

or ten minutes or delay for a half-hour. When finally appearing, whether soon or late, she does not indulge in any preliminary hopping or perching in near-by bushes or in the nest-bush itself, but flies straight to the nest and goes on in a twinkling. She often flies through the shrubbery unseen, appearing suddenly and unexpectedly at the nest, and going on the eggs like a flash. But she will frequently leave the eggs again after remaining on but a minute or two, returning after a brief interval for another short stay, and so continuing restless and nervous as long as the intruder remains in the neighborhood.

ON A COLLECTION OF BIRDS MADE BY W. W.
BROWN, JR., AT DAVID AND DIVALA, CHIRIQUI.

BY OUTRAM BANGS.

MR. W. W. BROWN, JR., has lately sent to my brother and me 1183 bird skins, the result of about 58 days collecting during the whole of the month of November and parts of October and December, 1900, at David and Divala, two towns, about thirty miles apart, situated in the heavily forested lowlands of Chiriqui. The birds were all taken in the cool tropical forest or on the plantations at about 200 feet above sea level. This splendid collection contains six forms that appear to be new, and some of the other birds belong to species exceedingly rare or altogether wanting in American Museums, so that it seems worth while to publish the following complete list of the lot.

Though he was entirely without assistance, Mr. Brown sent home, beside this large collection of birds, many mammals, and the result shows with what energy he worked in the unhealthy, tropical climate of this fever-stricken region. At David and Divala, Mr. Brown tells me, there is a great difference between the temperatures in the daytime and at night. The days are excessively hot and the nights cool. In the deep forest, however, under the shade of the red rubber tree and the gigantic Spanish

cedar, where the atmosphere is laden with moisture, the air is always cool and damp.

To the student of American birds the ornithology of Chiriqui is of exceptional interest, containing many forms peculiarly its own, and different from the representative form from either north of it—in Central America proper—or south of it, in Panama. Some years ago Arcé made extensive collections of birds in Chiriqui and from the results of his work many of the peculiar forms of the region were made known by Messrs. Salvin and Godman and others; but still more remain to be described. Most of Arcé's material, which is of very poor quality, went to England and American collections are badly off for birds from the Chiriqui region. The following list fills many a gap in the joint series of American birds that the various collections of this country could produce if all were brought together.

I am under the greatest obligation to the authorities of the United States National Museum for allowing me unrestricted use of the collection of birds there, while I was in Washington identifying many of the species in the present collection, and to both Dr. Robert Ridgway and Dr. C. W. Richmond for their unflinching kindness and wise counsel.

Tinamus castaneiceps Salvadori.—Seven specimens, both sexes, taken at Divala, in November and December. The type locality of this species is Volcan de Chiriqui.

Crypturus soui modestus (Cab.).—Three specimens, both sexes, Divala, November and December. These are extreme examples of this race, with dark grayish throat and a conspicuous dark band across the breast.

Penelope cristata (Linn.).—One adult ♂, Divala, December 8.

Ortalis cinereiceps (Gray).—One adult ♂, Divala, December 14.

***Odontophorus castigatus*,¹ sp. nov.**

Seven specimens, both sexes, one young, Divala, November and December.

Type.—Divala, Chiriqui, adult ♂, No. 7642, Coll. of E. A. and O. Bangs. Collected Dec. 8, 1900, by W. W. Brown, Jr.

Characters.—Nearest to *O. marmoratus* Gould; colors deeper, more olivaceous, less grayish, throughout; crest and top of head dark brown instead of light chestnut; throat and upper breast much darker, less grayish; hind neck and upper back dark olivaceous brown instead of grayish.

¹ *Castigatus*, shut in, confined within small limits.

Color. — Adults, sexes alike; narrow frontal band, narrow band below eye and chin chestnut; top of head dark sepia, gradually becoming blackish on the long feathers of the crest; hind neck and upper back dark olive-brown slightly vermiculated with a paler, grayer shade of the same color; lower back and rump bistre, gradually darkening on upper tail-coverts to olive, somewhat irregularly marked throughout with small dusky and tawny-olive spots; scapulars and tertials much varied, grayish near shafts, and blotched and marked with blackish, olive, and rich reddish olive, the longer feathers with conspicuous tawny-olive tips; primaries dark hair-brown, notched and marked on outer webs with buff; secondaries hair-brown marked and barred on outer web with dull yellowish brown; all the smaller wing-coverts are hair-brown, marked on both webs with dull yellowish brown and with small whitish terminal and dusky subterminal spots; whole inside of wing hair-brown; throat olive slightly speckled with whitish toward chin; breast bistre, the feathers slightly barred with dusky and yellowish; belly, flanks, and sides paler than breast and with a grayish cast in middle of belly, the feathers more varied with dusky and yellowish markings; under tail-coverts olive slightly marked and spotted with dull yellowish and dusky; tail dark olive, thickly vermiculated and speckled with dull yellowish brown; "bill and feet black; bare skin round eye bright red."¹

Young similar to adults, except top of head and crest rather more rusty and bill reddish instead of black.

