the extreme south-eastern part of Perú. It would appear to resemble typical *granadensis* more than the intervening *pyrrhops*.

Euscarthmornis margaritaceiventer
rufipes (Tschudi)

E(uscarthmus) rufipes TSCHUDI, 1844 (May), Arch. Naturg., X (1), p. 273—Perú; I suggest La Merced as restricted type locality; Mus. Neuchâtel.

The five Peruvian skins of this species at hand are distinctly more yellowish on the flanks and crissum than a series of thirty-eight skins of *margaritaceiventer* from eastern Bolivia, Brazil, Paraguay, and Argentina, although one skin from São Lorenzo, Matto Grosso, Brazil, approaches fairly closely. The back of the Peruvian

birds is very slightly brighter greenish than in most of the series of *margaritaceiventer* but this distinction is not very positive and often not discernible. Also, the top of the head shows a little more olivaceous tinge, especially posteriorly, than in the typical form. The distinctions appear to be quite sufficient to warrant the retention of the name *rufipes* for the Peruvian birds. A specimen from Trinidad, Río Mamoré, Bolivia, agrees well enough with the Peruvian specimens to be placed in the same form.

Peruvian records are from San Ramón and Maranura as well as from the three localities from which material has been examined in the present connection.

Argentine and Brazilian (Matto Grosso, Goyaz, and São Paulo) specimens at hand are brighter green on the back, on average, than the four east-Bolivian specimens before me, but the distinction is not positive and is overcome by the individual variation of some of the Argentine birds. Paraguayan specimens show both extremes. It appears unlikely, therefore, that "*pelzelni*" of Cuyabá, Matto Grosso, deserves re-instatement for a form perhaps slightly brighter dorsally than true *margaritaceiventer*. A larger series should be examined to determine this point. The darker and grayer back of the east-Bolivian skins at hand emphasizes the distinction of *rufipes*.

The present species is one in which there is a decided sexual difference in the lengths of wing and tail.

SPECIMENS EXAMINED

E. m. margaritaceiventer.—

BOLIVIA:

Santa Cruz, Río Grande, 1 ♂;
Chilon, 1 ♂, 2 ♀.

PARAGUAY:

Río Negro, 1 ♀;
Sapucay, 1 ♂;
Fort Wheeler, 1 ♂, 2 ♀;
Taraquary, 1 (?);
Puerto Pinasco, 1 ♀.

ARGENTINA:

Tucumán, Tapia, 1 ♀;
Tucumán, 2 ♂;
Prov. Tucumán, 1 (?);
Tafi Trail, 1 (?);
Jujuy, Perico, 1 ♀;
Santo Domingo, 1 ♂;

Salta, Rio Seco, 1 ♂;
 Lerma Valley, 1 (?);
 Embarcación, 2 ♂, 1 ♀;
 Santa Fé (?), Ocampo, 1 ♀;
 San Vicente, 1 ♀.

BRAZIL:

Goyaz, Rio Thesouras, 3 ♂;
 São Paulo, Itapura, 1 ♂;
 Matto Grosso, Descalvados, 1 ♀;
 Palmiras, 1 ♂;
 Urucum, 1 ♂, 2 ♀;
 Chapada, 1 (?);
 São Lorenzo River, 1 ♂.

E. m. rufipes.—

PERÚ:

La Merced, 2 ♂;
 Perené, 1 ♂;
 Urubamba Valley, Santa Ana, 1 ♂, 1 ♀.

BOLIVIA:

Río Mamoré, Trinidad, 1 (?).

E. m. wuchereri.—

BRAZIL:

Piauí, Parnagua, 1 ♂, 1 ♀;
 Maranhão, Miritiba, 1 ♀.

***Snethlagea minor minor* (Snethlage)**

Euscarthmus zosterops minor SNETHLAGE, 1907, Orn. Monatsber., XV, p. 193—Arumathæa, Rio Tocantins, Brazil; Mus. Goeldi, Pará.

