

and apex armed with a spine in front; a spine on the anterior edge of the following joint. The first pair of caudal appendages terminate half way the rami of the third pair; the second pair rudimentary, represented only by a projecting tubercle.

Male.—The base of the superior antennæ stouter than in the female, the first joint broad, the second long and straight, with its inferior apex produced, and its lower edge densely hairy; the first and second joints of the flagellum subequal, and together about as long as the third; the third and fourth subequal, the remainder of the flagellum lost. The inferior antennæ more slender than the superior; peduncle three-jointed, and bent upward at the third joint; the first joint broad, the others successively diminishing in breadth; flagellum very long, one-half, or more, than the length of the body, filamentous, joints elongate, the first the longest, the remainder subequal. The under surface of the flagella of both pairs furnished with long, equidistant hairs. The body of the animal smaller and stouter than the female; the last two joints of the third pair of feet relatively shorter, and all the feet shorter and more robust; the fifth joint of the fifth pair about one-half the length of the fourth joint, and impinges on the large tooth anterior to its middle. The second pair of caudal appendages well developed, and extend to the commencement of the rami of the first pair.

The number of specimens examined was seven—six females and one male—varying in lengths from 9 to 15^{mm}, and coming from localities in the Pacific Ocean north and south of the equator, from latitude 34° 00' north to latitude 30° 40' south, and from longitude 102° 43' west to longitude 150° 00' west. Claus first describes the species as coming from the Mediterranean Sea. The length of the male specimen, 10^{mm}.

EXPLANATION OF PLATE I.

- FIG. 1. *Phronima atlantica* (female). Fifth thoracic foot; 1 a. Caudal appendages.
 FIG. 2. *Phronima atlantica* (male). Fifth thoracic foot.
 FIG. 3. *Phronima pacifica* (female). Fifth thoracic foot; 3 a. Caudal appendages.
 FIG. 4. *Phronimella elongata* (male). Fifth thoracic foot; 4 a. Caudal appendages.
 FIG. 5. *Phronimella elongata* (female). Fifth thoracic foot; 5 a. Caudal appendages.

WASHINGTON, D. C., March 1, 1882.

DESCRIPTION OF SEVERAL NEW RACES OF AMERICAN BIRDS.

By ROBERT RIDGWAY.

1. METHRIOPTERUS CURVIROSTRIS OCCIDENTALIS.*

CH.—Similar to *M. curvirostris*, Swains., but tail much longer, colors darker and browner, spots of lower parts better defined and regularly

* METHRIOPTERUS CURVIROSTRIS OCCIDENTALIS Ridgw., MS.

“*Harporynchus curvirostris*” LAWR. Mem. Boston Soc. N. H. II. pt. iii, No. 2, 1874, 267 (Tepic and Mazatlan).

cuneate or deltoid on the breast, the posterior lower parts suffused with much deeper fulvous, and the tail spots pale isabella-color or brownish white, instead of pure white.

Adult: Above grayish brown, the remiges and tail more brownish; middle and greater wing-coverts sometimes narrowly tipped with dull white, but these markings occasionally quite obsolete; three or four outer tail-feathers tipped with dull brownish white or pale isabella-color, the spots about .35-.40 of an inch wide on inner web of lateral feathers, successively much more restricted on the others. Lower parts pale isabella-color, paler on chin and throat, which are nearly white, as is sometimes also the breast and middle of the abdomen, the color gradually deepening into brownish ochraceous or fulvous on the flanks, anal region, and crissum. Jugulum marked with distinct, regularly cuneate or deltoid, spots of grayish brown, like the color of the upper parts; breast and sides marked with roundish, elliptical, or tear-shaped spots of the same, the spots largest on the breast, where sometimes more or less blended. Bill black, the basal portion of the mandible more brownish; legs and feet dark brownish. Wing, 4.45-4.70 (4.56); tail, 5.00-5.20 (5.10); culmen, 1.12-1.30 (1.20); bill from nostril, .90-1.15 (1.02); gonys, .70-.85 (.77); tarsus, 1.40; middle toe, 1.00-1.10 (1.05).*

Hab.—Coast region of western Mexico, in the vicinity of Tepic and Mazatlan ("common resident").

2. MIMUS GILVUS LAWRENCEI.

CH.—Differing from true *M. gilvus* in much longer wing and tail, decidedly smaller and slenderer bill, decidedly lighter and browner gray of upper parts, much less distinct light superciliary stripe, and other details of coloration. From var. *gracilis* is much less distinctly black wings, with less sharply contrasted light markings, upper parts browner, the bill smaller and more slender, etc.

