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DESCRIPTIONS OF NEW GENERA, SPECIES AND SUB-  
SPECIES OF BIRDS FROM PANAMA,  
COLOMBIA AND ECUADOR

BY

E. W. NELSON



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DESCRIPTIONS OF NEW GENERA, SPECIES AND SUB-  
SPECIES OF BIRDS FROM PANAMA, COLOMBIA AND  
ECUADOR<sup>1</sup>

By E. W. NELSON

The first of January, 1912, E. A. Goldman, of the Biological Survey, Department of Agriculture, was again detailed on the Smithsonian Biological Survey of the Canal Zone. He returned to Panama in January and remained there until the last of June passing most of this period in collecting birds and mammals on the slopes of Mount Pirri on the Pacific side of eastern Panama, near the Colombian border. Mount Pirri is the highest point (with an altitude of over 5,200 feet) of a rather narrow and isolated mountain ridge lying southeast of San Miguel Bay and on the southwest side of the Tuyra Valley. The extreme headwaters of the Tuyra River rise on its slopes. The ridge is connected southerly with the mountain divide between the valleys of the Tuyra in Panama and of the Truando River in Colombia. Mount Pirri is heavily forested and although on the southern, or Pacific, side of Panama it receives the benefit of moist air currents from the Caribbean so its summit is shrouded in fog most of the year while it has an extremely heavy rainfall.

Previous to Goldman's work no zoölogical collector appears to have visited this interesting mountain. Work was done from its basal lowlands to the summit and many birds and mammals not before known from Panama were taken, a number of which are new to science. Many species from the South American fauna appear to here reach their northern limit and are unknown in the Canal Zone or its adjacent mountains, only about 150 miles away in a direct line by land. In the present paper three apparently new genera and twenty-four new species and subspecies of birds are described from the slopes of Mount Pirri and its bordering lowlands. In addition two new birds from Colombia and Ecuador and one from western Panama are included. The new mammals have been described by Goldman,<sup>2</sup> and later a faunal paper will probably be published covering the total results obtained in this district.

<sup>1</sup> This paper is the sixteenth dealing with the results of the Smithsonian Biological Survey of the Panama Canal Zone.

<sup>2</sup> Smithsonian Misc. Coll., Vol. 60, No. 2, 1912, p. 18.



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**GEOTRYGON GOLDMANI, sp. nov.**

Goldman's Wood Dove

*Type*.—No. 232545, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,000 feet altitude), head of Rio Limon, eastern Panama; collected March 5, 1912, by E. A. Goldman (collector's number 15293).

*Distribution*.—Known from type locality only.

*General characters*.—Apparently most closely related to *G. bourcierii* but entire top of head and nape rich rufous.

*Description of type*.—Forehead cinnamon rufous shading into rich chestnut between eyes and thence into rich reddish chestnut over entire crown and nape; upper side of neck dark olivaceous gray strongly washed with dark vinaceous; interscapular area dark, slightly metallic Indian purple; upper side of rump wings and tail brownish chestnut darker and browner on scapulars; rump and tail, with a slight vinaceous tinge over all; exposed part of primaries and alula dusky gray; sides of head below eyes from base of lower mandible to include ear coverts pinkish buff and bordered from bill back along lower side of cheeks by a strongly marked black line; chin and throat white shading posteriorly into vinaceous gray which covers under part and sides of neck and anterior two-thirds of breast; posterior part of breast pale dingy gray finely maculated with pale buffy; middle of abdomen dingy white; sides of breast, flanks and axillaries dark grayish brown; under tail coverts like posterior part of breast but a little darker; bill black; feet and tarsus (in dried skin) dark red.

*Measurements of type*.—Wing, 144; tail, 87; culmen, 16; tarsus, 44.

*Remarks*.—This species is based on a series of five specimens all of which agree in the rufous crown and nape. It appears to be a forest species of the higher slopes of the Mount Pirri range where it was plentiful.



**CHLORONERPES CHRYSOCHLORUS AUROSUS**, subsp. nov.

Golden Green Woodpecker

*Type*.—No. 232926, adult male, U. S. National Museum, Biological Survey Collection, from Marraganti, in the lowlands 150 miles east of Canal Zone, Panama; collected April 4, 1912, by E. A. Goldman.

*Distribution*.—Known from type locality only.

*General characters*.—In colors and color pattern extremely close to *chrysochlorus* from Brazil but red on head a lighter shade; ear coverts paler olive; stripe from nostrils back along side of head and neck much richer golden, nearly orange yellow; under parts of body barred with deeper and richer ochraceous yellow between dusky bars; rectrices olive green, dusky only along shafts and at tips instead of almost entirely dusky as in *chrysochlorus*; size larger.

*Description*.—Entire top of head and nape bright poppy red, less crimson than in *chrysochlorus*; rest of upper parts including top of wings and upper side of tail, except the dusky brown shafts and tips of feathers, bright olive green; a narrow line on lores, broadening to include eyes, upper half of cheeks and auriculars light olive brown, this area limited posteriorly by downward extension of red of nape which touches upper border of a rich bright golden yellow stripe extending from nares back below cheeks and lower border of auriculars and along sides of neck; malar patch red like crown and continued posteriorly by a broad stripe of olive along sides of head and neck below the golden yellow stripe; chin and throat duller golden buffy than in *chrysochlorus*; rest of under parts narrowly but strongly barred transversely with ochraceous yellow and olive, bars narrowest immediately below yellow throat patch becoming broadest and palest yellow on abdomen and under tail coverts; bend of wing plain buffy yellow, narrowly barred at base of primaries on top with olive and buffy yellow; axillaries deep orange buff; inner webs of secondaries and primaries entirely deep cinnamon buff basally but this color gradually narrowing to a point on inner margin of inner webs, reaching half way to tips of two first primaries and gradually increasing to near tips of inner webs of secondaries (in *chrysochlorus* outside of bend of wing plain yellow; cinnamon of inner webs of primaries and secondaries paler and extending three-fourths or more of length toward tip of primaries); tail in present form olive green like back with dusky shafts and tips to feathers, in *chrysochlorus* tail almost all dusky.



*Measurements of type*.—Wing, 123.5; tail, 69; culmen, 23; tarsus, 20. Measurements of adult male from Chapada, Matto Grosso, Brazil (American Mus. Nat. Hist.): Wing, 117; tail, 71; culmen, 21; tarsus, 20.