Measurements (in millimeters).

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7642	Type	♂ ad.	148.	71	42.	18.
7643	Topotype	♂ ad.	145.	70.	40.	18.
7644	"	♀ ad.	141.	67.	41.	18.
7645	"	♀ ad.	145.	66.	41.	17.5

Remarks. — In the national Museum Collection are examples of *O. marmoratus* from the Bogota region (the type locality of the species) and from Panama, which do not appear to differ in any way, but all Chiriqui examples (the present series, and one specimen in National Museum collected by Arcé) are very much darker in color and otherwise different, and represent quite a distinct form. There are many other cases among the birds of this region of a species ranging from Bogota to Panama without change, but in Chiriqui being replaced by a different, representative form.

¹ Note made by Mr. Brown from the fresh specimens.

- Columba rufina* Temm. & Knip. — One adult ♀, Divala, December 16.
Columba nigrirostris Scl. — Two males, Divala, November 4 and December 12.
Zenaidura macroura (Linn.). — Three females, Divala, November.
Columbigallina rufipennis (Bp.). — Two specimens, ♂ and ♀, Divala, December.
Claravis pretiosa (Ferrari-Perez). — One adult ♂, Divala, December 15.
Leptotila verreauxi Bp. — Three specimens, both sexes, Divala, November and December.
Leptotila rufinucha Scl. & Salv. — Two specimens, ♂ and ♀, Divala, December.
Geotrygon montana (Linn.). — One ♂, Divala, November 26.
Aramides cayanae chiricote (Hartl.). — Two specimens, ♂ and ♀, Divala, November.
Oxyechus vociferus (Linn.). — Three specimens, both sexes, Divala, November and December.
Bartramia longicauda (Bechst.). — One ♀, Divala, November 30.
Asarcia variabilis (Linn.). — Two adult males, Divala, December.
Dendrocygna discolor Scl. & Salv. — Two specimens, ♂ and ♀, Divala, December. Neither of these is quite in fully adult plumage, but both belong to the South American species, which thus extends to Chiriqui.
Spatula clypeata (Linn.). — One ♀, David, October 16.
Ibycter americanus (Bodd.). — One adult ♀, Divala, December 8.
Micrastur zonothorax (Cab.). — One adult ♀, Divala, December 12. Dr. Ridgway is of opinion that this specimen is best referred here. It, however, may not be typical of the South American species. Unfortunately the bird is so very rare that there is not a specimen in the National Museum, and I believe not one in this country.
Geranospizias niger (Du Bus). — One adult ♂, Divala, November 24.
Rupornis ruficauda (Scl. & Salv.). — Two adult females, Divala, November.
Cerchneis sparveria (Linn.). — Three males, Divala, November.
Megascops brasiliensis (Gmel.). — One adult ♂, Divala, December 11.
Megascops vermiculatus Ridgw. — One adult ♂, Divala, December 8.
M. brasiliensis has a very extensive range, throughout which it does not vary, and in many places, as here, another species of much more local distribution occurs with it.
Lophotrix stricklandi (Scl. & Salv.). — One adult ♀, Divala, December 11.
Ciccaba nigrolineata (Scl.). — Two adult females, Divala, December.
Speotyto cunicularia hypogæa (Bp.). — One adult ♀, Divala, December 13.
Ara macao (Linn.). — One adult ♂, Divala, December 1.
Conurus finschi Salv. — Two specimens, ♂ and ♀, Divala, December.

The type locality of the species is Bugaba, Chiriqui. These two examples are probably young. They agree in every way with the description of the adult except in having green instead of red foreheads.

Conurus ocularis *Scl. & Salv.*—Twelve specimens, both sexes, Divala and David, October, November and December.

Brotogerys jugularis (*Müll.*).—Thirty-four specimens, both sexes, Divala and David, October, November and December.

Amazona virenticeps *Salvadori.*—Two specimens, ♂ and ♀, Divala, December 16.

Amazona panamensis *Cab.*—One adult ♂, Divala, December 3.

Amazona salvini *Salvadori.*—Five specimens, both sexes, Divala, November and December.