Adult: Above uniform brownish gray (much as in *M. polyglottus*, but rather browner); wings and tail dusky (not black), the greater coverts and remiges broadly edged with brownish gray (like the back), the middle and greater wing-coverts distinctly tipped with white (forming two narrow bands), and the extreme base of the primaries white, usually, however, concealed by the primary coverts; three to five outer tail-feathers abruptly tipped with white, this 1.40-1.65 inches in extent on the outer feather, which has the outer web mostly or entirely white; the middle rectrices narrowly and indistinctly whitish or pale grayish at extreme tips. A very indistinct paler superciliary stripe, strongly contrasted only with the dusky lores; an indistinct dusky post-ocular streak; eyelids pure white. Lower parts dull white, purer on the throat and belly, the jugulum shaded with pale grayish, the flanks and anal-region, sometimes the crissum also, more or less strongly tinged with buff. Bill,

* Extreme and average measurements of 4 adults.

legs, and feet, black; iris "gray," "light olive," or "yellow" (SUMICHRIST, MS.). Wing 4.30-4.50 (4.40), tail 4.90-5.20 (5.02), culmen .65-.67 (.66), tarsus 1.20-1.35 (1.27), middle toe .80-.85 (.82).

Hab.—Isthmus of Tehuantepec (Tehuantepec City: F. Sumichrast).

Types in U. S. Nat. Mus. (Nos. 59678, ♂, and 59677, ♀, Tehuantepec City, October 8 and 29, 1869: F. Sumichrast).

The bird described above is a well-marked race, apparently referable to *M. gilvus*, though possibly (with *M. gracilis*, Cabanis, of Yucatan, Guatemala, and Honduras) distinct specifically. A considerable number of specimens of the various forms referred by authors to *M. gilvus*, representing many localities, have been examined in this connection, and the result appears to justify the subdivision of that species into several races, as follows:

A. Whitish superciliary stripe very distinct.

a. gilvus. Above dark brownish gray, general outer surface of the wings not distinctly darker. Wing 3.85-4.40 (4.08), tail 3.90-5.00 (4.39), culmen .70-.80 (.73), tarsus 1.18-1.32 (1.27), middle toe .80-.90 (.83). *Hab.*—Guiana, Tobago, Grenada, Sta. Lucia, St. Vincent, and Martinique.* (10 specimens examined.)

β. melanopterus. Above much lighter gray, the wings distinctly darker, by reason of narrower paler edgings. Wing 4.60-4.75 (4.67), tail 4.80-5.30 (5.12), culmen .72-.80 (.77), tarsus 1.35-1.38 (1.36), middle toe .88-1.00 (.92). *Hab.*—Venezuela and Colombia. (4 specimens.)

B. Superciliary stripe very indistinct.

γ. gracilis. Above deep gray (about intermediate in shade between *gilvus* and *melanopterus*), the wings pure black, in abrupt and very conspicuous contrast, and with the clear white markings very sharply defined. Wing 4.15-4.80 (4.49), tail 5.00-5.80 (5.38), culmen .70-.75 (.72), tarsus 1.20-1.37 (1.31), middle toe .80-.90 (.87). *Hab.*—Guatemala, Honduras, and Yucatan. (5 specimens.)

δ. laurencei. Above decidedly brownish gray, the wings about as in *M. melanopterus*. Wing 4.30-4.50 (4.40), tail 4.90-5.20 (5.02), culmen .65-.67 (.66), tarsus 1.20-1.35 (1.27), middle toe .80-.85 (.82). *Hab.*—Southern Mexico (Isthmus of Tehuantepec). (3 specimens.)

The synonymy of the several forms is as follows:

α. GILVUS.

Turdus gilvus VIEILL. Ois. Am. Sept. ii, 1807, 15, pl. 68 *bis* (Guiana); Nouv. Dict. xx, 1818, 296; Enc. Méth. 1823, 678.

*A very young bird, unquestionably of this species collected by Ober (Nat. Mus., No. 75125; orig. No. 793; "August").

Mimus gilvus JARDINE Ann. N. H. ser. 2, xx, 1847, 329 (Tobago).—SCL. P. Z. S., 1859, 342.—TAYLOR Ibis 1864, 80 (Trinidad).—SEMPER, P. Z. S. 1871, 268 (Sta. Lucia, W. I.); ib. 1872, 648 (do.).—SCL. & SALV. Nom. Neotr. 1873, 3 (part).—BOUCARD, Cat. Av. 1876, 146 (Guiana).—LAWR. Pr. U. S. Nat. Mus. i, 1878, 187 (St. Vincent, W. I.); ib. 1879, 268 (Grenada, W. I.).—SALV. & GODM. Biol. Centr. Am. Aves, i, 1879, 36 (part).

