

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

NINE NEW SUBSPECIES OF BIRDS FROM VENEZUELA

BY WILLIAM H. PHELPS AND WILLIAM H. PHELPS, JR.

Study of specimens in the Phelps Collection, Caracas, and of comparative material in the American Museum of Natural History, shows the following new subspecies. Specimens listed are in the Phelps Collection unless otherwise specified.

We wish to express our thanks to Mr. James L. Peters of the Museum of Comparative Zoology, to Dr. John T. Zimmer of the American Museum of Natural History and to Dr. Herbert Friedmann of the United States National Museum for access to the collections in those institutions.

Names of colors are capitalized when direct comparison has been made with "Ridgway's Color Standards and Color Nomenclature," 1912.

Crypturellus undulatus manapiare, new subspecies

Type: From San Juan de Manapiare, Río Manapiare, Territorio Amazonas, Venezuela; 160 meters. No. 52247, Phelps Collection, Caracas, Venezuela. Adult male collected March 3, 1951, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from all races of *C. undulatus* by the darker, more dusky forehead and fore-crown, instead of more brownish; closest to *C. u. confusus* (Brabourne and Chubb) from the Rio Madeira from which it differs only by color of crown; differs from *C. u. yapura* (Spix) from Manaos, additionally, by heavier barring on flanks and crissum.

Range: Collected on the Manapiare River and its affluent, Caño Negro, in the Ventuari River Basin, in the Tropical Zone.

Description of Type: Forehead and fore-crown brownish dusky, merging into the more brownish of neck, back Sayal Brown, paler on the mantle and merging into the more grayish rump and light grayish tail; entire upper parts except head and neck finely vermiculated with black; sides of head grayish brown. Chin white merging into the pale gray throat which is heavily spotted with white; breast and sides grayish olive, browner anteriorly with very fine dusky vermiculations; abdomen, anteriorly, buffy gray merging into whitish posteriorly where barred prominently with brownish black; flanks buffy, heavily barred with brownish black. Primaries (and bastard wing) Natal Brown, inner webs on lower surface broadly edged with grayish and finely vermiculated with black as on back; external under wing-coverts Natal Brown, internal ones grayish white; axillaries pale brown. Tail dark buffy, below more grayish, with fine black vermiculations. Bill (in life) "black"; feet "yellowish green"; iris "chestnut". Wing, 158 mm.; tail, 50; culmen from base, 33; tarsus, 53.

Remarks: Sexes alike. Size similar to *yapura*. Range of measure-

Tropical and lower Subtropical Zones at altitudes of 450 and 1150 meters.

Description of Type: Top and sides of head, nape and back brownish black, more brownish on uropygium, speckled with pale buffy (whitish on nape) on edges of feathers giving a striped appearance; prominent whitish areas laterally on mantle; concealed feathers above the eye, and in upper tail-coverts, largely white. Chin blackish speckled with white; a prominent white band across anterior throat; posterior throat and breast blackish with buffy and whitish speckling and barring; abdomen Cinnamon, more whitish anteriorly; under tail-coverts paler. Wings Bone Brown; outer webs of remiges barred with dark buff; tips of inner primaries largely whitish; tertiaries largely white with prominent blackish shaft spots, minutely and closely speckled with pale brown; upper wing-coverts barred or speckled with buff as on primaries, middle ones largely edged with white; under wing-coverts and axillaries uniform with abdomen. Tail Bone Brown; rectrices, except middle ones, barred with buffy, apically with whitish; middle rectrices widely barred with grayish with brown mottling. Bill (in dried skin) black; feet brown. Wing, 195 mm.; tail, 80; culmen from base, 20; culmen from nostril, 7; tarsus, 12; weight in flesh, 83 gr.

Remarks: Sexes alike. Wing longer than in *semitorquatus*. Range of measurements: ten adult males—wing, 175-210(185.4) mm.; tail, 75-98(79.3); culmen from base (6), 17-20(18.6); ten adult females—wing, 183-198(188.5); tail, 73-88(79.5); culmen from base (2), 21-21(21); three adults of undetermined sex—wing, 186-210(195); tail, 84-88(85.3). Measurements of *semitorquatus* from Trinidad: two adult males—wing, 163-169(166); tail, 73-75(74); culmen from base, 17-18(17.5); two adult females—wing, 176-177(176.5); tail, 75-80(77.5); culmen from base, 17-18(17.5); one adult of undetermined sex—wing, 170; tail, 76; culmen from base, 18.

There is a specimen in the American Museum of Natural History, a male from Telembi, northwestern Ecuador, which had been identified as *semitorquatus*, quite outside of the range of this subspecies. Dr. John T. Zimmer suspected that it might be *noctivagus* Griswold² from Panamá, known only from the unique type in the Museum of Comparative Zoology, as it seemed different from the American Museum series from Trinidad. Mr. J. L. Peters sent this type to Dr. Zimmer for comparison. The Telembi skin proved to be more similar to it than to *semitorquatus*. It resembles *noctivagus* in larger and rounder, more rufescent, spots on crown, back and upper tail-coverts. The breast markings are intermediate, not as prominent and rufous as in *noctivagus* but closer to it than to *semitorquatus*.

We are pleased to name this bird after the collector, Dr. Ernst Schaefer, in charge of the Rancho Grande Biological Station, who, in the short time that he has been there, has already made important contributions to the ornithology of the Rancho Grande National Park.

Specimens Examined

L. s. noctivagus.—PANAMA: Salamanca Hydrographic Station, Río Pequení, 1 ♀³. ECUADOR: Telembi, 1 ♂¹.

²Proc. New England Zool. Cl., 15, p. 101, 1936.

³Specimens in Museum of Comparative Zoology.

L. s. ruftventris.—VENEZUELA: San Jacinto, Mérida, 1 ♂; Mérida, 1 ♂¹; La Sierra, 1 ♀¹; Montañas, 1 ♂ juv.¹; Conejos, 1 ♂¹; Valle, 1 ♀¹. COLOMBIA¹: Subia, Cundinamarca, 1 ♀; Aguadita, Fusugasuga, 1 ♀.