Comparative studies of the present species have led to certain conclusions that may be placed on record here although the genus has not been found in Perú.

There are at hand forty-one skins of this species from various localities south of the Amazon, comprising twenty-nine sexed as males, seven sexed as females, and five of undetermined sex. With two exceptions, all of the males have the wing, 46–52 mm. and the tail, 36–41 while the females measure, wing, 43–46.25 and tail, 30–35. On this basis, three of the undetermined specimens agree with the males and two with the females. One so-called female shows the wing, 49 and the tail, 37.25 while one so-called male has the wing, 43 and the tail, 31.5, both probably with sex erroneously determined. The same sexual difference of size is found in various species of *Euscarthmornis*.

In addition to the smaller size of the females, the examples of that sex are brighter in color than the males, with more prominent and yellower wing-bars, more yellowish-green back, and stronger yellow under parts. These differences are those

on which Todd based his *Snethlagea minima* (1925, Proc. Biol. Soc. Wash., XXXVIII, p. 94); the type was from the Rio Tapajoz (said to be a male but probably a wrongly sexed female), but other specimens were recorded from the entire range of *minor*. If there were no other factors involved, *minima* would fall as a synonym of *minor*.

In 1937, H. Snethlage described *Snethlagea minor snethlageae* (Orn. Monatsber., XLV, p. 174) from the Tapajoz, ostensibly a form of the same dimensions as *minor* but somewhat yellower on the under parts than Tocantins specimens. Examination of the series now at hand shows that Tocantins males are slightly grayer on the chest and whiter on the belly than Tapajoz and Rio Madeira (right bank) specimens, with Xingú examples intermediate, averaging slightly nearer the typical form. Females from the two regions are not so different although the Tapajoz and Madeira (right bank) birds average a little stronger yellow beneath than the single Tocantins bird of that sex at hand.

Consequently, it appears to be just possible to recognize two forms in the region in question although the distinctions may disappear in a larger series from the Tocantins. Since the type localities of both *minima* and *snethlageae* are the left bank of the Tapajoz and *minima* is the earlier name, that name may be applied to the birds from the Tapajoz to the right bank of the Madeira.

S. m. pallens Todd (1925, Proc. Biol. Soc. Wash., XXXVIII, p. 94—Nova Olinda, Rio Purús, Brazil) has the male very like typical *minor* on the under parts, with grayish chest and whitish belly, but the dorsal surface is grayer with a still darker cap, the wings and tail are more blackish, and the wing-bars are stronger. The female is smaller and yellower, not easily distinguished from the same sex of *minor* and *minima*. I have only a single specimen from near the original locality for this form but four examples from the lower Rio Negro (right bank) are in excellent agreement, indicating the extension of the range of this form across the Amazon.

SPECIMENS EXAMINED

S. m. minor.—

BRAZIL:

- Rio Tocantins, Cametá, 2 ♂;
 Baião, 2 ♂, 1 ♀;
 Rio Xingú, Tapará, 4 ♂, 1 ♀;
 Porto de Moz, 3 ♂, 1 ♀, 1 "♂" [= ♀].

S. m. minima.—

BRAZIL:

- Rio Tapajoz, Igarapé Brabo, 5 ♂;
 Limoál, 1 ♂;
 Igarapé Amorin, 4 ♂;
 Rio Amazonas, Villa Bella Imperatriz, 2 ♂,
 1 ♀;
 Rio Madeira, Igarapé Auará, 4 ♂, 1 ♀;
 Borba, 1 ♂, 1 ♀;
 Alliança, 1 ♀;
 Calamá, 2 ♂;
 Porto Velho, 1 ♀;
 Matto Grosso, Utiarity, 1 "♀" [= ♂].

S. m. pallens.—

BRAZIL:

- Rio Madeira, Rosarinho, 1 ♂;
 Rio Negro, Igarapé Cacao Pereira, 3 ♂,
 1 ♀;
 Muirapinima, 2 ♂, 1 ♀, 1 (?).