Pionus menstruus rubrigularis (*Cab.*).—Eight specimens, both sexes, Divala and David, October and December.

Pionopsittacus hæmatotis *Scl. & Salv.*—Eight specimens, both sexes, November and December.

Ceryle torquata (*Linn.*).—Three specimens, both sexes, Divala, November and December.

Ceryle amazona (*Lath.*).—Two males, Divala, December.

Ceryle americana septentrionalis *Sharpe.*—Seven specimens, both sexes, Divala, October, November and December.

Ceryle superciliosa stictoptera *Ridg.*—One (♀ ?), Divala, December 15. This bird is typical *stictoptera*, those collected by Mr. Brown in Panama do not approach it in the least, but are true *superciliosa*.

Momotus lessoni *Less.*—Twenty-seven specimens, both sexes, Divala and David, October and November.

Nyctidromus albicollis (*Gmel.*).—Four specimens, both sexes, Divala, November and December.

Antrostomus carolinensis (*Gmel.*).—Two females, Divala, November and December.

Phaethornis longirostris (*Less. & Delattre*).—Two males, Divala, November and December. These are much darker below than is usual in true *P. longirostris* of Guatemala or in examples from Panama, which seem to be about the same as Guatemalan specimens. They probably represent a local race worth recognizing by name, but I prefer to wait for more specimens before deciding this point.

Florisuga mellivora (*Linn.*).—One ♀, Divala, December 6.

Agyrtria decora (*Salv.*).—Seven specimens, both sexes, Divala, November.

This very local species is exceedingly rare in collections. All the specimens taken were in autumnal or young plumage, the males having some blue feathers in the throat, but the throat patch not well defined.

Amizilis fuscicaudata (*Fraser*).—Two males, Divala, November.

Hylocharis elicizæ (*Bourc. & Muls.*).—Three males, Divala, November and December.

Chlorostilbon assimilis *Lawr.*—Two males, young and adult, Divala, November 12.

Thalurania columbica venusta (Gould).— One adult ♂, Divala, December 13.

The type locality of the subspecies is Volcan de Chiriqui, and the form extends from Chiriqui to Costa Rica. I have examined many specimens from the latter country, and an enormous series of true *T. columbica* from various places in Colombia. *T. columbica venusta* is a perfectly valid form; the adult ♂ can always be told from the adult ♂ of true *T. columbica* by its wholly purple interscapulum, and wholly black back of head.

Floricola superba pallidiceps (Gould).— One adult ♂, Divala, November 10.

Trogon massena Gould.— Nine specimens, both sexes, Divala, November and December.

Trogon bairdi Lawr.— Twelve specimens, both sexes, Divala, November and December.

Trogon atricollis tenellus (Cab.).— Nine specimens, both sexes, Divala, November and December.

Trogon caligatus Gould.— One ♂, Divala, December 5.

Piaya cayana thermophila (Scl.).— Three specimens, both sexes, Divala, October and November.

Diplopterus nævius (Linn.).— Three males, Divala, November and December.

Crotophaga ani Linn.— Five specimens, both sexes, Divala, December.

Rhamphastos tocard Vieill.— Two specimens, ♂ and ♀, Divala and David, October and November.

Peteroglossus frantzii Cab.— Five specimens, both sexes, Divala and David, October and November.

Galbula melanogenia Scl.— Thirty-four specimens, both sexes, Divala and David, October, November and December.

Bucco dysoni Scl.— One adult ♂, Divala, November 19.

Malacoptila panamensis Lafr.— Twenty specimens, both sexes, Divala, November and December.

Melanerpes chrysauchen Salv.— Three males, Divala, November. The type locality of the species is Bugaba, Chiriqui.

Melanerpes wagleri Salv. & Godm.— Eleven specimens, both sexes, Divala and David, October, November and December.

Veniliornis ceciliæ (Malh.).— One ♀, Divala, November 9.

Campophilus guatemalensis buxans,¹ subsp. nov.

Two adults, ♂ and ♀. Divala, November.

Type.— Divala, Chiriqui, adult ♂, No. 7803, Coll. of E. A. & O. Bangs. Collected Nov. 26, 1900, by W. W. Brown, Jr.

Characters.— A southern form of *C. guatemalensis*, distinguished by smaller size; deeper yellow under side of wing; much more yellowish,

¹ *Buxans*, of the color of boxwood.

less whitish underparts; the black bands on underparts all narrower and less well marked; the black of under side of neck more restricted — not reaching so far over breast; and the light colored stripes on sides of neck yellower — less purely white — and more restricted.