L. s. schaeferi.—VENEZUELA: Rancho Grande, Aragua, 1 ♂ (type), 1 ♂, 4 ♂⁴, 8 ♀⁴, 3 (?)⁴; near Rancho Grande (450 m.), 3 ♂⁴, 1 ♂, 2 ♀⁴.

L. s. semitorquatus.—TRINIDAD¹: 2 ♂, 2 ♀, 1 (?). VENEZUELA: La Faisca mine, Cerro Paurai-tepui, 1 (?). juv.

Nyctiprogne leucopyga pallida, new subspecies

Type: From San Fernando de Apure, Estado Apure, Venezuela; 140 meters. No. 47719, Phelps Collection, Caracas, Venezuela. Adult female collected October 30, 1948, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from *N. l. exigua* Friedmann of the Upper Orinoco by paler upper parts, the buffy markings lighter and more extensive and the blackish ones more restricted; differs from *N. l. leucopyga* (Spix) of the Amazon River by being paler and smaller.

Range: Along the lower Orinoco River from Barrancas up to Caicara and up the Apure River to Guasualito; also on the lower Paragua River.

Description of Type: Head, back and rump Pinkish Cinnamon, finely speckled with dusky on head and rump and finely barred on nape; top of head striped prominently with blackish; scalpulars with heavy black blotches along shaft and edged with prominent Ochraceous-Buff spots. Chin, throat, breast and sides Pinkish Cinnamon, finely barred with dusky; middle breast barred more heavily with buffy white and dusky; abdomen, flanks and under tail-coverts whitish, heavily barred with brownish black. Wings Benzo Brown; outer webs of primaries and secondaries barred with Ochraceous-Tawny, the inner webs lightly so with pale buffy; tertials finely speckled with pale buffy; upper wing-coverts finely speckled and spotted with buffy; under wing-coverts and axillaries dusky, barred with whitish. Tail Natal Brown; six outer rectrices barred basally with Ochraceous-Tawny, whitish on under surface and with a broad white band across the middle, confined to the inner web on the outermost; four middle rectrices barred with buffy mottling.

Bill (in life) "black"; feet "black"; iris "dark". Wing, 125 mm.; tail, 88; exposed culmen, 4; tarsus, 10.

Remarks: Sexes alike. Size similar to *exigua*. Range of measurements of topotypical specimens from San Fernando de Apure: one adult male—wing, 126 mm.; tail, 88; exposed culmen, 4; four adult females—wing, 120-128(124); tail (3), 82-88(86); exposed culmen, 4-4(4); one of undetermined sex—wing, 124; tail, 84; exposed culmen, 4.5. Measurements of *exigua* from Upper Orinoco: three adult males—wing, 132-135(133.3); tail, 85-90(88); exposed culmen, 4-4.5(4.2); three adult females—wing, 125-130(127.3); tail, 83-88(85.7); exposed culmen, 4-4.5(4.2).

The specimens from San Fernando de Atabapo and Maipures are intermediates but closer to *exigua* while those from Ciudad Bolívar and Barrancas, though not typical, are closer to *pallida*.

¹Specimens in Estación Biológica de Rancho Grande, Venezuela.

Specimens Examined

N. l. leusopyga.—BRAZIL: Pinhel, Rio Tapajoz³, 1 ♂, 2 ♀, 1 (?); Miri-tituba, Rio Tapajoz, 1 ♀⁵; Santarem, 1 ♂³, 1 ♀³, 1 (? juv.)⁵.

N. l. exigua.—VENEZUELA: Río Pacila, Caño Casiquiare, 2 ♂⁵; frente a la Isla Corocoro, 1 ♀; San Juan de Manapiare, 2 ♂ 1 ♀, 2 (?); Puerto Yapacana, 1 ♂, 1 ♀, 2 (?); San Fernando de Atabapo, 2 ♂ 4 ♀, 1 ♀¹; Maipures, 1 ♀¹.

N. l. pallida.—VENEZUELA: Guasualito, 1 (?); San Fernando de Apure, 1 ♂, 4 ♀ (incl. type), 1 (?); Caicara, 1 ♂¹, 1 ♂, 1 ♀; Altigracia¹, 1 ♂, 3 ♀; Ciudad Bolívar¹, 2 ♂, 2 ♀; Barrancas, 1 ♂¹; La Paragua, 1 ♀.

Phaethornis longuemareus imatacae, new subspecies

Type: From Cerro Tomasote, El Palmar, Estado Bolívar, Venezuela; 500 meters. No. 17728, Phelps Collection, Caracas, Venezuela. Adult male collected April 6, 1942, by Fulvio Benedetti. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from all races of *P. longuemareus* by paler, more whitish abdomen. From *P. l. longuemareus* (Lesson), of Trinidad, the Delta of the Orinoco and the Guianas, it differs additionally by paler throat, buffy gray instead of deep buff; breast whiter, buffy white instead of buffy; and upper tail-coverts with less rufous. From *P. l. ignobilis* Todd, of the Caracas region, and *P. l. striigularis* Gould, of the Lake Maracaibo region and Colombia, it differs additionally by a larger bill.

Range: Known only by the type specimen from Cerro Tomasote, Sierra Imataca, in the Tropical Zone.

Description of Type: Top of head and lores Bone Brown, feathers very slightly edged with bronzy, very much so on nape; back and uropygium Buffy Citrine, upper tail-coverts broadly edged with rufous brown; a broad buffy white superciliary stripe; a large dusky post-orbital spot; gular region pale buffy. Chin and throat widely streaked with dusky, merging into the grayish buff of breast; sides of neck Snuff Brown; sides and flanks brownish buffy; abdomen buffy white; under tail-coverts pure white; axillaries whitish. Wings Bone Brown; lesser upper wing-coverts uniform with back; under wing-coverts dusky. Tail bronzy green, middle rectrices broadly tipped with white, the others more narrowly tipped and edged terminally with white, the outermost with buff. Maxilla (in life) "black"; mandible, "yellow, black tip"; feet "flesh"; iris "brown". Wing, 43 mm.; tail, 41; exposed culmen, 26.5; culmen from base, 30; tarsus, 5.