Poecilotriccus ruficeps peruvianus

Chapman

Poecilotriccus ruficeps peruvianus CHAPMAN,
 1924 (June 20), Amer. Mus. Novitates, No. 118,
 p. 5—Chaupe, northern Perú; ♂; Amer. Mus.
 Nat. Hist.

The two Chaupe specimens, type and paratype, remain the only recorded examples of this well-marked form.

I find some difficulty in separating *P. r. rufigenis* of northwestern Ecuador and southwestern Colombia from typical *ruficeps* of the eastern part of these two countries. I have only two west-Ecuadorian birds, both somewhat worn but both with the top of the head not darker, as described by various authors, but decidedly paler than the same area in *ruficeps*. The back is of the same color in both groups but the belly of *ruficeps* is somewhat deeper in tone. The auriculars of the two west-Ecuadorian skins are more whitish, less rufescent, than in the typical form but the amount of rufous on the gular area is about the same as in some of the eastern birds, most of which, however, have the throat whiter. The wing and tail of the west-Ecuadorian specimens are shorter than in any of the series of *ruficeps*.

Three south-west-Colombian specimens probably belong to *rufigenis* although they

are decidedly less well marked than the west-Ecuadorian specimens. One has the cap slightly paler than eastern birds; the other two are no different. One has the auriculars slightly paler; the other two do not. The throat is not at all strongly cinnamomeous in any of the three skins but the belly is relatively light in color, agreeing better with the west-Ecuadorian examples.

A series of west-Ecuadorian specimens is needed for determination of the most stable characters of *rufigenis*.

SPECIMENS EXAMINED

P. r. ruficeps.—

COLOMBIA:

- La Palma, 1 (?);
 "Bogotá," 2 (?).

ECUADOR:

- Baeza, 4 ♂, 3 ♀;
 upper Sumaco, 3 ♂, 1 ♀;
 "Ecuador," 1 (?).

P. r. melanomystax.—

COLOMBIA:

- Salento, 1 ♂, 1 ♀;
 El Eden, 1 ♂, 2 ♀;
 Río Toché, 1 (?);
 Santa Elena, 1 ♀;
 above Ibagüe, 1 ♀;
 "Bogotá," 1 (?).

P. r. rufigenis.—

ECUADOR:

- Pallatanga, 2 ♂.

COLOMBIA:

- Cerro Munchique, 1 ♂, 1 ♀, 1 (?).

P. r. peruvianus.—

PERÚ:

- Chaupe, 2 ♂ (incl. type).

Lophotriccus pileatus hypochlorus

Berlepsch and Stolzmann

Lophotriccus squamaecristatus hypochlorus BERLEPSCH AND STOLZMANN, 1906 (September), Ornith., XIII, p. 85—Idma, above Santa Ana, Perú; ♂; Warsaw Mus.

This brightly colored form ranges from the Urubamba Valley to the upper affluents of the Madre de Dios in southeastern Perú. Records are from Huaynapata and San Gaban.

Lophotriccus pileatus pileatus (Tschudi)

E(uscarthmus) pileatus TSCHUDI, 1844, Arch. Naturg., X (1), p. 273—Perú; Valley of Vitoc suggested by Hellmayr, 1927; Mus. Neuchâtel.
Lophotriccus pileatus griseipectus CARRIKER, 1933 (March 24), Proc. Acad. Nat. Sci. Phila., LXXXV, p. 25—Río Jelashte, Perú; ♂; Acad. Nat. Sci. Phila.

The present form is characterized by having the belly more extensively whitish than the other known forms although there is much individual variation here as in other members of the species. Some examples even of the usually yellow-bellied Central American form, *luteiventris*, have the belly as whitish as the average of *squamaecrista* or the yellower extreme of *pileatus*, and some *squamaecrista* are as whitish as the average *pileatus*. Most of the characters of the various forms are quite variable and distinctive only in series. Size appears to be of little value as a taxonomic criterion and large examples of the various forms are very near each other in dimensions. In the series of males of the various forms examined, *luteiventris* has a wing of 49–53 mm.; *squamaecrista*, 47.5–55.5; *pileatus*, 48–54; and *hypochlorus*, 49.5–53.5. Colombian specimens appear to reach a slightly larger extreme than west-Ecuadorian birds of the same form and north-Peruvian skins average slightly larger than birds from the central part of the country, but there is too much overlapping to make this feature of taxonomic value.