*Remarks*.—The present form bears a surprisingly close resemblance to *chrysochlorus* of Brazil but there is a wide gap in the known range of the species southeast of the present type locality. Only a single individual, the type, was seen at Marraganti during Goldman's brief stay there.

**AULACORHAMPHUS CÆRULEIGULARIS COGNATUS, subsp. nov.**

Mount Pirri Toucan

*Type*.—No. 232544, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,000 feet altitude) head of Rio Limon, eastern Panama; collected March 5, 1912, by E. A. Goldman (collector's number 15292).

*Distribution*.—Known from type locality only.

*Subspecific characters*.—Similar to *A. cæruleigularis* but top of bill at base entirely black with no trace of chestnut colored area about nasal openings characteristic of that bird.

*Description*.—Like *cæruleigularis* but black on base of bill extends entirely across in front of nostrils completely replacing the chestnut area in front of nostrils of that form; forehead greenish almost like middle of back; crown and top of neck slightly more olive than forehead but much less olive than in *cæruleigularis* and less strongly contrasted with green of back; blue band from eye to throat along base of mandibles distinctly narrower in present form; size same as in *cæruleigularis*.

*Remarks*.—The present bird is evidently also a close relative of *A. cyanolæmus* from which it differs mainly in the restriction of the black on the upper mandible. These toucans, including *cæruleigularis*, are probably all subspecies of the same bird ranging from Costa Rica to Ecuador. The present subspecies is based on a series of seven specimens.

**MOMOTUS CONEXUS RECONDITUS, subsp. nov.**

Chestnut-bellied Motmot

*Type*.—No. 238084, adult male (?), U. S. National Museum, Biological Survey Collection, from Marraganti, eastern Panama; collected April 5, 1912, by E. A. Goldman (collector's number 15943).



*Distribution*.—Known from Marraganti and Boca de Cupe, eastern Panama.

*Subspecific characters*.—Most like *M. conexus* from the Canal Zone but much darker; back dark olive green with a darker and more chestnut-rufous suffusion; outside of wings darker green; under parts also much darker and more chestnut, especially on abdomen.

*Measurements of type*.—Wing, 123; tail, 230; culmen, 37; tarsus, 28.5.

*Remarks*.—*M. conexus* and the present subspecies are much nearer to *M. subrufescens* than to *lessoni*. In fact it is almost certain that when specimens from intermediate localities are collected they will show that *conexus* and *reconditus* are subspecies of *subrufescens*. The fact that *conexus* from the Canal Zone retains certain distinctions of color pattern characteristic of *subrufescens* with no sign of intergradation toward *lessoni* is a strong indication of the specific distinction of these birds. In *M. lessoni* the black ear patch is narrowly edged above and below by the same color as that on the forehead while in *subrufescens*, *conexus* and *reconditus* this ear patch is bordered above by the same color as that of the forehead and below by a much deeper and richer blue like that of the nape; these three forms also agree in having the abdomen clearer rufous than the neck and breast which are distinctly greenish; in *lessoni* the reverse of this distribution of color exists and the breast is more rufous and less greenish than the abdomen. *M. c. reconditus* is based on two specimens, the type and one other from Boca de Cupe in the same district.

#### ELECTRON PLATYRHYNCHUS SUBOLES, subsp. nov.

Darien Motmot

*Type*.—No. 232536, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 2,000 feet altitude), eastern Panama; collected March 9, 1912, by E. A. Goldman (collector's number 15336).

*Distribution*.—Known from type locality only.

*Subspecific characters*.—Size of *E. p. minor* but bill longer and narrower; rufous on head, neck and breast lighter and more buffy; green on back clearer and brighter than in either *platyrhynchus* or *minor* and upper side of tail bluish; abdomen blue.

*Description of type*.—Top of head and neck rusty cinnamon-rufous paler than in *minor*; under side of neck and fore breast a paler and duller shade of same with an overlying tinge of green;



a thin patch of bluish green on chin; the usual black breast spot; lores and area under and behind eyes black; back nearly grass green; upper tail coverts bluish green; top of wings mainly bluish green but outer borders of primaries distinctly bluish; upper side of tail bright bluish green, varying to cyanine blue on ends of tail in certain lights, the blue on tail much stronger and clearer than in *minor*; a poorly defined margin of bluish grass green about posterior border of rufous on breast changing to cerulean blue with a greenish tinge on abdomen and a greener shade of same on under tail coverts. Bill narrower and longer than in *minor* and black to tip, thus lacking the pale horn colored tip of latter.

*Measurements of type*.—Wing, 116; tail, 177; culmen, 45; tarsus, 17.

*Remarks*.—This subspecies differs strongly from *E. p. minor*, the most striking differences being in its long slender bill, paler colors and the distinctly bluish cast of the top of the wings and tail and the blue abdomen. The present bird agrees with *minor* in size and is thus much smaller than typical *platyrhynchus*. Hartert gives the measurements of a typical specimen of the latter from Paramba, Ecuador, as follows: Wing, 130; tail, 223; culmen, 49; tarsus, 20. The bill of *suboles* is actually as well as proportionately narrower than in either of the forms named above. This form is based on a single specimen.

#### GOETHALSIA,<sup>1</sup> gen. nov.

Apparently nearest *Goldmania*, the three or four middle under tail coverts being shorter than usual and specialized as in that genus, silky white in color and forming a tuft of overlapping or "nested" and strongly decurved stiff plumes about twice as long as in *Goldmania* and more plume-like nearly to base of feathers; other under tail coverts normal and differently colored from middle ones but proportionately smaller than usual; this strong character present in both sexes and in the young as in *Goldmania*; primaries medium width, broader than in *Goldmania*, normal in all conditions (?) and outer primary distinctly longer than next one; tail emarginate, nearly three-fifths the length of wing; bill slightly broadened and ridged at base, terete elsewhere and same length as head; nostrils operculate, feathering of forehead extending out about two-thirds of length of

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<sup>1</sup> Named in honor of Colonel George W. Goethals, head of the Panama Canal Commission, to whom the scientific workers of the Biological Survey of the Canal Zone are deeply indebted for prompt and courteous assistance in prosecuting their work.



nostrils; tarsus bare except near upper end in front. *Color*: Males on head and body mainly plain metallic green above and below except buffy-rufous mask on chin and lores and buffy whitish on posterior abdomen; primaries purplish black; secondaries rufous, dark-tipped as in *Eupherusa*; tail feathers pale rufous buffy with exposed parts of middle feathers dark bronze green and same color on tips of other feathers decreasing proportionately in width to a fine narrow margin on outer feather on each side.