Remarks: Size similar to *longuemareus*. Range of measurements of topotypical *longuemareus* from French Guiana: five adult males—wing, 40.5-42(41.6) mm.; tail, 39-42(40.4); exposed culmen (4), 24-26(25.2); three adult females—wing 41-43(42); tail, 38-40(39.3); exposed culmen (2), 25, 25. Measurements of four adult male *ignobilis* from Cerro Golfo Triste, Miranda—wing, 37-39(37.6); tail (3), 37-39(38); exposed culmen (3), 20.5-24(22). Measurements of three adult male *striigularis* from extreme northwestern Venezuela (La Fría, Táchira, 2; Mene Grande, Zulia, 1)—wing, 34-37(35); tail (2), 34-35(34.5); exposed culmen, 21-22(21.5).

⁵Specimens in U. S. National Museum.

The subspecific name for this bird has been taken from the isolated range of mountains, the Sierra Imataca, along the northeastern boundary of the state of Bolívar, of which Cerro Tomasote is one of its peaks.

Specimens Examined

- P. l. cordobae*.—MEXICO^o: 4.
P. l. saturatus.—GUATEMALA^o: 4.
P. l. subrufescens^o.—PANAMA: 4. COLOMBIA: 6. ECUADOR: 19.
P. l. atrimentalis^o.—COLOMBIA: 1. ECUADOR: 12. PERU: 5.
P. l. striigularis.—VENEZUELA: La Fria, 2♂, 1(?); El Vigía, 1(?); Mene Grande, 1♂. COLOMBIA^o: 37.
P. l. ignobilis.—VENEZUELA: Santa Bárbara, Barinas, 1(?); Altamira, Barinas, 1(?); Barinitas, 2(?); Urama, 1♂; Las Quiguas, 2♀¹; San José de Los Caracas, 1(?); Cerro Golfo Triste, 4♂, 1♂¹; Cerro Negro, Miranda, 1(?).
P. l. imatacae.—VENEZUELA: Cerro Tomasote, El Palmar, 1♂ (type).
P. l. longuemareus.—VENEZUELA: Tunapui, 1♂; Guaraúnos, 1♀; Yaguaraparo, 1(?); Misión Araguaímujo, 1♂; Curiaipo, 1♀. TRINIDAD²: 6♂, 4♀, 4(?). DUTCH GUIANA¹: Paramaribo, 6♂, 2(?); Kuvata, 1♂. FRENCH GUIANA¹: Approuage, 4♂, 3♀; Cayenne, 4♂, 2(?); Roche Marie, 1♂.
P. l. aethopyga.—BRAZIL^o: 2.
P. l. idaliae.—BRAZIL^o: 8.

Colibri coruscans rostratus, new subspecies

Type: From Cerro Huachamacare, Río Cunucunuma, Territorio Amazonas, Venezuela; 2000 meters. Adult male collected December 5, 1950, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from *C. c. germanus* (Salvin and Godman) from Cerro Roraima and the Gran Sabana mountains, by decidedly longer bill; tail also longer.

Range: Known from the mountains Huachamacare, Duida, Yaví and Guanay in the Upper Orinoco region in the Subtropical Zone at altitudes from 1700 to 2500 meters.

Description of Type: Top of head and back Rinnemann's Green, uropygium more yellowish, the feathers tipped with dusky; forehead against bill, and lores, with a bluish cast; sides of head, ear-coverts and elongated neck tuft Blue-Violet. Chin and forethroat Blue-Violet, centers of feathers dusky, giving a striped appearance, merging into the Light Blue Green of posterior throat and breast, the feathers with wide dusky shaft stripes also giving a striped appearance; sides, flanks and axillaries Rinnemann's Green; abdomen Blue Violet; under tail-coverts Deep Glaucus Green, edged with pale buffy. Wings Dark Purple Drab; lesser upper wing-coverts and under wing-coverts Rinnemann's Green. Two central rectrices Dark Viridian Green, bluer on outer web; rest of rectrices Patent Blue; all rectrices tipped with dusky; a sub-

^oSpecimens in American Museum of Natural History. For localities see Zimmer, *Am. Mus. Nov.*, No. 1449, Jan. 13, 1950, pp. 50, 51.

terminal dark dusky blue band across tail. Bill in life) "black"; feet "black"; iris "dark". Wing, 87 mm.; tail, 58; exposed culmen, 25; culmen from base, 33; tarsus, 6.5.

Remarks: Sexes similar in coloration but male larger. Range of measurements (specimens from Cerro Huachamacare): nine adult males—wing, 86, 84, 84, 85, 80, 84, 82, 87, 83 = 82-87(83.9) mm.; tail, 56, 55, 52, 57, 53, 53, 55, 58, 55 = 52-58(54.9); exposed culmen (8), 25, 24, 23, 24.5, 24, 24.5, 25, 25 = 23-25(24.4); five adult females—wing, 72, 75, 74, 77, 76 = 72-77(74.8); tail, 44, 44, 45, 48, 50 = 44-50(46.2); exposed culmen, 24, 22.5, 24, 26, 22.5 = 22.5-26(23.8); four adults of undetermined sex—wing, 78, 74, 76, 75; tail 52, 47, 46, 46; exposed culmen, 23, 23, 23, 23. Measurements of *germanus* from Mts. Roraima (17) and Kukenam (6); eleven adult males—wing, 81, 82, 83, 82, 80, 80, 85, 83, 81, 80, 82 = 80-85(81.7); tail, 52, 51, 48, 51, 52, 48, 54, 52, 51, 49, 54 = 48-54(51.1); exposed culmen, 22, 21, 21, 21, 21, 21, 21, 20, 21, 21, 24 = 20-24(21.3); eight adult females—wing, 73, 71, 72, 75, 73, 72, 71, 70, 75, 76 = 70-76(72.8); tail, 47, 45, 43, 46, 46, 43, 45, 42, 42, 47 = 42-47(42.6); exposed culmen, 21.5, 20, 21, 21, 21, 21.5, 19, 19, 21, 22 = 19-21.5(20.7); two adults of undetermined sex—wing, 73, 82; tail, 48, 52; exposed culmen, 22, 23.

These measurements show that the bills of the Huachamacare males average 14.6 percent, and the females 15 percent, longer than those from Roraima-Kukenam; in the males the wings are 2.7 percent longer and the tail 7.4 percent, in the females the wings average 2.7 percent longer and the tails 8.5 percent.