Records are from Garita del Sol, Ropayabamba, Eneñas, Huambo, and Río Jelashte.

There is a single adult specimen at hand from the páramo at the head of the Chichirivichi Valley, northern Venezuela, that cannot be identified satisfactorily. It is as yellow on the under parts as *luteiventris* and is matched in this respect by only a single immature skin from Bogotá, Colombia. Owing to the poor condition of part of the plumage in this specimen, conclusions as to its affinities are best left in abeyance. A good series from this region would be highly desirable.

SPECIMENS EXAMINED

L. p. luteiventris.—

COSTA RICA: (Bonilla, Aquinares, Miravalles, Verablanca, Navarro, Santa Maria de Dota), 11 ♂, 5 ♀.

PANAMÁ: (Santa Fé, Chitrá, Río Calovevora, Boquete, Tacarcuna), 25 ♂, 14 ♀.

L. p. squamaecrista.—

COLOMBIA: (Primavera, east of Palmira, Las Lomitas, Ricaurte, San Antonio, La Candela, Barbacoas, La Frijolera, Buena Vista, La Tigrera, "Bogotá"), 17 ♂, 6 ♀, 2 (?).

ECUADOR: (La Puente, Cebollal, La Chonta, Chone, Río Jubones, Naranjo, Cocó, Chongon Hills, Mindo, Pallatanga, Cerro Manglar Alto, Coast of Manaví, Manaví, Bucay, Chimbo, Alamor, Río de Oro, Zaruma, Salvas, Punta Santa Ana, Las Piñas, Pedregal, San Nicolas, Guala, Santa Rosa, Esmeraldas, Mapoto, Intag, Pambilar, Cuyaque el Destino), 41 ♂, 28 ♀, 8 (?).

L. p. pileatus.—

ECUADOR:

lower Sumaco, 2 ♂, 1 ♀;
below San José, 2 ♂, 4 ♀.

PERÚ:

Chaupe, 3 ♂, 3 ♀.
Uchco, 1 ♂, 1 ♀;
Guayabamba, 2 ♂;
Chinchao, 2 ♂¹, 2 ♀¹;
Huachipa, 1 ♂¹.

L. p. hypochlorus.—

PERÚ:

Idma, 3 ♂;
Río San Miguel, 1 ♀²;
Inca Mine, 2 ♂;
Santo Domingo, 1 ♂, 1 ♀;
La Pampa, 1 ♂;
Río Tavera, 1 ♀;
Río Inambari, 2 ♂.

L. p. subsp.?.—

VENEZUELA:

Páramo at head of Chichirivichi Valley, 1 ♀.

Lophotriccus vitiosus vitiosus (Bangs and Penard)

Cometornis vitiosus BANGS AND PENARD, 1921 (January), Bull. Mus. Comp. Zool., LXIV, p. 373—Perú—I suggest Sarayacu, Río Ucayali; Mus. Comp. Zool.

As pointed out long ago by Taczanowski (1884, Orn. Pérou, II, p. 229) and more recently by Hellmayr (1927, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 5, p. 332, footnote b), specimens from south of the Amazon in Perú have less strongly yellowish bellies than those from north of the river in eastern Ecuador and the Guianas. Taczanowski also calls attention to the darker and clearer gray edges on the feathers of the crest in Guianan specimens. Forty-nine specimens at hand from the different parts of the range amply confirm these characters and suggest the desirability of recognizing two additional subspecies. These may be characterized as follows.

¹ Specimens in Field Museum of Natural History, Chicago.

² Specimen in the U. S. National Museum, Washington, D. C.