Type of genus *Goethalsia bella*, sp. nov. (monotypic).

**GOETHALSIA BELLA, sp. nov.**

Goethals' Humming-bird

*Type*.—No. 238672, nearly adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 2,000 feet altitude), eastern Panama; collected March 16, 1912, by E. A. Goldman (collector's number 15371).

*Distribution*.—Known from extreme eastern Panama only, Cana (2,000 feet) and Mount Pirri (to 5,000 feet).

*Description of type*.—Top of head dull dark bronze green shading into a brighter bronze green on neck and back and into golden bronze on rump; longer upper tail coverts dark coppery bronze; lores and malar area dark reddish rufous shading into reddish buffy on chin; lower parts, from chin to include front of abdomen, clear bright metallic green; crissum buffy and buffy whitish, except three or four middle under tail coverts which are much longer than other coverts and specialized into satiny white overlapping, rigidly decurved plumes as in *Goldmania* but much longer and broader, or more developed basally; sides of neck and body greenish bronze; posterior flanks reddish buffy; primaries purplish black; secondaries rusty rufous tipped with dark bronzy purplish (similar to pattern of *Eupherusa*); tail mainly rusty buffy but exposed parts of two middle feathers dark bronze green and lateral feathers tipped with proportionately decreasing amounts of same to a narrow edging on tip of outer feather on each side.

*Adult female*.—Similar to male but smaller and under parts of neck and body nearly uniform ochraceous buffy with metallic green feathers confined to sides of breast; less dark bronze green on tail feathers, two outer pairs entirely reddish buffy.

*Measurements of type*.—Wing, 52; tail, 29; culmen, 17.

*Remarks*.—Although the wing characters are different in the present bird from those of *Goldmania* the similarity of the curious



modification of the middle under tail coverts in the two genera, present in both sexes and in the immature plumage appears to indicate a close relationship. Unfortunately the only specimens of the present species are two slightly immature males and an adult female, so it is impossible to determine whether the outer primary of the fully adult male is or is not modified near the tip. Goldman collected the type of this new genus and species at Cana at an altitude of 2,000 feet in March, and during the same month and in May collected two others on Mount Pirri at 4,500 and 5,000 feet altitude.

**ERIOCNEMIS FLOCCUS, sp. nov.**

Wool-tufted Humming-bird

*Type*.—No. 238295, adult male, U. S. National Museum, Biological Survey Collection, from east slope of Mount Pirri (at 5,000 feet altitude), near head of Rio Limon, eastern Panama; collected April 12, 1912, by E. A. Goldman (collector's number 15488).

*Distribution*.—Known from type locality only.

*Specific characters*.—A plainly colored species resembling *E. aurelia* in size and general color of upper parts; lower parts much greener with gray borders to feathers, whitish abdomen and dingy pinkish buffy leg-tufts, latter with a stringy, woolly appearance.

*Description of type*.—Top of head dark green, clear and dull on forehead and changing on crown, nape and sides of head, and to a less extent on neck, to greenish coppery bronze; wing coverts a little richer bronze than sides of neck; all of back to tail coverts clear bright metallic grass green with a slight trace of bronze; upper tail coverts bright rich golden bronze; under parts, from chin to abdomen, clearer and more brilliantly iridescent green than back but with a slight wash of bronzy and feathers along under side of chin, neck and breast, except on sides, narrowly bordered with dull grayish white, giving a scaled appearance in certain lights; white edging to feathers increases posteriorly and leaves middle of abdomen dull whitish; under tail coverts green like feathers of breast and similarly edged with grayish white; leg patches more stringy and less puffed than usual and dingy pinkish-buffy white in front, and more of a dingy smoky buffy posteriorly; wings purplish black, with a narrow rufous-buffy margin at bend; tail dark steel blue-black, with a slight bronzing on middle feathers; tail deeply emarginate.

*Description of adult female*.—Similar to male but much more and clearer white on under parts, including broader edgings to feathers



of neck and breast and larger abdominal area; outer tail feathers with small apical whitish tips.

*Measurements of type*.—Wing, 61; tail, 385; culmen, 21.

*Remarks*.—This species is based on eleven specimens from the type locality. It appears to be quite distinct from the known members of the genus but has a close superficial resemblance on the upper parts to *E. aureliae* but the colors are brighter than in that species. Its entirely buffy, and not very fluffy, leg puffs are a strong character.

**PHÆTHORNIS ADOLPHEI FRATERCULUS**, subsp. nov.

Brown Pigmy Humming-bird

*Type*.—No. 232530, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 2,000 feet altitude) eastern Panama; collected Feb. 28, 1912, by E. A. Goldman (collector's number 15230).

*Distribution*.—Known from type locality only.

*General characters*.—Close to *P. a. saturatus* of western Panama and Costa Rica but distinctly darker above and below, crown more sooty brownish, upper tail coverts darker and more chestnut and light tips of tail feathers narrower. Although this form is based on a single specimen it differs so strongly from the series representing neighboring forms there is little doubt of its being distinct.

**THAMNISTES ANABATINUS CORONATUS**, subsp. nov.

Rufous-crowned Antshrike

*Type*.—No. 238537, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 3,500 feet altitude), eastern Panama; collected June 6, 1912, by E. A. Goldman (collector's number 15845).

*Distribution*.—Panama, from Veragua to the Colombian border.

*Subspecific characters*.—More richly colored than *T. a. saturatus*, with crown dull rufous contrasting with olivaceous brown of back, and under side of neck and upper breast dull ochraceous buffy, contrasting with the olivaceous buffy of rest of under parts.

*Description of type*.—Crown and nape dull chestnut rufous; entire back brownish olive; top of wings, upper tail coverts and tail rusty chestnut becoming browner on terminal half of wings from primaries to tertials; concealed spot of bright orange rufous on back narrowly margined posteriorly with black; chin, under side of neck and fore part of breast deep ochraceous buffy plainly contrasting with the olivaceous buffy of rest of under parts which become paler along



median line and darker and more olive on sides; sexes alike except absence of concealed orange rufous spot on back of female; size about as in *saturatus*.