The exposed culmen of nine males from Mt. Duida measure 21-26 (24.2), and of twelve females 20-25(22.7) so they are almost typical of the new subspecies, while six males from Mt. Yaví are intermediates measuring 21-25(23). The male from Mt. Guanay measures 26 mm., a maximum length.

The birds from the Gran Sabana mountains, Ptari-tepui (2♂, 20-22, 1♀, 22) Sororopán-tepui (1♀, 20.5) and Uaipán-tepui (1♂, 22; 1♀, 22) have the short bill of the topotypical *germanus* from Roraima and also those from Mt. Guaiquinima (3♂, 21-22(21.5); 8♀, 19-22(20.5)). From Mt. Auyan-tepui one specimen positively sexed as ♂ has a very long bill, 26, and the other specimen of undetermined sex has a short one, 20, but a series is needed for a positive determination; for the time being we refer this population to *germanus* geographically since the two races of southern Venezuela seem to occupy two distinct areas: *germanus* in the mountains of the Gran Sabana and Mt. Guaiquinima, and *rostratus* in the mountains of the Upper Orinoco region.

Specimens Examined

C. c. coruscans.—VENEZUELA: Villa Páez, Páramo de Tamá, 1♂, 1♀, 1(?); Bramón, 1♂; Queniquea, 1♂, 1♀; Boca de Monte, 3♂; Santa Cruz de Mora, 7♂, 5♀; Tabay, 9♂, 1(?); Valle, 6♂; Páramos: La Culata, 3♂, 1♀, Aricagua, 1♂, Santo Domingo, 5♂, 2♀, 1(?), Mucuches, 1♂, Cendé, 3♂, 3♀ and Misisí, 1♂; Timotes, 2♂; Cerro Niquitáz, 1♂; Cubiro, 7♂, 1(?); Colonia Tovar, 2♀; El Junquito, 1♂, 1(?); Pico de Naiguatá, 1♂; San José de Los Caracas, 1(?); Hda. Izcaragua, 3♂.

C. c. rostratus.—VENEZUELA: Cerro Huachamacare, 9♂ (incl.

type), 5 ♀, 4 (♂); Cerro Duida, 9 ♂¹, 10 ♀¹, 2 ♀; Cerro Yaví 5 ♂, 6 ♀, 2 (♂); Cerro Guanay, 1 ♂, 2 ♀.

C. c. germanus.—VENEZUELA: Cerro Roraima, 7 ♂, 6 ♀, 2 ♀¹; Cerro Kukenam, 4 ♂, 2 (♂); Cerro Ptari-tepui, 3 ♂, 1 ♀, 1 (♂); Cerro Sororopán-tepui, 1 ♀, 1 (♂); Cerro Uaipán-tepui, 1 ♂, 1 ♀, 2 (♂); Cerro Auyan-tepui¹, 1 ♂, 1 (♂); Cerro Guaiquinima, 3 ♂, 8 ♀, 4 (♂).

Xiphorhynchus picus deltanus, new subspecies

Type: From Misión Araguaimujo, Territorio Delta Amacuro, Venezuela; at sea level. No. 49727, Phelps Collection, Caracas, Venezuela. Adult male collected March 15, 1950, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from all races of *X. picus*, except *extimus* (Griscom) of Panamá and *duidae* (Zimmer) from the upper Orinoco River, by darker, more olivaceous brownish under parts; back darker than all races; bill, horn color darker than all races. Differs additionally from *X. p. picus* (Gmelin), closest geographically, by darker crown, more dusky, less brownish; more prominent whitish shaft streaks on mantle and rectrices darker, more dusky rufous. Differs additionally from *altirostris* (Léotaud) from Trinidad by shorter wing and bill and crown spots darker, more buffy.

Range: Known only from the Delta of the Orinoco River.

Description of Type: Top of head nearest to Raw Umber, with buffy white spots on forehead, and steaks on crown and nape; mantle Brussels Brown × Prout's Brown with a few very narrow long shaft streaks; uropygium Hay's Russet; lores dusky grayish; sides of head and neck dusky with buffy whitish markings; ear-coverts gray streaked with dusky. Chin buffy white; throat pale buffy, the feathers narrowly edged with dusky giving a squamulated appearance merging into the broadly ovate striped whiter breast feathers which are widely edged with dusky, more brownish olive on posterior breast; abdomen, sides and flanks Snuff Brown; paler posteriorly; under tail-coverts more rufous. Remiges Auburn; outermost primaries dusky except on inner webs basally; other primaries and outer secondaries progressively with less dusky; upper wing-coverts of a more brownish tint; bend of wing pale buffy; outer under wing-coverts Pale Vinaceous-Cinnamon, inner ones and axillaries nearer Pinkish Cinnamon. Tail Bay, under surface near Walnut Brown. Maxilla (in life) "black"; mandible "bone color"; feet "olive green"; iris "brown". Wing, 98 mm.; tail, 81 exposed culmen, 28; culmen from base, 30; tarsus, 22.

Remarks: Sexes alike. Size similar to *picus*. Range of measurements: seven adult males—wing, 90-101.5(94.9) mm.; tail (6), 74-81(76.8); culmen from base, 30-32(31.3); three adult females—wing, 91-96(93); tail 74-82(77.3); culmen from base, 29-31(30). Seven adult males of topotypical *picus* from French Guiana—wing, 93-102(97.6); tail, 75-91(80); culmen from base, 29-31(30). Measurements of *altirostris* (Lafresnaye Collection⁸) from Trinidad: one adult female (type)—wing, 107; tail, 79; culmen from base, 34; two specimens, *idem*, of undetermined sex—wing, 103, 111; tail, 81, 83; culmen from base, 31, 36.5. The bills of *altirostris* besides being longer are wider and deeper.

This and the following additional new subspecies from the Orinoco

Delta tend to confirm the decided endemism of the avifauna of this heavily forested region which is extensively inundated during the prolonged flood season of the Orinoco River. The actual Delta is approximately 60 kilometers long and 100 wide.