***Lophotriccus vitosus affinis*,
new subspecies**

TYPE from Río Suno, above Avila, eastern Ecuador. No. 179,508, American Museum of Natural History. Adult male collected February 13, 1923, by Carlos Olalla and sons.

DIAGNOSIS.—Similar to *L. v. vitosus* of northeastern Perú, south of the Amazon, but with the belly distinctly more yellowish.

RANGE.—Tropical Zone of eastern Ecuador, southeastern Colombia, and northeastern Perú, north of the Amazon, ranging northeastward to the Rio Uaupés in the valley of the upper Rio Negro, Brazil.

DESCRIPTION OF TYPE.—Forehead Deep Olive with some traces of dusky centers on the feathers, strongest posteriorly; crown and occiput occupied by a long, emarginate, flattened crest of black feathers, the anterior ones margined with the color of the forehead and the remainder with moderately wide margins of Smoke Gray; longest (lateral) crest-feathers 16 mm. in length; hind neck and back dull Roman Green. Lores a little paler than the forehead with faint indications of paler tips; malar region and auriculars slightly tinged with brownish; chin whitish and throat pale yellowish, both with rather prominent dusky stripes; sides dull Yellowish Olive with a tinge of this color spreading across the breast which is striped with dusky like the throat but less sharply; belly light Primrose Yellow, deeper adjacent to the breast; flanks yellowish with faint traces of obscure stripes; under tail-coverts paler yellowish. Wings dusky brown; primaries and outer secondaries narrowly margined externally with Yellowish Olive; inner secondaries with margins yellower and broader; inner tertial with a broad white stripe on outer web bordered by a narrow greenish edge on the outer margin of the feather; lesser upper wing-coverts like the back; median and greater series blackish with broad tips of light Primrose Yellow continued in a more greenish tone basad along the outer margins of the greater series; under wing-coverts Marguerite Yellow; inner margins of remiges narrowly yellowish white. Tail sooty brown with outer margins Yellowish Olive. Bill (in dried skin) blackish with the base of the mandible and a fine tip on the maxilla whitish; feet pale brown. Wing, 51 mm.; tail, 37; exposed culmen, 12.2; culmen from base, 15; tarsus, 16.

REMARKS.—Females much like the males but averaging smaller (wing, 43.1–48.5 as against 46.5–52; tail, 28–36 as against 34.5–38.5); under parts averaging yellower; crest shorter and with the margins of the elongated feathers showing an olivaceous or even buffy tinge.

Several of the specimens from Perú north of the Amazon are not as well marked as those from farther north in eastern

Ecuador and elsewhere, but they are yellower beneath than the average of typical *vitiosus* and two of them are fairly well marked. These birds, therefore, may be placed with the new form.

Rio Uaupés birds definitely belong to this new form in distinction from *vitiosus vitiosus* or the Guianan form described hereunder.

***Lophotriccus vitosus guianensis*,
new subspecies**

TYPE from Ipousin, Approuague River, French Guiana. No. 498,769, American Museum of Natural History. Adult male collected December 26, 1902, by George K. Cherrie; original No. 12,836.

DIAGNOSIS.—Similar to *L. t. vitosus* of northeastern Perú, south of the Amazon, but with under parts more strongly yellowish. Differs from both *vitiosus* and *affinis* by having the margins of the crest-feathers distinctly darker and clearer gray.

RANGE.—French and Dutch Guianas and apparently also British Guiana. Records from Obidos and Faro may belong here but need re-examination as detailed below.

DESCRIPTION OF TYPE.—Details in general as described for the type of *L. v. affinis* except as follows. Chin whitish with broad, grayish-brown stripes; throat and breast Sea-foam Yellow, only indistinctly striped with faint grayish shaft-marks, broader on the breast; back Yellowish Olive; margins of crest-feathers Neutral Gray; longest (lateral) feathers of crest 12.5 mm. in length.