Color. — Adult ♂, head all round crimson, a small brownish patch just over opening of ear; upper parts dull brownish black; two narrow yellowish white stripes, extending from the red of head down sides of neck to end of interscapulum; jugulum black; lower breast and rest of under parts buff-yellow, crossed by numerous black bands, which become less well marked on middle of belly; lining of wing and whole under surface of wing feathers, except the ends which are blackish, strong yellow (a shade about between maize yellow and buff yellow); bend of wing slightly touched with red; under side of tail and outer edges of primaries olive.

Adult ♀, similar to male, but throat black, and a large black patch on top of head, which usually includes much of the crest; no red on bend of wing.

Measurements (in millimeters).

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7803	Type	♂ ad.	187.	113.	35.	48.5
7804	Topotype	♀ ad.	187.	114.	35.5	47.5

Remarks. — The Guatemalan Ivory-bill as it ranges southward gradually becomes smaller, with lighter bill, and darker, more yellowish, less whitish, underparts and under side of wing. The two examples in the present collection are from farther south than any other specimens I have seen and represent the form *C. guatemalensis buxans* in its extreme. The northern extreme — true *C. guatemalensis* — occurs in southern Mexico, Guatemala, etc., and to this form all of the various names that have been given to the species seem to apply. As has been said before, it is a larger bird with more black on under side of neck and breast, heavier black bands crossing lower breast, belly etc., and whitish or yellowish white under side of wings and ground color of under parts.

Picumnus granadensis Lafr. — One adult ♂, Divala, November 16.

Colopterus pilaris Cab. — One adult ♀, David, October 15.

Todirostrum cinereum (Linn.) — Three specimens, both sexes, Divala and David, October and November.

Platyrhynchus superciliaris Lawr. — One adult ♀, Divala, November 20. The type locality of this species is Panama.

Mionectes assimilis dyscolus,¹ subsp. nov.

Six specimens, both sexes, Divala, October, November and December.

Type.—Divala, Chiriqui, adult ♀, No. 7958, Coll. of E. A. & O. Bangs. Collected Dec. 6, 1900, by W. W. Brown, Jr.

Characters.—Slightly smaller than true *M. assimilis*; bill smaller; throat less gray; color of underparts more greenish, less buff.

Colors.—Sexes alike; whole upper parts, including edges of wing feathers and upper surface of tail, olive-green; no wing bars (at least in the adult plumage); tertials tipped with pale oil green; chin greenish gray gradually becoming dull olive-green on breast; middle of belly and under tail-coverts buffy olive-yellow; sides and flanks darker, more shaded with olive-green; bend of wing olive-yellow; lining of wing buff-yellow; wing feathers, except the outer margins, dusky; bill (in dried specimens) blackish, basal part of lower mandible paler-horn color.

Measurements (in millimeters).

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7958	Type	♀ ad.	61.	48.	15.2	13.8
7957	Topotype	♀ ad.	59.	45.	15.	13.2
7959	"	♂ ad.	61.5	48.5	15.4	13.2
7960	"	♂ ad.	59.	44.	15.	13.4
7961	"	♂ ad.	62.	49.	15.	—

Remarks.—I have already expressed my belief that *Mionectes oleagineus* and *M. assimilis* are distinct species. The more specimens I examine the more convinced am I that this is so. True *M. oleagineus* of northern South America is a very different bird from true *M. assimilis* of southern Mexico and Guatemala, and the two forms that come from regions nearest together—*M. oleagineus parvus* of Panama, and *M. assimilis dyscolus* of Chiriqui—show no sign of intergrading, but are quite as distinct as are the two typical forms.

Ornithion pusillum (Cab. & Heine).—One ♂, Divala, November 7.

Tyranniscus parvus Lawr.—Two specimens, ♂ and ♀, Divala, November.

Tyrannulus reguloides Ridgw.—One adult ♀, Divala, November 20. This specimen agrees exactly with the type of *T. reguloides*, from the lower Amazon and is very different from *T. elatus* of Guiana and Colombia. It is rather strange that the Chiriqui bird should prove to belong

¹ *Dyscolus*, of a bad temper, peevish.

here, and this fact would seem to indicate that *T. reguloides* is a coastal form extending from the lower Amazon to Chiriqui, being replaced farther inland along its range by *T. elatus*. The specimen measures: wing, 47; tail, 39; tarsus, 12; culmen, 6.4 mm.

Elænia pagana subpagana *Scl. & Salv.*—Ten specimens, both sexes, Divala and David, October and November.

Sublegatus arenarum (*Salv.*).—One ♂, David, October 19.