Specimens Examined

X. p. extimus.—PANAMA¹: Agua Dulce, 2♂ 2♀; Garachiné I., 1♂ 1♀.

X. p. dugandii.—COLOMBIA: Honda, 1♂¹.

X. p. picirostris.—VENEZUELA: Paraguaipoa, 2♂, 2♀; Río Socuy 7♂, 4♀, 1♀ juv., 2(?) ; Santa Cruz de Mara, 1♂, 1♀; Mene Grande, 2(?) ; Casigua, 1♂; Urumaco, 1♂; Dabajuro, 1♂, Curimagua, 1♂; Sabaneta, 1♂, 2♀; Península de Paraguaná, 9♂, 14♀; 3(?) ; Quebrada Arriba, 2♂, 1♀; Carora, 5♂, 5♀, 1(?) .

X. p. saturator.—VENEZUELA: Las Múcuras, 1♀; Santa Rosalía, 1♂; Villa del Rosario, 1♀; Machiques, 2♂, 1♂ juv.; La Sierra, 2♂; Santa Bárbara, 5♂, 2♀; La Fría, 3♂, 1♀, 1(?) ; Ureña, 3♂, 1♀; El Vigía, 5♂, 2♀, 1(?) .

X. p. choicus.—VENEZUELA: Tucacas, 1♂¹; Urama, 2♂, 1♀, 1(?) ; Puerto Cabello, 2♂, 5♀, 1(?) ; Borburata, Puerto Cabello, 1♂ (type); Carenero, 4♂, 1♀; Tacarigua de Mamporal, 1♂.

X. p. longirostris.—VENEZUELA: Isla de Margarita, 14♂, 1♂¹, 10♀, 2♀¹, 3(?) .

X. p. phalara.—VENEZUELA: Guanare, 1♀, 1(?) ; Acarigua, 1♂; Altagracia de Orituco, 2♂, 1♀, 1(?) ; Camaguán, 1♂ 2♀; El Amparo, 1♂, 1♀, 2(?) ; Guasualito, 7♂, 5♀, 5(?) ; San Fernando de Apure, 2♂, 4♀, 1(?) ; Cabruta, 2♂, 1♀, 1(?) ; Caicara, 5♂, 4♂¹, 5♀, 5♀¹ 1(?) ; Altagracia¹, 2♂, 3♀; Santa María de Ipire, 3♂, 1(?) ; Paria-guán, 1♂; Píritu, 1♂; 1♀; Barcelona, 2♂, 3♀, 1(?) ; Puerto de la Cruz, 2♀; Cumaná, 1♂, 5♂¹, 4♀¹; San Antonio del Golfo, 1♂, 2♀, 1(?) ; Carúpano, 1(?) .

X. p. altirostris.—TRINIDAD²: 1♀ (type), 2(?) .

X. p. picus.—VENEZUELA¹: Ciudad Bolívar, 1♂, 4♀; Agua Salada de Ciudad Bolívar, 1♂, 2♀; Barrancas, 2♂, 2♀, 2♀ juv. BRITISH GUIANA¹: Wakenaan I., 1♀. DUTCH GUIANA¹: Paramaribo, 4♂, 2♀. FRENCH GUIANA: Cayenne, 1♂, 5♂¹, 7♀¹; Approuage¹, 1♂, 1♀. BRAZIL: 141 (var. locs.)¹.

X. p. deltanus.—VENEZUELA: Misión Araguaimujo, 7♂, (incl. type), 3♀, 1(?) ; Sacupana, 1♀¹.

X. p. duidae.—VENEZUELA: Caño Cataniapo, 1♂, 2♀; Sanariapo, 1♂; Isla Ratón, 1♂; Munduapo, 1♀¹; San Fernando de Atabapo, 3♂, 1♀, 1(?) ; pica Yavita-Pimichín, 1♂, 1♀; Las Carmelitas, 2♀; San Juan de Manapiare, 3(?) ; Puerto Yapacana, 3♀; Esmeralda, 3♀; Sabana Grande, 1♂¹; Valle de los Monos¹, 1♂, 1♀; Caño León, 1♂¹.

X. p. bahiae.—BRAZIL: 30 (var. locs.)¹.

X. p. kienerii.—BRAZIL¹: Teffé, 3♂, 4♀.

X. p. peruvianus.—PERU¹: Santa Rosa, 6♂, 1♀; Sarayacu, 1♂.

Glyphorhynchus spirurus amacurensis, new subspecies

Type: From Jobure, Río Jobure, Territorio Delta Amacuro, Venezuela. No. 49749, Phelps Collection, Caracas, Venezuela. Adult male collected

March 8, 1950, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from all races of *G. spirurus*, except *G. s. spirurus* (Vieillot), by the grayish cast of the forehead; from *G. s. spirurus* differs in paler throat, more yellowish, less ochraceous, and under parts and crown more olivaceous, less brownish; back more brownish, less rufous.

Range: Known only from the Delta of the Orinoco River.

Description of Type: Top of head Raw Umber, forehead with a grayish cast; back Argus Brown; rump and upper tail-coverts Amber Brown; lores grayish, superciliary stripe buffy; auriculars dusky. Chin and throat Pale Orange-Yellow; breast Saccardo's Umber with prominent pale buffy euneate shaft spots, merging into the paler abdomen which has narrow faint whitish shaft stripes; under tail-coverts more rufous, also with faint shaft stripes. Wings fuscous; primaries and secondaries edged externally with olivaceous, the tertials more heavily so with more rufous; a broad buffy white band, medially, across the inner vanes of remiges except the three outermost; alula and exposed portion of upper wing-coverts Snuff Brown, an exposed dusky patch on tips of primary coverts; outer under wing-coverts brownish, inner ones white; axillaries whitish. Tail lighter than Auburn, duller on under surface. Bill (in life) "black, base brownish gray"; feet "brownish gray"; iris "dark". Wing, 71 mm.; tail, 69; culmen from base, 13; tarsus, 16.

Remarks: Sexes alike. Size similar to *spirurus*. Range of measurements: seven adult males—wing, 68-73(70.6) mm.; tail (4), 65-72(69); culmen from base, 12-13(12.8); two adult females—wing, 65-67(66); tail, 61-65(63); culmen from base, 13-13(13). Measurements of *spirurus* from Cayenne: five adult males—wing, 66-72(69.4); tail, 62-67(64.2); culmen from base, 13-15(14); six adult females—wing, 65-67(65.8); tail (5), 59-65(63); culmen from base, 13-14(13.4).