*Remarks*.—A series of sixteen *T. a. saturatus* from various Costa Rican localities, including the type, agree in having the crown and back of practically the same color and in having the under parts of neck and body nearly uniform. Five specimens from Calobre (Veragua), the Canal Zone, and Cana near the Colombian border, agree in having the crown distinctly more rufous than back and the under side of neck and fore breast ochraceous buffy contrasting with remainder of lower parts. The specimen from Calobre, Veragua, western Panama, in the U. S. National Museum is evidently the basis for the statement by Mr. Ridgway that in *T. a. saturatus* the pileum is sometimes deep russet. As stated above this specimen belongs to the present subspecies and is even darker and more strongly marked than any of the other examples, including the type.

**DYSITHAMNUS MENTALIS SUFFUSUS, subsp. nov.**

Olive-sided Antvireo

*Type*.—No. 238043, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 4,000 feet altitude), eastern Panama; collected May 6, 1912, by E. A. Goldman (collector's number 15676.)

*Distribution*.—Known from upper slopes of Mount Pirri only.

*Subspecific characters*.—Males most like typical *mentalis* but much less yellow below, more as in *septentrionalis*, pale grayish white of under side of neck extending farther back (over front of breast); sides, breast and body much more extensively olive green, limiting the yellow mainly to abdomen; flanks dull olive green; under tail coverts dull yellow or yellowish buffy; the female most like that of *semicinereus* from Bogota but top of head rather duller rusty and rest of upper parts more greenish olive (less tinged with brownish); breast and sides of body dingy brownish olive-greenish, becoming browner on flanks and buffy on under tail coverts; abdomen light yellow washed with brownish olive from sides; size large.

*Measurements of type*.—Wing, 62; tail, 40; culmen, 16; tarsus, 19.5.

*Remarks*.—The type of *D. m. septentrionalis* from Vera Paz, Guatemala, is a much paler and grayer bird than the large series from Costa Rica and western Panama which have been referred to it. Should more material from Guatemala show that this difference



holds between the birds of the two areas the southern bird may require separation as a distinct subspecies. The present form is based on a series of ten specimens.

**HERPSILOCHMUS RUFIMARGINATUS EXIGUUS**, subsp. nov.

Rufous-winged Antvireo

*Type*.—No. 238539, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 3,500 feet), eastern Panama; collected June 6, 1912, by E. A. Goldman (collector's number 15844).

*Distribution*.—Known from type locality and from Boca de Cupe at 250 feet above sea level on the adjoining lowlands.

*Subspecific characters*.—Smaller than *H. rufimarginatus* with larger bill; the male differs in having a broad black band extending as a continuation from black crown and nape down middle of back and rump, this black on back varied with a slight mixture of the bordering gray; cheeks, chin and throat white without trace of yellow suffusion; female browner above and deeper yellow below.

*Description of male (type)*.—Top of head, back of neck and extension of same in a broad band down middle of back and rump black, this black band varied by slight mixture of gray especially on the front of shoulders; sides of neck as well as sides of both back and rump gray; broad superciliary stripe of dull white with fine black edges to feathers; blackish loreal spot and black postocular stripe; sides of head below eyes, chin and throat, dull white, feathers slightly margined with blackish and no yellow suffusion; median part of breast and abdomen dull pale lemon yellow; sides of breast and flanks much paler and grayer; wings black with bright white terminal spots on coverts forming two wing bands, that on lesser coverts broken, on greater coverts larger and more uniform; two innermost tertials strongly edged with white, other tertials, secondaries and primaries edged with rufous chestnut; middle pair of tail feathers dark gray with narrow black shaft line broadening subterminally and tipped with white; outer pair of feathers black with terminal half of outer web and fifth of inner web white, other tail feathers black with small white tips; female with top of head and postocular stripe chestnut; back and rump brownish olive gray; tail with more white on tips and outer webs of all but inner two pairs of feathers than in male; wings and entire under parts similar to male but deeper yellowish with a wash of pale buffy on sides of breast.



*Measurements of male (type).*—Wing, 48; tail, 37.5; culmen, 15; tarsus, 18.5.

*Remarks.*—I have seen no specimens of *H. r. frater*, which was described from Sarayacu, Ecuador, but so far as the characters of this form are given in descriptions it appears to differ from the present form, although von Berlepsch and Hartert state that adult specimens from the Caura River have the interscapular region black, apparently as in the present form (Nov. Zoöl. 1902, p. 75). Goldman collected only two specimens of this bird, a fine adult male and female.

**GRALLARICULA FLAVIROSTRIS BREVIS, subsp. nov.**

Darien Grallaricula

*Type.*—No. 238069, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 4,500 feet altitude), near head of Rio Limon, eastern Panama; collected May 1, 1912, by E. A. Goldman (collector's number 15630).

*Distribution.*—Known from upper slopes of Mount Pirri only.

*Subspecific characters.*—Generally similar to typical *flavirostris* but smaller with much larger bill; upper parts with less brownish suffusion, the crown more olive grayish; back nearly plain olive and outside of wings darker and more olive brown; tawny ochraceous of under side of neck, breast and sides of body about the same, but with black edgings to feathers usually well marked but narrower and less numerous on both throat and breast than in typical *flavirostris*.

*Measurements of type.*—Wing, 64; tail, 26; culmen, 16.5; tarsus, 24.

*Remarks.*—This subspecies is based on four specimens, three of which are much alike but the other lacks the dark edges to feathers of neck and breast as in *costaricensis*, but the ochraceous of these parts is lighter and yellower, the upper parts greener and less brownish olive, and the size smaller with larger bill.

**MARGARORNIS BELLULUS, sp. nov.**

Beautiful Margarornis

*Type.*—No. 238070, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 4,500 feet altitude) near head of Rio Limon, eastern Panama; collected May 1, 1912, by E. A. Goldman (collector's number 15636).

*Distribution.*—Known from upper slopes of Mount Pirri only.

*Specific characters.*—Top of head and neck bistre brown; back burnt umber; tail bright rufous chestnut; chin and throat white;



rest of under parts olive brown with numerous black bordered guttate white spots.

*Description*.—Top of head and neck dull olive brown each feather narrowly bordered with dusky; back and lesser wing coverts burnt umber with broad blackish shaft lines on wing coverts, and obscurely marked narrow dark shaft lines on back; greater wing coverts and exposed parts of scapulars, secondaries, upper tail coverts and top of tail bright rufous chestnut, dullest on wings; greater coverts with blackish shaft lines; primaries edged externally with rusty brown, shaded with olive; sides of head and neck, including malar region, brown like top of head and marked with a supraocular stripe extending back to nape; ring around eyes and streaks along sides of head and neck pale yellowish white; chin and throat white; rest of under parts nearly uniform olive brown (with a slight tinge of reddish on flanks, becoming stronger on under tail coverts) with numerous bright yellowish white guttate spots sharply edged with black, the spots largest along median line, smaller on sides and becoming shaft streaks on under tail coverts; posterior white marks of abdomen smaller and with slight or no dark margins; inner webs of secondaries and all but two or three outer primaries mainly rich orange buff; inner side of wing at bend and axillaries pale buffy with black borders to feathers except on some axillaries, and under secondary and primary coverts.