Myiozetetes similis superciliosus (*Bp.*).—Nineteen specimens, both sexes, Divala and David, October, November and December.

Myiozetetes granadensis *Lawr.*—One ♀, Divala, December 15.

Rhynchocyclus æquinoctialis (*Scl.*).—One ♀, Divala, December 8.

Myiodynastes audax nobilis *Scl.*—Two specimens, ♂ and ♀, Divala, December.

Megarhynchus pitangua (*Linn.*).—Two males, Divala, October and November.

Myiobius sulphureipygius (*Scl.*).—Three specimens, both sexes, Divala, November and December.

Myiobius erythrurus (*Cab.*).—Three specimens, both sexes, Divala, November and December.

Empidonax flaviventris *Baird.*—One male, Divala, November 30.

Empidonax trailli (*Aud.*).—Three males, Divala, October and November.

Empidonax minimus *Baird.*—One ♂, David, October 16.

Horizopus richardsonii (*Swains.*).—Two specimens, ♂ and ♀, Divala, November 4, David, October 16.

Myiarchus panamensis *Lawr.*—Nine specimens, both sexes, Divala and David, October and November.

Myiarchus crinitus (*Linn.*).—Six specimens, both sexes, Divala, November and December. These, like all other birds taken in winter in Central America that I have seen, belong to the small billed northern form, I called *boreus*. The large billed, smaller race, true *M. crinitus*, of Florida, Georgia, etc., probably does not go so far south to spend the winter.

Tyrannus melancholicus satrapa (*Licht.*).—Fourteen specimens, both sexes, Divala and David, October, November and December.

Milvulus tyrannus (*Linn.*).—Seven specimens, both sexes, Divala and David, October and December.

Milvulus forficatus (*Gmel.*).—Five specimens, both sexes, Divala, November and December.

Pipra mentalis ignifera,¹ subsp. nov.

Fifteen specimens, both sexes, Divala, November and December.

Type.—Divala, Chiriqui, adult ♂, No. 7823, Coll. of E. A. and O. Bangs. Collected Nov. 30, 1900, by W. W. Brown, Jr.

¹ *Ignifer*, firebearing.

Characters.—A southern form of *P. mentalis*, distinguished by the red of the head being much more intense, less mixed with orange; by having deeper yellow thighs and under wing-coverts; and by the black of the body being rather more intense.

Color.—Adult ♂: Intense black; whole top and sides of head vivid scarlet-vermilion, the bases of the feathers orange; chin and thighs deep gamboge-yellow, in one or two specimens (very old ones?) shot with orange-vermilion; under wing-coverts pale lemon yellow; inner margins of secondaries and tertials yellowish white. Adult ♀: Above dull oil-green; throat, belly and under wing-coverts olive yellow; breast oil-green; thighs wax yellow; primaries and secondaries and rectrices dusky, margined with green; inner margins of secondaries and tertials buffy white.

Measurements (in millimeters).

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7823	Type	♂ ad.	59.	25.5	15.	10.
7819	Topotype	♂ ad.	59.5	26.	15.	10.
7822	"	♂ ad.	58.5	26.	15.	10.
7824	"	♂ ad.	59.	27.	15.4	9.8
7825	"	♂ ad.	59.5	25.5	15.2	10.
7827	"	♀ ad.	60.	25.5	15.	10.
7828	"	♀ ad.	58.5	24.5	14.8	9.8
7829	"	♀ ad.	59.5	26.	14.8	10.

Remarks.—The type locality of true *Pipra mentalis* Scl. is Oaxaca, Mexico. I have examined a large series of this form, from many points in southern Mexico and northern Central America, and find very little variation among them. I have also seen a large number of specimens of the southern form, here named *P. mentalis ignifera*, from many places in southern Central America, and Chiriqui; they also differ very little among themselves. The line between the two forms seems very sharply drawn, though the characters that separate them are slight, consisting chiefly in the different shades of color of the head, thighs and under wing-coverts of the male. These differences, however, are perfectly constant, and are easily seen on comparison.

Pipra velutina Berl. — Eighteen specimens, both sexes, Divala, October, November and December.

Pipra leucorrhoea Scl. — Three males, Divala, November and December. "Iris brown."¹

¹ Note made by Mr. Brown from fresh specimens.

Chiroxiphia lanceolata (Wagl.).—Two males, Divala, December 17, and David, October 16.

Manacus aurantiaca (Salv.).—Twenty-five specimens, both sexes, Divala, October, November and December. The type locality of the species is Bugaba, Chiriqui.