"*Mimus melanopterus*" (part) SCL. P. Z. S. 1859, 342 (spec's from Trinidad and Tobago); Cat. Am. B. 1861, 9 (Trinidad).

β. MELANOPTERUS.

Mimus melanopterus LAWR. Ann. Lyc. N. Y. 1849, 35, pl. 2 (Venezuela).—SCL. P. Z. S. 1859, 342 (part: spec's from New Granada and Venezuela); Catal. Am. B. 1861, 9 (Rio Negro and Bogota).—SCL. & SALV. P. Z. S. 1868, 1866 (Venezuela).—WYATT, Ibis, 1871, 320 (Sta. Marta, New Granada).

Mimus columbianus CABAN. Mus. Hein. i, Jan. 1851, 82 (Colombia; Venezuela).

γ. GRACILIS.

Mimus gracilis CABAN. Mus. Hein. i, Jan., 1851, 83 (Honduras?).—SCL. & SALV. Ibis, 1859, 5 (Belize; Vera Paz).—SCL. P. Z. S. 1859, 343 (Guatemala; Honduras), Cat. Am. B. 1861, 9, No. 58 (Salamá, Guatamala; Honduras).—MOORE, P. Z. S. 1859, 55 (Belize).—TAYLOR, Ibis, 1860, 110 (Comayagua, Honduras).—OWEN Ibis, 1861, 60 (San Geronimo, Guat.; fig of egg, pl. ii, fig. 2).—BAIRD, Review, 1864, 54 (San Geronimo).—LAWR. Ann. Lyc., N. Y., ix, 1869, 199 (Merida, Yucatan).—FRANTZIUS, Jour. für Orn. 1839, 290.

"*Mimus gilvus*" (part) SCL. & SALV. Nom. Neotr. 1873, 3 ("Central America to Guatemala").—SALV. & GODM. Biol. Centr. Am. Aves, i, 1879, 36 (Merida, Yucatan; Belize, Comayagua, Light-house, and Glover's reefs, Honduras; Salamá, San Geronimo, plain of Zacapa, upper Montagua valley, Dueñas, and Jutiapa, Guatemala).

δ. LAWRENCEI.

"*Mimus gracilis*" LAWR. Bull. U. S. Nat. Mus. No. 4, 1876, 12 (Tehnantepec City).

3. MERULA FLAVIROSTRIS GRAYSONI.*

CH.—Above grayish brown, slightly grayer on the nape, decidedly ashy on primaries, upper tail-coverts, and outer webs of tail-feathers, the wing-coverts and scapulars yellowish brown or raw-umber-brown; lores dusky. Malar region, chin, and throat, white, streaked (except on chin) with brownish dusky; jugulum light grayish brown, or brownish gray, indistinctly streaked with darker; breast, sides, and flanks, plain light brown or grayish ochre; axillars and lining of wings deeper, more reddish, ochraceous; abdomen, anal region, and crissum, white; tibiæ light dingy grayish. Bill yellowish, dusky at tip and on basal portion of culmen; "iris reddish brown" (GRAYSON); legs and feet light brown (dull yellowish in life?). Wing 4.80–4.85, tail 3.90–4.00, culmen .80–.85, bill from nostril .60, tarsus 1.35, middle toe .80–.90. *Hab.*—Tres Marias Islands, off coast of Western Mexico.

Types, Nos. 37322, ♂, and 37323, ♀, U. S. Nat. Mus.; Tres Marias, Jan. 1865; Col. A. J. Grayson.

* MERULA FLAVIROSTRIS GRAYSONI, Ridgway, MS.

"*Turdus flavirostris*" LAWRENCE, Proc. Boston Soc. N. H. 1871, 276; Nat. Hist. Tres Marias and Socorro, 1871, 17; Mem. Bost. Soc. N. H. ii. pt. 3, No. 2, 1874, p. 266.

4. *SIALIA SIALIS GUATEMALÆ*.*

CH.—Similar to *S. sialis* of the eastern United States, but with decidedly longer wing and tail, the cinnamon of breast, etc., paler; ♀ with the back decidedly bluish.

♂ *adult*: Above uniform rich cobalt blue (exactly as in *S. sialis*), the shafts of the rectrices and remiges deep black, and the ends of the primaries dusky black. Chin, throat, breast, sides, and flanks, pale cinnamon; abdomen white; anal region and lower tail-coverts white, the latter tinged with blue, and with dusky shafts. Bill and feet deep black; iris brown. Wing 4.15–4.40, tail 2.80–3.00, culmen .50, tarsus .80–.85, middle toe .62–.65.

