

DESCRIPTIONS OF SOME NEW SPECIES AND A NEW GENUS OF AMERICAN MOSQUITOES

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The following new forms are characterized for insertion in the forthcoming monograph of Culicidæ by Dr. L. O. Howard and the present authors. The present paper is in continuation of one recently published by us in Proc. U. S. Nat. Mus., vol. 35, pp. 53-70, 1908:

Aedes pagetonotum, new species

FEMALE.—Proboscis black; head with the occiput clothed with frosty white scales, a black patch well down the side; erect scales pale. Mesonotum clothed with frosty white scales, a few pale brownish ones intermixed on the disk, forming no pattern. Abdomen black-scaled above, with moderate basal white segmental bands, entirely white beneath. Legs dark-scaled without rings. Wings dusky-scaled, the scales broadly linear, the costa black-scaled with a white patch at the base. Claws toothed. Length, 5 mm.

MALE.—Similar to the female. Palpi longer than the proboscis, with patches of white scales at the bases of the last two joints. Length, 6 mm.

Ten specimens, Ottawa, Canada, May 15, 16, 1900; May 17, 19, 1901; May 20, 1905 (J. Fletcher); Chelsea [Canada], May 17, 1902 (A. Gibson); Aweme, Manitoba, June 3, 1904 (N. Criddle).

Type no. 12057, U. S. N. M.

Aedes pazosi, new species

FEMALE.—Occiput with golden scales. Mesonotum with broad, flat, golden scales. Abdomen dark violet blue above, with lateral triangular apical segmental spots of golden scales, venter golden-scaled. Legs dark violet blue, the scales on the hind tibiæ and tarsi not erect or roughened, last two hind tarsal joints white, the fourth joint marked with black beneath nearly throughout. Wing-scales brown.

One specimen, Vuelta-Abajo, Cuba (J. H. Pazos).

Type no. 12117, U. S. N. M.

Named in honor of the collector, Dr. J. H. Pazos.

BANCROFTIA PERSEPHASSA, new species

FEMALE.—Proboscis black-scaled, a white ring at the middle. Thorax clothed with narrow golden scales, with a subdorsal narrow bare line on either side, the sides of the disk dark except for a patch of golden scales over the root of the wing. Abdomen subcylindrical, truncate at tip, black-scaled above with yellowish white lateral basal segmental spots, venter black, with narrow white basal bands. Wings hyaline, the scales dusky black, the outstanding ones broad, obliquely subtruncate at the tip. Legs black-scaled, the femora with the apices yellowish white and a ring of this color at the apical third; tibiæ similarly marked; tarsi of the hind legs ringed with white at both ends of the joints, the last joint black at the tip; front and mid tarsi with the markings similar, but obsolete on the last three joints. Length, 3.5 mm.

One specimen, San Antonio de los Baños, Cuba (J. H. Pazos).

Type no. 12118, U. S. N. M.

CULEX LACTATOR Dyar and Knab

Variety *lactator* Dyar and Knab

Our *Culex lactator*, described from larvæ, proves to be very variable as adult. We propose to restrict our name to that form of *lactator* in which the legs are entirely black and the proboscis lacks the white ring, being only white-marked beneath, leaving the name *hassardii* Grabham for the normally fully marked form.

Variety *loquaculus*, new variety

In this form the pale markings are all reduced, the tarsal rings smaller than in normal *lactator* and of a brownish shade; the proboscis instead of being ringed is white-marked on the under side.

Type no. 12050, U. S. N. M.

We have selected six specimens as types from the Panama Canal Zone.

Culex lactator is a common tropical mosquito, the adult variable, but the larvæ constant. We have been obliged to recognize named varieties in this case, since the extremes are so different from the normal form as to fall very differently in any synoptic table. These forms would certainly be treated as distinct species by any student studying the adults alone.