REMARKS.—A single specimen from Wismar, Demerara River, British Guiana, has the crest margined with dark gray like the French and Dutch Guianan skins but the under parts are not so strongly yellowish as in the other specimens, though more yellowish than in average *vitiosus*, and the gular and pectoral stripes are relatively strong as in some examples of *affinis*. The dark edges of the crest-feathers indicate affinity to *guianensis* to which the specimen may be referred for the present.

I question Madame Snethlage's records of this species from Faro and Obidos largely on the basis of one of her Faro skins now before me, labeled as "*Lophotriccus spicifer*" but actually an unusual example of *Colaptes galeatus* with some suggestion of quite narrow, pale wing-bars. Our Faro collections contain other specimens of *Colaptes* but none of the present species

of *Lophotriccus*. Examination of any specimens of *L. vitiosus* from the Jamundá and the Jarý should be made to determine their possible assignment to one or another of the several forms here recognized.

It is impossible to appraise the taxonomic value of the shorter crest in the type of *guianensis* as compared with that of *affinis* and *vitiosus*. Some specimens of the last two forms, possibly younger than the longest-crested examples, though not strictly juvenal, have the crest no longer than the type of *guianensis*. The average figures, however, indicate a probable relative brevity of crest in the Guianan form.

Taczanowski (*loc. cit.*) notes that one of his birds from Yurimaguas had the edges of the crest-feathers somewhat more grayish than the others, approaching the birds from Cayenne. Hellmayr (1927, Field Mus. Nat. Hist. Publ., Zool. Ser., XIII, pt. 5, p. 332) found one Yurimaguas bird approaching Guianan examples in respect to the yellower under surface. Other examples from this locality seen by both observers are left without other comment and probably were of the normal coloration of true *vitiosus* to which I tentatively refer the Yurimaguas records.

Other records from Perú which may be assigned to *vitiosus* are from Shanusi, Chamucuros, Jeberos, and the Río Ucayali.

A record from Iquitos and two from the Río Tigre should go with the Puerto Indiana and Río Mázan birds under *affinis*.

I have not seen *Lophotriccus eulophotes* Todd (1925, Proc. Biol. Soc. Wash., XXXVIII, p. 93—Hyutanahan, Río Purús, Brazil), placed by Hellmayr as a subspecies of *vitiosus*.

SPECIMENS EXAMINED

L. v. vitiosus.—

PERÚ:

- Río Ucayali, Santa Rosa, 10 ♂, 3 ♀;
- Lagarto, 8 ♂, 3 ♀;
- Río Pichis, Puerto Bermúdez, 1 ♀.¹

L. v. affinis.—

ECUADOR:

- Río Suno, above Avila, 1 ♂ (type);
- lower Río Suno, 3 ♂, 1 ♀;
- below San José, 1 ♂;

Cerro Galeras, 2 ♀.

PERÚ:

- Puerto Indiana, 1 ♂, 3 ♀;
- Apayacu, 1 ♂;
- Río Mázan, 2 ♂, 1 ♀.

COLOMBIA:

- La Morelia, 1 ♀.

BRAZIL:

- Río Uaupés, Tahuapunto, 1 ♂, 3 ♀.

L. v. guianensis.—

FRENCH GUIANA:

- Ipousin, 1 ♂ (type), 1 ♀.

DUTCH GUIANA:

- Paramaribo, 1 ♀;
- "Interior," 1 ♂.

BRITISH GUIANA:

- Wismar, 1 ♂.

Myiornis albiventris

(Berlepsch and Stolzmann)

Orchilus albiventris BERLEPSCH AND STOLZMANN, 1894, Ibis, p. 389—La Merced, Perú; ♂; Warsaw Mus.

Pozuzo, 1 ♂; Perené, 1 ♀.

Apparently a rare bird in collections. Known specimens from Perú are confined to the type and the two skins now before me. I have seen a specimen in the collection of the Academy of Natural Sciences of Philadelphia collected in the Beni country of northern Bolivia by M. A. Carriker, Jr., which represents the most easterly extension of the known range.