*Scotothorus*¹ *veræpaci* (Scl.).—Two specimens, ♂ and ♀, Divala, December.

Pachyrhamphus cinereiventris Scl.—Three specimens, both sexes, Divala, October, November, and December.

Lathria unirufa (Scl.).—One ♀, Divala, October 27.

Lipaugus holerythrus Scl. & Salv.—Five specimens, both sexes, Divala, November and December.

Attila sclateri Lawr.—Two specimens, ♂ and ♀, Divala, December 11.

Chasmorhynchus tricarunculatus J. & E. Verr.—Thirty-four specimens, adults of both sexes, and young males in every stage of plumage, from a dress closely resembling that of the adult ♀ to that which differs only from the adult ♂ in having a few green feathers irregularly mixed in the brown and white of body and head, Divala, October and December.

Myrmotherula menetriesii (d'Orb.).—Four males, Divala, November and December.

Dryophila boucardi Scl.—Seven specimens, both sexes, Divala, November and December.

Cercomacra crepera,² sp. nov.

Four specimens, both sexes, Divala, November.

Type.—Divala, Chiriqui, adult ♂, No. 7913, Coll. of E. A. & O. Bangs. Collected Nov. 24, 1900, by W. W. Brown, Jr.

Characters.—Similar to *C. tyrannina* except in being very much darker in color throughout.

Color.—Adult ♂, upper parts slate black, a large concealed white dorsal patch; under parts slate gray darkest on breast and becoming dull olive on flanks, lower belly and under tail-coverts; lesser and middle wing-coverts tipped with white, the greater coverts slightly so; rectrices barely tipped with whitish; lining of wing mostly white. Adult ♀, similar to ♀ of *C. tyrannina*, but darker throughout, the ochraceous of under parts several shades darker, the brownish olive of back darker and more dusky, and the wings and tail darker reddish brown.

¹ *Scotothorus* (cf. Oberholser, Proc. Acad. Nat. Sci. Phila. 1899, pp. 208-209), *Heteropelma* Bp. being preoccupied.

² *Creper*, dusky, dark.

Measurements (in millimeters).

No.	Type	Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7913	Type	♂ ad.	60.	55.	22.4	16.4
7916	Topotype	♂ yg.	62.	60.	24.	17.
7915	"	♀ ad.	61.	61.	24.	16.4
7914	"	♀ ad.	61.	54.	23.	16.6

Remarks. The type locality of *Cercomacra tyrannina* is Bogota; from this region north to Panama the form extends without change. Specimens collected by Mr. Brown at Loma del Leon, precisely matched skins from the type locality. In Nicaragua and Chiriqui the present form replaces *C. tyrannina*, and the two may prove only subspecifically distinct, but the differences in color are so marked that it seems best, for the present at least, to regard them as distinct species.

I am a little astonished that this bird, which is not rare in Nicaragua and Chiriqui, and is often found in collections from these countries, should not have been named before, it is so noticeably different in color from *C. tyrannina*.

Gymnocichla nudiceps (Cassin).—Seven males, Divala, October, November and December.

Formicarius umbrosus Ridgw.—One ♀, not fully adult, Divala, December 11.

Thamnophilus transandeanus ScL.—Thirteen specimens, both sexes, Divala, October, November and December.

Thamnophilus doliatus (Linn.).—Thirteen specimens, both sexes, Divala and David, October, November and December. The races of this species are rather difficult to understand. Birds from Chiriqui and northward have the general appearance of true *T. doliatus* of Guiana, but from the region lying between the ranges of these two comes the quite different black-crested *T. doliatus nigricristatus*. The northern bird has been called *T. doliatus affinis* (Cab. & Heine), but Bonaparte's name *T. rutilus*, based on a female from Guatemala, appears to be the proper name of the race, should it prove distinct. I do not use it here because, so far, in spite of its curious distribution, I have been unable to find any satisfactory way of distinguishing it even as a subspecies.

Thamnophilus punctatus Cab.—Fourteen specimens, both sexes, Divala and David, October, November and December. The females are, of course, the so-called *T. bridgesi*. Mr. Cherrie, was, I believe the first to discover that *T. punctatus* and *T. bridgesi* are but the male and female of one and the same species.

Gymnopathys bicolor olivaceus Ridgw.—Two specimens, ♂ and ♀, Divala, November and December.

Myrmelastes intermedius (Cherrie).—Three specimens, both sexes, Divala, November.

Grallaria perspicillata Lawr.—Four specimens, both sexes, Divala, October, November and December.

Dendrocolaptes sanctithomæ (Lafrr.).—Two specimens, ♂ and ♀, Divala, November.