♀ *adult*: Above dull grayish blue, more brownish across the nape; feathers of pileum and back with blackish shaft-streaks (obsolete in winter plumage); rump, upper tail-coverts, and tail, bright blue, lighter and more greenish than in the ♂; wings dull blue; throat, jugulum, breast, sides, and flanks, pale dull cinnamon; abdomen, anal region, and crissum, white. Bill, tarsi, and toes, black; iris, brown. Wing 4.00–4.10, tail 2.70–2.80.

Hab.—Highlands of Guatemala and Honduras.

A considerable series of specimens of Guatemalan Bluebirds are quite uniform in their characters, as described above. It is somewhat strange that this extreme southern form should resemble much more closely in colors the true *S. sialis* of the eastern United States than the *S. azurea* of eastern Mexico, but such is nevertheless the case. Specimens in the National Museum collection are from central Guatemala ("Coban to Clusec"), and Vera Paz (Tactic and Coban). I have not seen a specimen from Honduras, but the birds of that country are probably identical with those from Guatemala.

5. *CHAMÆA FASCIATA HENSHAWI*.

CH.—Differing from *C. fasciata* of the coast district of California in very much paler and grayer colors. Above brownish gray, becoming decidedly ashy on sides of head and neck, the tail showing very indistinct narrow transverse bars of a darker shade (quite obsolete in some specimens). Beneath pale vinaceous-buff, more or less tinged with pale ashy, especially on the sides. Wing 2.20–2.50, tail 3.20–3.70, culmen .40–.45, tarsus .95–1.05.

* *SIALIA SIALIS GUATEMALÆ*, Ridgw., MS.

"*Sialia wilsoni*" SCL. & SALV. Ibis, 1859, 8, (highlands of Guatemala; "El Azulejo"); Nom. Neotr. 1873, 4 (part).—SALVIN, Ibis, 1860, 29 (Coban and Dueñas; resident).—TAYLOR, Ibis, 1860, 15, 110 (highlands of Honduras, pine region, alt. 5,000 ft.).—OWEN, Ibis, 1861, 60 (Guatemala; descr. nest and eggs).—SCL. Cat. Am. B. 1862, 10 (part).

"*Sialia sialis*" SALV. & GODM. Biol. Centr. Am. Aves, i, 1879, 45 (part).

"*Sialia azurea*" BAIRD, Review, 1864, 62 (part).—SEEBOHM, Cat. B. Brit. Mus. v, 1881, 331 (Guatemala).

Hab.—Interior districts of California, including west slope of Sierra Nevada; north to Sacramento, south to Walker's Basin, Tejon Mts., and San Diego.

The differences in coloration between this interior form and the coast race (true *fasciata*) are very striking on comparison of specimens, and may be briefly tabulated as follows:

Var. *FASCIATA*. Above deep umber-brown, more grayish on side of head and neck; beneath deep cinnamon-buff, or light cinnamon, the throat and jugulum more or less distinctly streaked with dusky or grayish. Wing 2.20–2.60, tail 3.20–3.70, culmen .40–.45, tarsus 1.00–1.10. *Hab.*—Coast of California, south to Sta. Clara, north to or beyond Nicasio.

Var. *HENSHAWI*. Above brownish gray or grayish brown, the sides of head and neck decidedly ashy; beneath pale cinnamon-buff, or pale vinaceous-buff, usually more or less suffused with pale ashy, the darker streaks on jugulum, etc., nearly or quite obsolete. Wing 2.20–2.50, tail 3.20–3.70, culmen .40–.45, tarsus .95–1.05. *Hab.*—Interior of California, including western slope of Sierra Nevada.

As may be seen from the above measurements (taken from seven adult specimens of *fasciata* and eight of *henshawi*), the dimensions of the two forms are essentially identical. The extreme development of the characters distinguishing *C. henshawi* is seen in specimens from Walker's Basin and the Tejon Mts., collected by Mr. H. W. Henshaw, to whom this new form is dedicated. Specimens from Sacramento are darker, but still not enough so to make them referable to the coast form, to which all specimens from Stockton seem to belong. The darkest examples of *C. fasciata*, as restricted, come from the coast district north of San Francisco Bay (Nicasio, Marin Co., C. A. Allen).

1. *CHAMEA FASCIATA* (typica).