It is probable that this form is no more than a geographic representative of the still more eastern *M. auricularis* since all of its characters are but modifications of the colors and pattern of the *auricularis* group. Until more is known of the individual variations of *albiventris* I prefer to keep it specifically distinct.

Myiornis ecaudatus ecaudatus

(D'Orbigny and Lafresnaye)

T(odirostrum) ecaudatum D'ORBIGNY AND LAFRESNAYE, 1837, Mag. Zool., VII, Cl. 2, Syn. Av., 1, p. 47—Yuracares, Bolivia; Paris Mus.

There is just enough difference observable between birds from Bolivia and Perú and those from British Guiana, Venezuela, and Trinidad to warrant the recognition of Chubb's *miserabilis*, described from British Guiana. Specimens from other localities along the south bank of the Amazon, eastward from Perú, agree well enough with the Bolivian birds to be placed in the typical form but the northern skins have several

¹ Specimen in Field Museum of Natural History, Chicago.

points of distinction. The back is darker and duller, less yellowish, green; the top of the head averages darker gray with a greater extension of this shading over the hind neck; the auriculars are darker and grayer; the sides of the chest are more grayish; the feet are distinctly darker in most cases.

In typical *ecaudatus*, the back is yellowish green, the gray of the top of the head merges into the green of the back in the nuchal region; the auriculars are paler; the sides of the chest are greenish yellow; the feet are pale flesh-color.

I place *atricapillus* as a subspecies of *ecaudatus* although intergradation is not established. Its black, instead of gray, cap is the most distinctive feature since the broad white loreal patch is approached in some specimens of *ecaudatus* and the yellow belly is variable. A northwest-Ecuadorian skin has the belly hardly more yellow than some examples of *ecaudatus*; several west-Colombian birds are a little yellower and a Panamanian specimen, the nearest topotypical bird in the series before me, is the yellowest of all. Possibly the Colombian and Ecuadorian specimens represent an undescribed form.

I believe that the short tail of "*Perisotriccus*" is not a sufficient character in itself to warrant the recognition of this group as a genus distinct from *Myiornis* which also has a short tail in comparison with various nearby genera though not so short as in *ecaudatus*. Accordingly I have placed this species in *Myiornis*.

Peruvian records of *ecaudatus* are from Yahuar Mayo and "Juanfué" [= Juanjuí].

SPECIMENS EXAMINED

M. e. ecaudatus.—

BOLIVIA:

- Todos Santos, 1 ♂, 1 ♀;
- Mission San Antonio, 2 ♀.

PERÚ:

- Río Távora, 1 ♂;
- Río Cosireni, 1 (?);
- Pomará, 1 ♂.

BRAZIL:

- Teffé, 1 ♂, 2 ♀;
- Rio Madeira, Rosarinho, 1 ♂;
- Calamá, 1 ♂, 1 ♀;
- Rio Preto, Santa Isabel, 1 ♀;
- Villa Bella Imperatriz, 1 ♂;
- Rio Tapajoz, Boim, 2 ♂;

- Caxiricatuba, 2 ♂, 2 ♀;
- Igarapé Brabo, 2 ♂, 2 ♀;
- Tauary, 1 ♂;
- Itaituba, 1 ♂;
- Rio Xingú, Villarinho do Monte, 1 ♂, 1 (?).

M. e. miserabilis.—

BRITISH GUIANA:

- Potaro Landing, 1 ♂, 1 (?);
- Tumatumari, 2 ♀.

TRINIDAD:

- Savana Grande, 1 ♂, 1 ♀.

VENEZUELA:

- Munduapo, 1 ♂;
- Suapure, 1 ♂;
- Mt. Duida, Campamento del Medio, 1 ♂.

M. e. atricapillus.—

PANAMÁ:

- Río Calovevora, 1 ♂.

COLOMBIA:

- Alto Bonito, 1 ♂;
- San José, Cauca, 1 ♂;
- Nóvita, 1 ♂;
- Barbacoas, 1 ♂.

ECUADOR:

- San Javier, 1 ♂.