Dendroornis lacrymosa Lawr.—Two males, Divala, November and December.

Dendroornis nana Lawr.—Seven males, Divala, October, November and December.

Picolaptes lineaticeps ScL.—Six specimens, both sexes, Divala and David, October, November and December.

Dechonychura typica Cherrie.—Two specimens, ♂ adult and ♀ young, Divala, December. Mr. Brown was fortunate in securing two examples of this very rare bird, known before only by the type specimen and one specimen from Panama—both in the National Museum.

Dendrocincla anabatina ScL.—Three males, Divala, November and December.

Automolus exsertus,¹ sp. nov.

Six specimens, both sexes, Divala, November and December.

Type.—Divala, Chiriqui, adult ♀, No. 7868, Coll. of E. A. & O. Bangs. Collected Nov. 29, 1900, by W. W. Brown, Jr.

Characters.—Related to *A. cervinigularis* and *A. pallidigularis*. Size about as in the former (larger than *A. pallidigularis*). Colors different from those of either; breast not mottled; the underparts, breast, belly, and sides are browner and more olivaceous; the back much more olivaceous, less rufous; the throat is about the same color as in *A. cervinigularis*.

Color.—Superciliary stripe and orbital ring tawny ochraceous; back rich raw umber, head slightly darker, the feathers scaly in appearance; upper tail-coverts and tail ferruginous-chestnut; wings burnt umber; throat buff; breast not mottled, about tawny olive, shading to raw umber on sides and flanks and to ferruginous on under tail-coverts.

Measurements (in millimeters).

No.		Sex.	Wing.	Tail.	Tarsus.	Exposed culmen.
7868	Type	♀ ad.	90.	73.	24.	24.
7869	Topotype	♀ ad.	89.	72.	25.	23.6
7872	"	♀ ad.	91.5	76.	24.4	23.
7870	"	♂ ad.	91.	76.5	24.2	23.

¹ *Exsertus*, evident, conspicuous.

Remarks.—*Automolus exsertus* must not be confused with a form described by Messrs. Salvin & Godman from the same general region, but from higher altitudes in the Cordillera de Chiriqui. This bird, *A. fumosus*, belongs to the *rubiginosus* group, which is distinguished by lacking a superciliary stripe; *A. exsertus* belongs with *A. cervinigularis* and *A. pallidigularis*, with a conspicuous superciliary stripe, but is a very well marked form, differing in lacking the mottling of the breast and being of a more olivaceous color throughout. In size it is nearest to *A. cervinigularis* and in color rather nearer to *A. pallidigularis*, though different in this respect from either.

Xenops genibarbis Ill.—Four specimens, both sexes, Divala, November.
Stelgidopteryx ruficollis uropygialis (Lawr.). Five males, Divala, November and December. These specimens differ a good deal individually, — two are true *S. uropygialis*, exactly like Panama birds, the other three approach *S. ruficollis fulvipennis* of southern Mexico and Guatemala, in varying degrees.

Tachycineta albilinea (Lawr.). — One adult ♀, David, October 16.

Vireo flavifrons Vieill. — One ♀, Divala, November 7.

Hylophilus flavipes viridiflavus (Lawr.).—Two males, one from Divala, November 5, the other from David, October 17.

Cyanocorax affinis zeledoni Ridgw.—Four specimens, both sexes, Divala, November and December.

Troglodytes inquietus Baird.—Four males, Divala, November. One in nestling plumage was taken November 17.

Thryothorus fasciiventris melanogaster (Sharpe).—Nine specimens, both sexes, one in nestling plumage, Divala, November and December. The type locality of the form is Bugaba, Chiriqui; it seems to be fairly well differentiated from the Panama form, *T. f. albigularis* (Scl.).

Thryophilus rufalbus castanonotus (Ridg.).—Two males, Divala, December 2, and David, October 22.

Thryophilus modestus (Cab.).—Three specimens, both sexes, Divala, October and November.

Rhodinocichla rosea (Less.). — Sixteen specimens, adults of both sexes, and two young, Divala, November and December.

Merula leucauchen (Scl.).—Two specimens, ♂ and ♀, Divala, December.

Merula grayii casius (Bp.).—Seven specimens, both sexes, Divala and David, October, November and December.

Poliophtila bilineata Bp. — One ♀, Divala, November 5.

Anthus rufus parvus (Lawr.). — Two males, Divala, December 3.

Basileuterus leucopygius veraguensis Sharpe.—One adult ♂, Divala, November 18.

Geothlypis formosa (Wils.).—One ♂, Divala, December 7.