The color of the back, breast and abdomen of the population of *spirurus* inhabiting eastern Bolívar is partially intermediate between topotypical *spirurus* from Cayenne and the new subspecies but most of those specimens can be separated from *amacurensis* by the darker ochraceous throat.

Specimens Examined

*G. s. pectoralis*¹.—MEXICO: Tolosa, 1 ♂. GUATEMALA: 1 (♀).

G. s. sublestus.—COSTA RICA: 3[?]. PANAMA: 14[?]. COLUMBIA: 18[?]. ECUADOR: 10[?]. VENEZUELA: La Sierrita, Peripá, 1 ♂; La Fría, 2 ♂; Santo Domingo, 1 ♂; Santa Bárbara, Barinas, 1 ♀.

G. s. spirurus.—VENEZUELA: Cerros Roraima, 1 ♀; Uei-tepui, 1 ♂; Ptari-tepui, 1 ♂, 1 ♀; Chimantá-tepui, 1 ♂, 1 (♀) Uaipán-tepui, 2 ♂, 2 (♀); Aprada-tepui, 3 ♂, 1 ♀; Auyan-tepui, 3 ♂, 1 ♀; Kabanayén, 3 ♂, 1 (♀); Boca Caño Pácara, 1 ♂; Campo Urimán, 1 (♀); Carabobo, Río Cuyuni, 4 ♂¹, 1 ♀, 1 (♀); Camborere, 4 ♂, 1 (♀); Nuria, 9 ♂, 5 ♀, 2 (♀). BRITISH GUIANA: 28[?], Paruima Mission, 1 ♀. FRENCH GUIANA¹: Ipousin, 7 ♂, 5 ♀; Roche Marie, 1 ♂; Cayenne, 1 ♂, 1 ♀. BRAZIL: 14[?].

G. s. amacurensis.—VENEZUELA: Jobure, 7 ♂ (incl. type), 2 ♀, 5 (♀); San Francisco de Guayo, 2 (♀).

¹Specimens in the American Museum of Natural History. For localities see Zimmer, Am. Mus. Nov., No. 757, pp. 6, 7, Nov. 30, 1934.

G. s. rufigularis.—VENEZUELA: La Faisca, Cerro Paurai-tepui, 7 ♂, 3 ♀, 4 (?); La Candelaria, 1 ♀; El Polaco, 1 ♂; Salto Arebuchi, 1 ♂; Río Icabarú, 1 ♂; Cerro Guaiquinima, 4 ♂, 1 ♀, 3 (?); Salto Guaiquinima, 6 ♂, 2 ♀; Río Carún, 1 ♀; Salto María Espuma, 1 ♀, 1 (?); Salto Maisa, 3 ♂, 2 (?); Río Tonoro, 1 ♀, 1 (?); Cerro Tigre, 1 (?); Río Mato, Río Caura, 1 ♂, 9 ♀; Salto Pará, 4 ♂, 1 ♀, 1 (?); Boca Chanaro, 1 ♀; Río Mauo, 1 ♂; Maniña, 1 ♂, 3 ♀, 1 (?); Sarariña, 1 ♂; Sabana Canaracuni, 2 ♂; Cerro El Negro, Río Cuchivero, 3 ♂; Santa Rosalía, 3 ♂; Caño Cataniapo, 4 ♂, 2 ♀, 3 (?); Sanariapo, 1 ♂; Caño Cuao, 1 (?); San Fernando de Atabapo, 1 ♂, 1 ♀; Pica Yavita-Pimichín, 8 ♂, 3 (?); Las Carmelitas, 7 ♂, 1 ♀, 4 (?); Kabadisocaña, 2 ♀; Chajuraña, 1 ♂, 1 ♀, 1 (?); Puerto Yapacana, 1 ♂, 2 (?); Alto Río Asisa, 4 ♂, 2 (?); Cerro Parú, 1 ♂; San Carlos, 1 (?); El Carmen, 2 ♂, 1 ♀; nacientes Río Siapa, 1 ♂. BRASIL: 47⁷; Boca Río Castanho, Río Padauri, 1 ♀; Base Canoas, Río Castanho, 1 ♂. ECUADOR: 7⁷.

*G. s. castelnaudi*⁷.—PERU: 39. ECUADOR: 8. BRAZIL: 17.

G. s. albigularis.—BOLIVIA: 2⁷.

G. s. inornatus.—BRAZIL 10⁷.

G. s. cuneatus.—BRAZIL: 31⁷.

Myrmotherula behni camanii, new subspecies

Type: From Cerro Camani, Territorio Amazonas, Venezuela; 1250 meters. No. 52367, Phelps Collection, Caracas, Venezuela. Adult female collected February 15, 1951, by Ramón Urbano. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from the females of *M. b. inornata* Sclater and *M. b. yavii* Zimmer and Phelps by pale olivaceous upper parts instead of rufous brown; under parts more olivaceous, less brownish. The male differs from *yavii* in paler gray upper parts and the crown uniform with the back without the blackish tips to the feathers.

Range: Known only by a male and a female from Mt. Camani near the upper Manapiare River, an affluent of the Ventuari, in the Sub-tropical Zone (1250 m.).

Description of Type: Top of head Light Brownish Olive, merging into the Medal Bronze of back and uropygium; lores grayish; sides of head grayish olive. Chin and throat whitish; breast, sides and abdomen Deep Olive Buff, merging into the Dark Olive Buff of flanks; under tail-coverts Tawny-Olive. Wings Benzo Brown; primaries and secondaries edged outwardly with grayish brown; tertials and upper wing-coverts heavily edged with Argus Brown; remiges narrowly edged on inner webs, basally, with buffy white. Tail Benzo Brown, the rectrices heavily edged outwardly with Argus Brown. Bill (in life) 'black, base of mandible brownish flesh'; feet 'brownish gray'; iris 'dark'. Wing 54 mm.; tail, 37; culmen from base, 14; tarsus, 16.

Remarks: Sexes different in color. Size similar to *yavii*. Measurements of the adult male from Cerro Camani: wing, 58 mm.; tail, 36; culmen from base, 15; tarsus, 15.