*Measurements of type*.—Wing, 76; tail, 71; culmen, 14.5; tarsus, 20.

*Remarks*.—This well-marked species is nearest *perlata* but appears to be distinct from any heretofore described. The spots on the under parts resemble those of *perlata* but are much smaller and fewer and the general color of the under parts is browner and less washed with rufous. On the back the two are very distinct. This species is based on six specimens, all from Mount Pirri. In some specimens the dusky shaft streaks on the back are much more prominent than in others and one specimen has a few small scattered yellowish white shaft streaks on the posterior part of the neck or extreme front of the back.

**MITREPHANES EMINULUS, sp. nov.**

Green-backed Flycatcher

*Type*.—No. 238135, adult male, U. S. National Museum, Biological Survey Collection, from Cana, eastern Panama; collected February 26, 1912, by E. A. Goldman (collector's number 15206).

*Distribution*.—Known from type locality only.



*Specific characters.*—Above dark olive greenish, darkest on top of head and on upper tail coverts; wings and tail blackish slate color narrowly margined with dull olive green; lores and narrow ring around eyes dingy yellowish; sides of head olive green like back, under side of neck and breast dingy fulvous—almost olive—buffy shading into olive greenish on sides of breast and changing abruptly into canary yellow on abdomen and under tail coverts, yellow palest on tail coverts and darkest next breast; bend of wing dark olive green; axillaries pale dull yellowish; bill dusky above yellow below; feet and tarsi dusky horn color.

*Measurements of type.*—Wing, 62; tail, 49; culmen, 10; tarsus, 12.3.

*Remarks.*—The present species, represented in the collection by five specimens, differs strongly from other known members of the genus in the green back, light olive-fulvous breast and bright yellow abdomen, thus reproducing a style of coloration found in *Empidonax*. An immature specimen taken at the type locality, March 13, has conspicuous dark buffy edgings to the wing coverts, forming two wing bars; narrow grayish white edgings to outer borders of tertials and small buffy gray tips to points of tail feathers. In the adult the wings and tail are plain, or with scarcely a trace of edgings to the feathers. This species appears to be most closely related to *M. olivaceus* Berl. & Stolz. of Central Peru but is distinguished by the clearer yellow of the abdomen and other characters.

**PRÆDO,<sup>1</sup> gen. nov.**

*Generic characters.*—Small flycatchers closely related to *Aphanotriccus* Ridgway, but with a strong resemblance in coloration to *Empidonax*; bill proportionately broader and much thinner or more flattened than in *Empidonax*, broad and depressed at base with well-marked ridge along top; outline of sides slightly convex subbasally; compressed and hooked at tip with a well-marked notch; rictal bristles fine and weak extending along top of upper mandible three-fourths its length; nostrils open, rounded and set well forward on mandible (about one-third of distance from feathering of forehead to tip); under mandible slightly keeled with broad rounded interramal area extending forward as far as anterior border of nostrils; point of wings short, longest primaries only a little more than half the length of culmen longer than secondaries; tenth or outer primary equals third and also equals the longest secondaries; ninth pri-

<sup>1</sup> Prædo = a robber.



mary nearly equals sixth; seventh and eighth primaries equal and longest; length of tail equals distance from bend of wing to tips of secondaries; tarsus a little more than one-fourth the length of wings; tail emarginate with two outermost pairs of feathers slightly graduated.

*Color*.—Above plain olive green with two dull slightly greenish yellow wing bands; narrow supraloral streak and ring about eye white; chin pale grayish; rest of under parts rich primrose yellow except sides of body and a broad band across breast of dull olive greenish; bill, above and below, black.

Type of genus *Prædo audax* (monotypic).

**PRÆDO AUDAX, sp. nov.**

Black-billed Flycatcher

*Type*.—No. 238681, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 2,000 feet altitude), eastern Panama; collected March 19, 1912, by E. A. Goldman (collector's number 15403).

*Distribution*.—Known from type locality only.

*Specific characters*.—Resembles *Empidonax* in general coloration (upper parts olive green, two pale wing bands, under parts yellow except olive breast), but at once distinguished by its black bill and short extension of primaries beyond tips of secondaries.

*Description of type*.—Upper parts olive green distinctly darkest on top of head and neck and palest on upper tail coverts and borders of tail feathers; lores dusky; ear coverts and below eyes dark olive; a narrow supraloral streak and ring about eyes white; wings dusky slaty gray, darker than tail, with two wing bands and edges of secondaries and tertials dull greenish yellow; edges of primaries dull olive; chin and upper throat pale gray tinged with yellow; rest of throat, under side of neck, abdomen and under tail coverts rich primrose yellow, dullest on coverts; sides of neck and breast and a narrow band of same across front of breast dull olive green; flanks olive green above and yellow below; upper and lower mandibles black with lower mandible becoming dark horn color at base; feet and tarsus dusky horn color.

*Measurements of type*.—Wing, 58; tail, 52.3; culmen, 13; width of bill at angle of gape 10; tarsus, 15.

*Remarks*.—This interesting little flycatcher at first glance appears to be a small species of *Empidonax*, but the entirely black bill, situation of nostrils and other characters show that it is generically dis-



inct. It appears, however, to be closely related to that genus, and to *Aphanotriccus*. Goldman secured two specimens both from the type locality, one in March and the other the last of May.

**CARYOTHRAUSTES CANADENSIS SIMULANS, subsp. nov.**

Black-masked Finch

*Type*.—No. 238535, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 3,000 feet altitude), eastern Panama; collected June 10, 1912, by E. A. Goldman (collector's number 15876).

*Distribution*.—Known from type locality only.

*Subspecific characters*.—Much like typical *canadensis* from Cayenne but black area on chin and throat larger and upper parts paler; more golden yellow on forehead and crown shading back into lighter more yellowish olive green on back; front of head including band across forehead, lores, sides of head back to include eyes, and down over chin and throat black; auricular region and under parts of body bright golden yellow as in *brasiliensis*; size of *canadensis* but bill larger and heavier.