Seiurus aurocapillus (Linn.).—Two specimens ♂ and ♀, Divala, December.

Dendroica æstiva (Gmel.).—Nine specimens, both sexes, Divala, October 28–November 26, David, October 17.

Dendroica pensylvanica (Linn.).—Six specimens, both sexes, Divala, November 4–November 18.

Helminthophila peregrina (Wils.).—One ♀, Divala, October 29.

Protonotaria citrea (Bodd.).—Two males, Divala, December 10, and David, October 16.

Mniotilta varia (Linn.).—Three females, Divala, November 5 and December 7.

Cœreba mexicana (Scl.).—Four males, including one in nestling plumage, Divala, October and November.

Cyanerpes cyaneus carneipes (Scl.).—Sixteen specimens, both sexes, Divala, November and December.

Cyanerpes lucida (Scl. & Salv.).—One young male, Divala, November 16.

Chlorophanes spiza guatemalensis Scl.—One adult ♂, Divala, October 29.

Dacnis ultramarina Lawr.—One adult ♂, Divala, November 2.

Euphonia crassirostris Scl.—Seven specimens, both sexes, Divala, October and November.

Euphonia gracilis (Cab.).—Two specimens, ♂ and ♀, Divala, November 5 and December 6.

Euphonia luteicapilla (Cab.).—Twenty-three specimens, both sexes, Divala and David, October, November and December. Three adult males in this series have white, in varying amount, in the tail.

Calospiza larvata fanny (Lafr.).—Fifteen specimens, both sexes, Divala, November and December.

Tanagra cana diaconus (Less.).—Thirty-three specimens, both sexes, Divala and David, October, November and December.

Piranga rubra (Linn.).—Twenty specimens, both sexes, Divala, October, November and December.

Ramphocelus dimidiatus Lafr.—Twenty-three specimens, both sexes, Divala and David, October, November and December. These skins, as also the ones taken at Loma del Leon, Panama, by Mr. Brown, are referable to true *R. dimidiatus*, differing only from South American examples in averaging a trifle larger, and in the belly patch being not of quite such an intense black. They do not approach in any way *R. dimidiatus isthmicus* Ridgw. of western Panama.

Ramphocelus passerinii Bp.—One hundred and fifty-one specimens, both sexes, Divala and David, October, November and December.

Tachyphonus nitidissimus Salv.—Two adult males, Divala, December. The type locality of the species is Bugaba, Chiriqui.

Lanio melanopygius Salv. & Godm.—Nine specimens, both sexes, Divala, November and December.

Eucometes spodocephala (Bp.).—One adult ♂, Divala, December 16.

Saltator intermedius Lawr.—Ten specimens, both sexes, Divala, October and November.

Arremon aurantirostris Lafr.—Ten specimens, both sexes, one young

in nestling plumage, Oct. 27, Divala, October, November, and December.

Arremonops conirostris (Bp.). — Six specimens, both sexes, Divala, November and December.

Sporophila aurita (Bp.). — Five specimens, both sexes, Divala, October and November.

Volatinia jacarina splendens (Vieill.). — One adult ♂, Divala, November 17.

Icterus galbula (Linn.). — Two males, Divala, December 9.

Sturnella magna inexpectata Ridgw. — One ♀, David, October 16.

Amblycercus holosericeus (Licht.). — Nine specimens, both sexes, Divala, November and December.

Cacicus microrhynchus (Sch. & Salv.). — Five males, Divala, November and December.

Ostinops decumanus (Pall.). — One adult ♂, Divala, November 12.

Zarhynchus wagleri (Gray). — Three specimens, both sexes, Divala, November and December.

Cassidix oryzivora mexicana (Less.). — One adult ♂, David, October 15.

THE CLASSIFICATION OF BIRDS.

BY HUBERT LYMAN CLARK.

THERE is a good old saying that "fools rush in where angels fear to tread," and the writer is aware that in approaching such a very complex subject as the classification of birds, without far more experience than he has had, he is laying himself open to a very prompt and simple classification under the above given rule. His only plea is that a simple classification of birds, one comparable with the classification of other animals, is greatly to be desired, and he believes that in the field of pterylography a way to such an end may be found. If one takes the trouble to examine the classifications of birds as given in the most recent elementary zoölogies, and compares them with classifications by ornithologists like Gadow or Sharpe, it will be perfectly obvious that general zoölogists prefer to cling to the old, worn-out 'orders' of Cuvier and his immediate successors, than attempt to introduce their students to the score or more 'orders' of present-day authorities. The belief is very general among zoölogists that the *orders* of birds