The unique male differs from *yavii* as in diagnosis. Measurements: wing, 58; tail, 38; culmen from base, 15; tarsus, 16.

Specimens Examined

M. b. inornata.—VENEZUELA: Arabupu, Cerro Roraima, 1♂, 1♂ juv., 1♀.

M. b. yavii.—VENEZUELA: Cerro Yaví, 1♂, 1♂ juv., 2♀; Cerro El Negro, alto Río Cuchivero, 1♂; Cerro Parú, 1♂.

M. b. camanii.—VENEZUELA: Cerro Camani, 1♂, 1♀ (type).

Pipromorpha oleaginea dorsalis, new subspecies

Type: From Cerro Roraima, Gran Sabana, Estado Bolívar, Venezuela; 1840 meters. No. 50356, Phelps Collection, Caracas, Venezuela. Adult of undetermined sex collected February 8, 1950, by Manuel Castro. (Type on deposit at the American Museum of Natural History.)

Diagnosis: Differs from all forms of *P. oleaginea* by darker green upper parts, less yellowish tint; differs additionally from *P. o. intensa* Zimmer and Phelps from southeastern Bolívar, by paler abdomen and gray, less yellowish tint on throat and breast.

Range: Known only by the type from Mt. Roraima, in the Subtropical Zone, at 1840 meters.

Description of Type: Top of head, back and rump Olive-Green, merging into the Warbler Green of upper tail-coverts; sides of head more grayish. Throat grayish olive merging into the more brownish of breast and sides, which merges into the Honey Yellow of abdomen, flanks and under tail-coverts. Wings Clove Brown; remiges, except outermost, narrowly edged externally with olivaceous, tertials more widely so and whitish; greater and lesser wing-coverts edged and tipped with buffy olive forming two indistinct bands; bend of wing Chamois; under wing-coverts and axillaries darker than Ochraceous-Buff; inner webs of remiges with pale buffy edgings except terminally. Tail Olive-Brown, the rectrices edged externally with Warbler Green. Maxilla (in life) "black"; mandible (in dried skin) flesh with black tip; feet (in life) "dark gray"; iris "brown". Wing, 63 mm.; tail, 46; culmen from base, 13.5; tarsus, 16.

Remarks: Size similar to *P. o. intensa*. Measurements of five adult males of *intensa*: wing, 63-66(63.8) mm.; tail, 48.5-50(49.3); culmen from base, 13-14(13.2).

This must be an extremely rare species on Mt. Roraima where many expeditions have hitherto failed to collect it. The other subspecies in Venezuela are of the Tropical Zone.

Specimens Examined

P. o. oleaginea.—BRAZIL⁸: 1.

P. o. chloronota.—BOLIVIA⁸: 3. BRAZIL: 42⁸; Rio Castanho, Rio Padauri, 1♂. COLOMBIA⁸: 13. VENEZUELA: 44⁸; El Carmen, Río Negro, 2♂, 3(?) ; San Carlos 1(?) ; Cerro Yapacana, 2♂, 2♀, 2(?) ; Sabana, Alto Río Asisa, 3♂, 1♀, 1(?) ; Las Carmelitas, 1♂, 1(?) ; Caño Cuao, 1♂; Sanariapo, 1♂; Caño Cataniapo, 3♂; Raudal Alto, Río Cuchivero, 1♂; Santa Rosalía, 1♂, 1♀, 2(?) ; Puerto Carretico, Río

⁸Specimens in the American Museum of Natural History. For localities see Zimmerman, Am. Mus. Nov., No. 1126, pp. 13, 14, 1941.

⁹*idem*. For list of localities see Zimmer and Phelps, Am. Mus. Nov., No. 1312, p. 17, 1946.

Mato, 2♂, 1♀; Barinitas, 1♀; Ciudad Bolivia, 2♂, 1♀; Santa Bárbara, 1(♀); Santo Domingo, 1♂, 2♀.

P. o. hauxwelli^s.—ECUADOR: 28. PERU: 10.

P. o. maymana.—PERU: 19.

P. o. pacifica.—ECUADOR: 17.

P. o. wallacet^s.—BRAZIL: 46. FRENCH GUIANA: 2. DUTCH GUIANA: 8. BRITISH GUIANA: 6.

P. o. dorsalis.—VENEZUELA: Cerro Roraima, 1(♀) (type).

P. o. intensa.—VENEZUELA: Carabobo, Río Cuyuni, 2(♀); Camborere, 1♂; Cerro Chimantá-tepui, 1(♀); Caño Pácara, Río Caroní 1(♀); Urimán, 1♂, 1♀; Campamento Comején, Cerro Guaiquinima, 2♂; Salto Maria Espuma 2♂, 2(♀); Salto Maisa, 3♂ (incl. type), 2♀, 3(♀); Salto El Payaso, 1♀, 1(♀); Raudal Capuri, 1♀, 1(♀); Raudal Caranca, 1(♀); Río Arawa, Alto Caura 1♂; Sabana Canaracuni, 1♂, 1♀; Chajurafía, Alto Ventuari, 1(♀). BRITISH GUIANA: Paruima Mission, Río Kamarang, 1♀.

P. o. pallidiventris.—VENEZUELA: 28^s; Cristóbal Colón, 1♂; Cerro Azul, 1♀; Yaguaraparo, 1♂, 1♀; Tunapui, 1♂; El Pilar, 1♂, 2(♀); Quebrada Bonita, 1♀, 1(♀); Los Altos, 4♂, 1(♀); Bergantín, 1♂; Misión Araguaimujo, Delta del Orinoco, 1(♀); Caño Dabomana, 1(♀); Jobure, 3♂. TRINIDAD: 14. TOBAGO: 1.

P. o. parca.—VENEZUELA: La Fría, 3♂, 1(♀); El Vigía, 2♂, 2♀; La Sierra, Perijá, 2♂, 1(♀); La Sabana, 1♂. COLOMBIA: 40. PANAMA: 13.