Pseudotriccus simplex (Berlepsch)

Caenotriccus simplex BERLEPSCH, 1901 (January), Jour. für Orn., XLIX, p. 88—Sandillani, Bolivia; Frankfort Mus.

Ochthoeca keaysi CHAPMAN, 1901 (August), Bull. Amer. Mus. Nat. Hist., XIV, p. 227—Inca Mine, Perú; ♀; Amer. Mus. Nat. Hist.

The type of "*Ochthoeca keaysi*" and a second female from Roquefaldá, Bolivia, are the only specimens at hand of this interesting form. The Bolivian specimen, apparently going into the first annual plumage, is a little smaller than the Peruvian bird, a little paler on the throat, and somewhat deeper yellow on the belly, within the degree of individual variation shown by a series of the *P. pelzelni* group though at a different place on the scale of colors. Any separation of "*keaysi*" from *simplex* appears unlikely.

This form shows some resemblance to *P. ruficeps* in the rufescent tinge on the anterior part of the head but in other respects it has much similarity to the *pelzelni* group. The three species are certainly very closely related. I am unable to find any generic distinction for *ruficeps* sufficient to justify the recognition of "*Caenotriccus*," erected for it. Even the supposedly smaller bill of *ruficeps* does not hold true, for the Bolivian female of *simplex* and several specimens of *p. pelzelni*

have bills no larger than the largest of *ruficeps*.

There are no Peruvian records of this species other than that of the type of "*keaysi*."

***Pseudotriccus ruficeps* (Lafresnaye)**

Muscicapa (Todiostrostrum) ruficeps LAFRESNAYE, 1843, Rev. Zool., VI, p. 291—"Colombie," = Bogotá.

C(aenotriccus) ruficeps haplopteryx BERLEPSCH AND STOLZMANN, 1896, P. Z. S. London, p. 361, in text—Sarnapaycha (Maraynioc), Perú; ♂; Warsaw Mus.

I have seen no Peruvian specimens but follow Chapman and Hellmayr in considering "*haplopteryx*" as a synonym of *ruficeps*. Other than the type of "*haplopteryx*," the only Peruvian records are from Pumamarca and Cedrobamba.

***Hemitriccus flammulatus* Berlepsch**

Hemitriccus flammulatus BERLEPSCH, 1901, Jour. für Orn., XLIX, p. 87—San Mateo, Yun-

gas of Cochabamba, Bolivia; ♂; Frankfort Mus.

Euscarthmus olivascens TODD, 1915, Proc. Biol. Soc. Wash., XXVIII, p. 169—Río Surutú, Bolivia; ♂; Carnegie Mus.

The Academy of Natural Sciences of Philadelphia possesses a male of this species collected by M. A. Carriker, Jr., at Huacamayo, Sandia, southeastern Perú, the first evidence of the occurrence of the species outside of Bolivia.

The much wider bill, average shorter rictal bristles, and somewhat different arrangement of the pale gular area, together with some lesser differences, make me hesitate to place this form under *H. diops* as a subspecies, at least until a greater amount of similarity can be demonstrated than in the material at hand. For the present, therefore, I retain it as a distinct species.

CORRIGENDA

I find that the catalogue number of the type specimen of *Tolmomyias sulphurescens insignis* (Zimmer, 1939, Amer. Mus. Novit., No. 1045, p. 5) was omitted from the original description. Although there are two examples at hand with the sex and data specified, the specimen which was selected as type and labeled as such in advance of the publication of the name is No. 282,401, American Museum of Natural History.

Mr. James L. Peters has kindly called to

my attention a more serious error in an earlier paper in which I made use of a pre-occupied name for a new form of *Ochthoeca*. Since I discussed the earlier form, though of a different species, in the same paper, my error is inexcusable. The necessary correction is as follows.

***Ochthoeca leucophrys* dissors, new name**

For *Ochthoeca leucophrys cajamarcae* ZIMMER, 1937, Amer. Mus. Novit., No. 930, p. 11 (not *Ochthoeca diadema cajamarcae* CARRIKER, 1934).