*Measurements of type*.—Wing, 86; tail, 66; culmen, 18; tarsus, 22.

*Remarks*.—In the black frontal band this form resembles *P. c. frontalis* Hellmayr (Nov. Zoöl. 1895, p. 277) from N. E. Brazil but differs otherwise. Two specimens examined.

**TANAGRA XANTHOGASTRA QUITENSIS, subsp. nov.**

Quito Manakin

*Type*.—No. 30929, adult male, U. S. National Museum, from Quito, Ecuador, collected by C. R. Buckalew.

*Distribution*.—Peru (except southeastern part) and Ecuador.

*General characters*.—Largest of the known subspecies with distinctly paler yellow crown and less orange yellow on under parts; entire upper parts black suffused with violet iridescence strongest on back of neck and gradually lessening to top of tail; black of chin and throat faintly tinged with violet; under parts of body and under tail coverts chrome yellow becoming more orange along median line.

*Measurements of type*.—Wing, 66; tail, 40; culmen, 10; tarsus, 17.

*Remarks*.—This form is distinguished from typical *xanthogastra* as well as from *brevirostris* and *brunneifrons* by its large size and pale yellow crown; from *chocoensis* by its larger size and much stronger violet iridescence on upper parts and richer and more orange yellow under parts.



The subspecies of *T. xanthogastra* stand as follows:

*T. xanthogastra xanthogastra* Sundevall. Brazil.

*T. xanthogastra brevirostris* Bp. Middle and eastern Colombia.

*T. xanthogastra chocoensis* Hellmayr. Western Colombia and eastern Panama.

*T. xanthogastra brunneifrons* Chapman. Southeastern Peru.

*T. xanthogastra quitensis* subsp. nov. Peru (except southeastern part) and Ecuador.

Four specimens of this subspecies examined.

### TANGARA FUCOSUS, sp. nov.

Green-naped Tanager

*Type*.—No. 232996, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,000 feet altitude) near head of Rio Limon, eastern Panama; collected May 1, 1912, by E. A. Goldman (collector's number 15640).

*Distribution*.—Known from type locality only.

*Specific characters*.—In size and general appearance closely resembles *T. dowii*, but at once distinguishable by the green instead of brown patch on middle of occiput, by a well-marked green patch covering part of cheeks and auriculars and the imperfect nuchal collar; ends of black feathers on neck below black throat-patch broadly tipped with blue; under parts of body ochraceous buffy much paler than in *dowii*; feathers along sides of breast and flanks with dark centers similar to those on breast.

*Description*.—Head, neck, back and upper sides of wings and tail black, duller than in *dowii*, and the back lightly washed with greenish; a patch across back of crown, an imperfect nuchal collar, the lower part of cheeks and part of ear coverts beryl green varying in different lights and glossed with metallic ochraceous buffy, the latter strongest on cheeks and ear coverts; rump glaucous green varying in different lights; chin and throat plain black; feathers on remainder of under side of neck broadly tipped with ultramarine blue, forming a thin blue patch over the black feathers; lesser wing coverts bordered with same blue color; greater coverts paler blue, and tertials, secondaries and primaries lightly edged with a more greenish blue; tail feathers bordered with latter color; feathers of breast and sides of body, including flanks, with black or dusky centers edged with light green on fore part of breast and with paler greenish and buffy on lower breast and sides of body; the dark centers less strongly marked posteriorly and buffy edgings distinctly washed



with pale greenish; middle of breast, abdomen and under tail coverts dull buffy, palest anteriorly and dark ochraceous buffy on under tail coverts; dark centers of feathers on breast less sharply defined than in *dowii*.

*Measurements of type*.—Wing, 72; tail, 50; culmen, 12; tarsus, 19.

*Remarks*.—Described from three specimens collected near the summit of Mount Pirri, where they were not common.

**HYLOSPINGUS,<sup>1</sup> gen. nov.**

*Generic characters*.—Most closely related to *Chlorospingus* but larger, with proportionately heavier bill, tarsus and feet; more pointed wing and outer tail feathers broader and more graduated giving a more rounded end to tail.

Bill, feet and tarsus rather short and heavy; bill compressed laterally, about two-thirds as wide as deep at nostrils; upper and lower outlines slightly curved, tip of upper mandible slightly overhanging and notched; cutting edge of upper mandible slightly sinuate; wing formula nearly as in *Chlorospingus*, 9th primary slightly longer than longest secondary; 8th a little shorter than 6th and 7th which are subequal and longest; longest primaries about length of culmen longer than secondaries; three outer pairs of tail feathers graduated enough to produce a distinctly but not strongly rounded tail; tarsus unusually thick with short strong toes and claws; middle toe with claw about three-fourths length of tarsus; tarsus less than one-third length of wing and less than half the length of tail.

*Color*.—Top of head dark slate color; rest of upper parts plain olive green; under parts greenish yellow becoming more orange from chin to breast. Sexes alike.

Based on *Hylospingus inornatus* sp. nov. (monotypic).

**HYLOSPINGUS INORNATUS, sp. nov.**

Mount Pirri Tanager

*Type*.—No. 238680, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,200 feet altitude) eastern Panama; collected April 14, 1912, by E. A. Goldman (collector's number 15497).

*Distribution*.—Known from higher slopes of Mount Pirri only.

*Specific characters*.—Much like a large dark colored species of *Chlorospingus*; top of head dark slate color, rest of upper parts olive green; below mainly greenish yellow, palest along median parts.

*Description*.—Top and sides of head to include lores and sub-orbital area to angle of gape blackish slate color, darkest on fore-

<sup>1</sup> ὕλη = forest, σπιγγος = a small bird.



head, lores and below eyes; posterior part of crown becoming greenish and shading into the nearly uniform olive green covering rest of upper parts, but becoming a little brighter greenish on edgings to wings and on rump; chin, throat and breast dull gamboge yellow, a little paler on throat and darker and more greenish on breast; feathers of chin and throat marked with inconspicuous small arrow-shaped black spots on tips as in some species of *Chlorospingus*; sides of breast and flanks yellowish olive green shading into dull lemon yellow on abdomen; under tail coverts dull gamboge yellow; primaries dark slate except for greenish edges; tail olive green; bill blackish; feet dusky horn color.

*Measurements of type*.—Wing, 82; tail, 66; culmen, 15; tarsus, 27.