Parus fasciatus GAMB. Proc. Phil. Acad. Aug. 1845, 265 ("California").

Chamava fasciata GAMB. Proc. Phil. Acad. Feb. 1847, 154; Jour. Philad. Acad. i, 1847, 34, pl. viii, fig. 3 (adult).—CABAN. Weigm. Archiv. 1848, i, 102.—CASS. Illustr. 1853, 39, pl. 7 (adult).—BAIRD, B. N. Am. 1858, 370 (part); Review, 1864, 76 (part).—COOPER, B. Cal. i, 1870, 39 (part); "Coast of California, north to lat. 38°".—B. B. & R. Hist. N. Am. B. i, 1874, 84, pl. vi, fig. 8.—BELDING, Proc. U. S. Nat. Mus. i, 1879, 402 (Stockton; constant resid.).

2. *CHAMEA FASCIATA HENSHAWI*.

Chamava fasciata BAIRD, B. N. Am. 1858, 370 (part; specs. from Sacramento and Ft. Tejon); Review, 1864, 76 (specs. Sacramento Valley, Ft. Tejon, and San Diego). XANTUS, Proc. Phil. Acad. 1859, 191 (Ft. Tejon).—B. B. & R. Hist. N. Am. B. i, 1874, 84 (part).—COOPER, Orn. Cal. i, 1870, 39 (part; specs. from San Diego and foot-hills of Sierra Nevada).—NELSON, Proc. Boston Soc. N. H. xviii, 1875, 356 (Nevada, Cal.).—HENSHAW, Rep. Wheeler's Exp. 1876, App. J. J. p. 228 ("Chamoea"; Tejon Mts. and Walker's Basin, Aug.–Nov.).—BELDING, Proc. U. S. Nat. Mus. i, 1879, 402 (part; Marysville, Yuba Co., and Murphy's,* Calaveras Co.; constant resid.).

*Altitude, 2,400 feet.

6. PERISOREUS CANADENSIS NIGRICAPILLUS.

CH.—Similar to *P. canadensis fumifrons* in darkness of coloration, but forehead, lores, chin, throat, and sides of neck distinctly white, in marked and abrupt contrast with the dark color of adjacent parts; crown, occiput, and upper part of auricular region decidedly black, with little or no admixture of slaty anteriorly. Differing from true *canadensis* in much darker coloration throughout, much blacker crown, black auriculars, less extensive white area on forehead, and more marked contrast of the white portions of head and neck, with adjacent darker colors.

♂ *adult*: (No. 85950, U. S. Nat. Mus. Labrador, Apr. 2, 1880; "Schneider"; presented by Dr. L. Stejneger.) Whole forehead (back to about .75 of an inch from the anterior points of the nasal tufts), lores, malar region, chin, throat, and sides of neck soiled white, many of the feathers of the chin and throat having black shafts; crown and occiput, with upper and posterior portions of auricular region, deep black, somewhat mixed with slaty anteriorly and posteriorly. Upper parts dark dull slate, lighter and more grayish on the nape, and changing to plumbeous on the secondaries and tail-feathers, all of which are narrowly bordered at ends with white, which is about .25 of an inch wide on lateral rectrices; primaries edged with grayish white beyond their sinuations. Lower parts dark brownish gray, quite abruptly defined against the soiled white of the jugulum. Bill and feet deep black. Wing, 5.40; the primaries 1.10 longer than secondaries; tail, 5.30, its gradation only .75; culmen, .85; tarsus, 1.40; middle toe, .65.

It is only after very careful comparison with numerous specimens of the true *P. canadensis* from Maine, Nova Scotia, New Brunswick, Minnesota, and various localities in the interior of British America, and of an even larger series of *P. canadensis fumifrons* from Alaska, that I have concluded to base a new geographical race of this species upon the single specimen described above. That I am fully justified in doing so is evident from the fact that not one specimen among nearly 100 adult birds of this genus resembles very closely the specimen in question. In all probability the form to which the present specimen belongs inhabits the coast-district of Labrador, and would thus represent on the Atlantic side the littoral race of Alaska, called *P. canadensis fumifrons*.

SYNOPSIS OF THE WEST INDIAN MYADESTES.

By LEONHARD STEJNEGER.

Having had occasion to examine the various species of Myadestes* in connection with a study of the genera of Turdidæ, certain differences in the wing-structure among species of the West Indian group, typified by

* So the name is originally spelt by SWAINSON, and as $\mu\upsilon\alpha\iota\varsigma$ found besides $\mu\nu\tilde{\nu}\alpha$, I have preferred the older form to AGASSIZ'S restoration.