P. o. lutescens.—PANAMA: 27.

P. o. dyscola.—PANAMA: 24.

P. o. assimilis^s.—COSTA RICA: 10. NICARAGUA: 14. GUATEMALA: 53. MEXICO: 4.

*List of Localities*

- | | | | |
|-----|-------------------------------|-----|-------------------|
| 31 | Acarigua | 64 | Azul, Cerro |
| 75 | Agua Salada de Ciudad Bolívar | 54 | Barcelona |
| 115 | Altigracia | 27 | Barinitas |
| 50 | Altigracia de Orituco | 69 | Barrancas |
| 27 | Altamira (Barinas) | 55 | Bergantín |
| 118 | Alto, Raudal | 14 | Boca de Monte |
| 90 | Aprada-tepui, Cerro | 44 | Borburata |
| 83 | Arabupú | 12 | Bramón |
| 70 | Araguaimujo, Misión | 116 | Cabruta |
| 104 | Arawa, Río | 117 | Caicara (Bolívar) |
| 87 | Arebuchi, Salto | 65 | Camaguán |
| 22 | Aricagua, Páramo | 122 | Camani, Cerro |
| 126 | Asisa, Alto Río | 80 | Camborere |
| 93 | Auyan-tepui, Cerro | 99 | Canaracuni |
| | | 94 | Capuri, Raudal |

79	Carabobo	18	Guasualito
95	Caranca, Raudal	130	Huachamacare, Cerro
52	Carenero	86	Icabarú, Río
109	Caroní, Río	48	Izcaragua, Hacienda
35	Carora	73	Jobure
112	Carretico, Puerto	73	Jobure, Río
95	Carún, Río	102	Kabadisocaña
61	Carúpano	81	Kabanayén
36	Casigua	83	Kukenám, Cerro
134	Casiquiare, Caño	85	La Candelaria, Mina
136	Castanho, Río (Brazil)	24	La Culata, Páramo
144	Cataniapo, Caño	85	La Faisea, Mina
111	Caura, Río	10	La Fría
32	Cendé, Páramo	108	La Paragua
103	Chajuraña	7	La Sabana
105	Chanaro, Boca Río	7	La Sierra
88	Chimantá-tepui, Cerro	128	Las Carmelitas
75	Ciudad Bolívar	4	Las Múcuras
25	Ciudad Bolivia	44	Las Quiguas
46	Colonia Tovar	133	León, Caño
106	Comején, Campamento	56	Los Altos
21	Conejos, Páramo	6	Machiques
129	Corocoro, Isla	143	Maipures (Colombia)
64	Cristóbal Colón	96	Maisa, Salto
142	Cuaó, Caño	121	Manapiare, Río
113	Cuchivero, Río	100	Maniña
58	Cumaná	8	Maracaibo, Lago
132	Cunucunuma, Río	60	Margarita, Isla de
74	Curiapo	97	María Espuma, Salto
40	Curimagua	112	Mato, Río
78	Cuyuni, Río	98	Mauo, Río
37	Dabajuro	33	Mene Grande
72	Dabomana, Caño	23	Mérida
131	Duida, Cerro	29	Misisí, Páramo
17	El Amparo	23	Mantañas
137	El Carmen	26	Mucuchíes, Páramo
46	El Junquito	141	Munduapo
118	El Negro, Cerro	47	Naiguatá, Pico de
76	El Palmar	123	Negro, Caño
94	El Payaso, Salto	50	Negro, Cerro (Miranda)
62	El Pilar	32	Niquitáz, Cerro
85	El Polaco, Mina	77	Nuria
20	El Vigía	89	Pácara, Boca Caño
133	Esmeralda	134	Pacila, Río
49	Golfo Triste, Cerro	110	Pará, Salto
82	Gran Sabana	41	Paraguaná, Península de
106	Guaiquinima, Cerro	108	Paragua, Río
106	Guaiquinima, Salto	1	Paraguaipoa
30	Guanare	68	Pariaguán
124	Guanay, Cerro	127	Parú, Cerro
62	Guaraunos	125	Parú, Río
48	Guarenas	119	Parucito, Caño

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|-----|-----------------------------------|-----|-------------------------|
| 85 | Paurai-tepui, Cerro | 5 | Santa Rosalía (Zulia) |
| 53 | Píritu | 13 | Santo Domingo (Táchira) |
| 81 | Ptari-tepui, Cerro | 101 | Sarariña |
| 44 | Puerto Cabello | 135 | Siapa, nacientes Río |
| 56 | Puerto de la Cruz | 2 | Socuy, Río |
| 34 | Quebrada Arriba | 81 | Sororopán-tepui, Cerro |
| 57 | Quebrada Bonita | 23 | Tabay |
| 15 | Queniquea | 51 | Tacarigua de Mamporal |
| 45 | Rancho Grande | 12 | Tamá, Páramo |
| 143 | Ratón, Isla | 108 | Tigre, Cerro |
| 83 | Roraima, Cerro | 28 | Timotes |
| 126 | Sabana (Río Asisa) | 76 | Tomasote, Cerro |
| 133 | Sabana Grande | 107 | Tonoro, Río |
| 39 | Sabaneta | 42 | Tucacas |
| 71 | Sacupana | 62 | Tunapui |
| 59 | San Antonio del Golfo | 92 | Uaipán-tepui, Cerro |
| 138 | San Carlos (Amazonas) | 84 | Uei-tepui, Cerro |
| 66 | San Fernando de Apure | 43 | Urama |
| 140 | San Fernando de Atabapo | 11 | Ureña |
| 72 | San Francisco de Guayo,
Misión | 91 | Urimán, Campo |
| 23 | San Jacinto | 38 | Urumaco |
| 48 | San José de Los Caracas | 24 | Valle |
| 121 | San Juan de Manapiare | 133 | Valle de los Monos |
| 143 | Sanariapo | 128 | Ventuari, Río |
| 9 | Santa Bárbara (Zulia) | 12 | Villa Páez |
| 16 | Santa Bárbara (Barinas) | 4 | Villa del Rosario |
| 3 | Santa Cruz de Mara | 63 | Yaguaraparo |
| 19 | Santa Cruz de Mora | 129 | Yapacana, Cerro |
| 67 | Santa María de Ipire | 129 | Yapacana, Puerto |
| 114 | Santa Rosalía (Bolívar) | 120 | Yaví, Cerro |
| | | 139 | Yavita-Pimichín, Pica |