*Remarks*.—Goldman found this to be a common bird in the tree tops on the summit of Mount Pirri. He informs me that the skin on the top of the head is much thickened and oily although these birds have no crest or other development of the feathers which would account for this character.

**CHRYSOTHYLPIS CHRYSOMELAS OCULARIS, subsp. nov.**

Black and Gold Tanager

*Type*.—No. 238544, adult male, U. S. National Museum, Biological Survey Collection, from Cana (at 3,500 feet altitude), eastern Panama; collected June 6, 1912, by E. A. Goldman (collector's number 15848).

*Distribution*.—Eastern Panama.

*Subspecific characters*.—Similar to typical *chrysomelas* but males differ in having a broader black ring around eyes, the black extending forward anteriorly to form a well-marked loreal spot; females more strongly distinguished from those of the typical form by having entire under parts, from chin to under tail coverts, nearly uniform greenish yellow; typical *chrysomelas* has chin, throat and under tail coverts duller yellow, middle of breast and abdomen whitish and sides of breast and flanks dull grayish with a faint wash of yellow.

*Remarks*.—A series of five specimens including both sexes was collected at the type locality.

**HEMITHRAUPIS ORNATUS, sp. nov.**

Orange-throated Tanager

*Type*.—No. 17880, adult male, U. S. National Museum, from Truando, Colombia; collected by A. Schott.

*Distribution*.—From Cana, eastern Panama, to Truando, north-western Colombia.



*Specific characters.*—Close to *H. flavicollis* but smaller with yellow areas a rich dark cadmium yellow.

*Description of type.*—Top and sides of head, including ear coverts, top and sides of neck, anterior half of back, top of wings and upper tail coverts dull black, of a more intense or less sooty shade than in typical *flavicollis*; chin, sides of head up to lower border of eyes, fore neck, under tail coverts and posterior half of back, including rump, rich dark cadmium yellow; under side of body white, nearly pure along middle and grayer on sides; indistinct and partly hidden black bars on whitish feathers immediately back of yellow area on upper breast; axillars and basal part of inner webs of primaries and secondaries pure white.

*Measurements of type.*—Wing, 66; tail, 48; culmen about 11.5 (broken); tarsus, 16.5.

*Remarks.*—A nearly mature male collected by Goldman at Cana, eastern Panama, May 22, 1912, agrees with the type in the intense cadmium color of the yellow areas except the under tail coverts which are mainly lemon yellow but contain new cadmium colored feathers showing the paler color to be a mark of immaturity. Two specimens of this subspecies examined.

**VIREOLANIUS EXIMIUS MUTABILIS, subsp. nov.**

Panama Shrike Vireo

*Type.*—No. 238507, adult female, U. S. National Museum, Biological Survey Collection, from Cana (at 3,000 feet altitude), eastern Panama; collected June 11, 1912, by E. A. Goldman (collector's number 15893).

*Distribution.*—Known from type locality only.

*Subspecific characters.*—Similar to typical *eximius* but supraloral part of superciliary yellow stripe broader and a tinge of yellowish green suffuses and nearly replaces the blue on forehead back to about middle of orbits, the posterior part of crown and nape being clearest blue, whereas the forehead and front of crown are most clearly blue in the type of *eximius*; ear coverts bordered posteriorly with blue like that of crown; chin and throat clear bright canary yellow changing rather abruptly into, and contrasting with, the yellowish green of lower neck and breast (in *eximius* the chin is more greenish yellow and shades thence gradually over throat to green of breast); green of under parts paler and more yellowish becoming pale olive yellow on middle of abdomen; under tail coverts canary



yellow about like chin and throat; in type of *eximius* the under parts are a nearly uniformly darker greenish than in the present form.

*Measurements of type of eximius* (sex?).—Wing, 75; tail, 48.5; culmen, 19; tarsus, 21.

*Measurements of type of mutabilis* (ad. ♀)—Wing, 70; tail, 44; culmen, 17.5; tarsus, 21.5. Owing to the sex of the type of *eximius* being unknown it is impossible to decide whether the differences in size shown in these measurements are due to sex or not.

*Remarks.*—Through the courtesy of Mr. Witmer Stone, Curator of Birds in the Philadelphia Academy of Natural Sciences, I have been able to make direct comparison with the type of *eximius*. It was formerly mounted and shows some signs of fading, but the retention of the yellow practically unchanged on the superciliary stripe and chin and its absence on the abdomen and under tail coverts indicate that it never existed on these last named parts, and thus differs strongly from the present form in this character as well as in the restricted area of yellow on the chin and throat. The back of the type of *mutabilis* is more bluish green than in the type of *eximius* but this may be due to fading in the latter. From the foregoing it appears that notwithstanding any fading that may have occurred in the type of *eximius* the present form differs from it sufficiently to be recognized as a geographic race. The type is the only specimen seen by Goldman and these birds are apparently scarce in eastern Panama.

**BASILEUTERUS MELANOGENYS IGNOTUS, subsp. nov.**

Mount Pirri Warbler

*Type.*—No. 232972, adult female, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,200 feet elevation), near head of Rio Limon, eastern Panama; collected April 18, 1912, by E. A. Goldman (collector's number 15539).

*Distribution.*—Known from type locality only.

*Subspecific characters.*—In general similar to typical *melanogenys*, but superciliary line pale greenish yellow and broader in front where occupying most of forehead; lores black but remainder of sides of head and chin pale greenish yellow (like under side of body) finely flecked and mottled with black, the black heaviest on malar region and immediately below eyes; back distinctly greener and under parts with a stronger greenish yellow suffusion; size smaller with proportionately larger bill.



*Measurements of type*.—Wing, 56; tail, 56.5; culmen, 12; tarsus, 20.

*Remarks*.—This form is based on a single specimen which is so strongly characterized by the yellow superciliary line, restriction of black on the sides of the head, and much more greenish back and yellow under parts that it evidently represents a well-marked subspecies.

**BASILEUTERUS MELANOGENYS EXIMIUS, subsp. nov.**

Boquete Warbler

*Type*.—No. 188465, adult female, U. S. National Museum, from Boquete (at 5,000 feet altitude), western Panama; collected March 23, 1901, by W. W. Brown (Bangs collection).

*Distribution*.—Known from type locality only.

*Subspecific characters*.—Paler and grayer than true *melanogenys*; back of neck and back dull gray, becoming more greenish on rump and borders of wings and tail; under side of neck and body much paler and more whitish lacking nearly all the yellowish suffusion of *melanogenys* and *ignotus*; sides of breast and flanks grayer and less olive greenish; size about the same.

*Measurements of type*.—Wing, 60; tail, 58; culmen, 12; tarsus, 23. Measurements of type of *B. melanogenys* (male adult No. 30497 U. S. National Museum): Wing, 61; tail, 60; culmen, 12; tarsus, 22.

*Remarks*.—Two specimens in the National Museum collection from Boquete, western Panama agree in the characters named above and are so easily recognizable from the large series in the National Museum of true *melanogenys* from Costa Rica, including the type, it is evident they represent a distinct subspecies. The gray backs and pale under parts at once distinguish the Boquete form from the greenish backs and yellowish tinged under parts of true *melanogenys*.

**TROGLODYTES FESTINUS, sp. nov.**

Mount Pirri House Wren

*Type*.—No. 238012, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,200 feet altitude), near head of Rio Limon, eastern Panama; collected April 18, 1912, by E. A. Goldman (collector's number 15538).

*Distribution*.—Known from type locality only.

*Specific characters*.—Most like *T. ochraceous* but smaller with longer bill; lighter under parts (abdomen white) and shorter superciliary stripe.



*Description of type.*—Entire upper parts, including a broad post-ocular streak, tops of wings and tail tawny brown; wings indistinctly barred with dusky brown; top of tail feathers with transverse series of small dusky spots and imperfect bars more regularly placed than in *ochraceus*; lores, chin and sides of head below eyes from malar region back to include lower two-thirds of ear coverts and lower part of sides of neck bright ochraceous but not so rich as in *ligea*; supra- and postocular streak, ending abruptly at posterior border of ear coverts, ochraceous buffy; middle of throat, under side of neck and breast dull ochraceous buffy; abdomen dull white; sides of breast and flanks ochraceous brown; under tail coverts dull ochraceous indistinctly and irregularly barred with dusky.

*Measurements of type.*—Wing, 44; tail, 27.5; culmen, 14.5; tarsus, 17.5.

*Remarks.*—Although the present species is much like *ochraceus* yet owing to the two species belonging to high mountain areas widely separated by lowlands it is probable that intergradation does not occur. Goldman only secured a single specimen and saw one other during his stay of nearly a month on Mount Pirri so they appear to be uncommon. The present bird is much less reddish fulvous than *T. ochraceus ligea* from Chiriqui and differs from it more than from typical *ochraceus*. Compared with *T. solstitialis pallidipectus* of western Colombia *festinus* is smaller, with longer bill and brighter more reddish ochraceous on sides of head and neck and upper parts of head and body, and less strongly marked bars on wings and tail.

#### MYADESTES COLORATUS, sp. nov.

Varied Solitaire

*Type.*—No. 232601, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,000 feet altitude), near head of Rio Limon, eastern Panama; collected March 6, 1912, by E. A. Goldman (collector's number 15309).

*Distribution.*—Known from type locality only.

*Specific characters.*—Head, neck and under parts of body gray with a jet black mask about base of bill, extending back to eyes as in *M. melanops*, with top of back and wings rufous nearly as in *ralioides*.

*Description.*—Front of head covered by a black mask surrounding base of bill, covering forehead and sides of head to middle of eyes, malar region and chin; rest of head, neck and under parts of body clear dark ashy gray a little paler than in *melanops*, sometimes



washed with rusty olive on back of crown and nape and a more or less strong wash of same on flanks; middle of abdomen paler, sometimes almost whitish posteriorly; under tail coverts pale gray slightly tipped with whitish; top of back and wings tawny rusty rufous shaded with olivaceous anteriorly and becoming more rufous posteriorly to the dark rusty rufous rump and upper tail coverts; secondary wing coverts like back but shading into deep ochraceous buffy on borders; primaries, primary coverts and secondaries blackish, bordered on outer web of terminal half of secondaries with color of back and slight edging of same on terminal half of primaries; tertials mainly rufous a little lighter (more buffy) than back; top of tail slaty black slightly washed with olive gray on middle feathers; outer pair of tail feathers pale dull gray on terminal two-thirds, edged at tip of inner web with white; second pair of feathers with a short gray spot near tip narrowly edged with whitish and a small whitish tip to third pair; exact amount of white on tail feathers varying a little individually; bill varying from orange yellow to orange red; feet and tarsus waxy yellow, sometimes tinged with orange.

*Measurements of type*.—Wing, 87; tail, 81; culmen, 14; tarsus, 21.

*Remarks*.—This handsome species is based on a series of sixteen specimens all from at or near the type locality.

**CATHARUS FUSCATER MIRABILIS**, subsp. nov.

Darien Nightingale Thrush

*Type*.—No. 232933, adult male, U. S. National Museum, Biological Survey Collection, from Mount Pirri (at 5,200 feet altitude), near head of Rio Limon, eastern Panama; collected April 18, 1912, by E. A. Goldman (collector's number 15534).

*Distribution*.—Known from higher parts of Mount Pirri only.

*Subspecific characters*.—Most like *C. f. hellmayri* but upper parts clearer slaty blackish, distinctly black on top and sides of head and more slaty on back, and lacking the brownish shade suffusing *hellmayri*; most of under parts of head and body dull white suffused with pale buffy yellowish; size slightly larger.

*Description of type*.—Top and sides of head including malar region black with only slight traces of dark slaty but shading into clear dark slaty on top of neck, back and tail; wings a little more brownish slaty than back; a fine line of black extends forward from malar region along lower borders of rami to chin; remainder of chin and throat under side of breast and abdomen dull white suffused with pale buffy yellowish and faintly clouded with slaty gray; an



indistinct band of same slate gray across breast in front, where commonly almost divided in middle by extension of whitish area along median line; sides of neck, breast and flanks slate gray, paler and slightly browner than back; under tail coverts dull buffy gray (sometimes tinged with more brownish than flanks or with pale buffy yellow); bill bright orange red; feet and legs orange yellow; sexes alike except for smaller size of females.

*Measurements of type.*—Wing, 83; tail, 72; culmen, 17; tarsus, 34.

*Remarks.*—This handsome subspecies is at once distinguishable from *hellmayri* by its blacker head, grayer, or less brownish, upper parts and the distinctly yellowish of the light area on the under parts of the head, neck and body. It is based on a series of twelve specimens.





Nelson, Edward William. 1912. "Descriptions of new genera, species and subspecies of birds from Panama, Columbia and Ecuador." *Smithsonian miscellaneous collections* 60, 1–25.

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