CULEX ELOCUTILIS, new species

FEMALE.—Proboscis moderately long and slender, somewhat swollen towards the apex, black-scaled; palpi black-scaled. Occiput clothed with dark scales with bronzy luster, margin of the eyes narrowly white. Mesonotum uniformly dark brown-scaled with a bronzy luster, the scales on the scutellum paler. Abdomen depressed, truncate at tip, dark-scaled above with distinct coppery luster, the anterior angles of the segments laterally silvery white-scaled; beneath with basal segmental silvery bands. Wing-scales dark brownish, long and narrow. Legs bronzy brown, the apices of the hind tibiæ and the bases of the first, second, and third tarsal joints very narrowly pale-marked; claws simple. Length, 3 mm.

MALE.—Palpi longer than the proboscis, entirely black-scaled; coloration as in the female. Length, 2.5 mm.

Two specimens, Coscojar River, Porto Bello Bay, Panama (A. H. Jennings).

Type no. 12051, U. S. N. M.

CULEX IMITATOR Theobald

The typical adult has the thorax adorned with silvery markings, but these may be absent. We would restrict our name *vector*, based upon larvæ, to this form in which the silvery markings are absent.

CULEX VINDICATOR, new species

The name *Culex inquisitor* D. and K. is here restricted to the Trinidad specimens. We propose the new name *Culex vindicator* for part of the specimens from Dominica included under *inquisitor* (Journ. New York Ent. Soc., XIV, 211, 1906). In the Dominican species the proboscis is not ringed, the tarsal joints are narrowly marked with white at both ends, except that the tip of the last hind tarsal joint is black, the abdomen with basal white segmental bands.

Four specimens, Dominica, July (A. Busck).

Type no. 12098, U. S. N. M.

The larvæ are similar to those of *inquisitor*, but the basal tuft of the tube is without the pecten.

CULEX DICTATOR, new species

Another part of the specimens referred to above from Dominica are close to *vindicator*, but the abdomen is differently colored; in the present species it is black above with a coppery luster, the basal

white bands of uniform width, while in *vindicator* it is dull black. the basal white bands mesially produced.

Six specimens, Dominica, July (A. Busck).

Type no. 12099, U. S. N. M.

CULEX PECCATOR, new species

Proboscis rather long and slender, very slightly enlarged towards the apex, black-scaled; palpi short, black. Occiput clothed with broad, flat, bronzy black scales. Mesonotum clothed with bronzy black scales. Abdomen subcylindrical, truncate at the tip, clothed above with dull black scales; a row of white lateral triangular basal segmental spots; venter whitish, the last two segments with dark apical bands. Wings with the outstanding scales of the veins dense, spatulate on the forks of the second and fourth veins and on the third vein. Legs dark-scaled, the femora pale beneath. Length, 3 mm.

Eleven specimens, Scott, Lonoke County, Arkansas, September 30 to October 8, 1908 (J. K. Thibault, jr.).

Type no. 12192, U. S. N. M.

CULEX REVOCATOR, new species

Entirely similar to *Culex cubensis* Bigot, except that the labelle and tip of proboscis are white or whitish-scaled, and other minor differences.

Dr. Grabham sent us the specimens some time ago with the tentative determination "*Culex cubensis?*" We verified this determination at the time, but a later reëxamination revealed the difference specified above.

Twenty-five specimens, Hope Gardens and Newcastle, Jamaica (M. Grabham).

Type no. 12100, U. S. N. M.

CULEX REFLECTOR, new species

In general similar to *C. restuans* Theobald; the head is entirely white-scaled behind and the impressed lines of the mesonotum are distinctly narrower; there is no thoracic ornamentation.

Four specimens, Ancon, Canal Zone, Panama, bred from larvæ found in a tree-hole with *Megarhinus* (A. H. Jennings).

Type no. 12101, U. S. N. M.

CULEX ABOMINATOR, new species

With the general characters of *C. pipiens* Linn., but separable from it by the broader ovate wing-scales and the distinct banding on the under side of the abdomen.

Ten specimens, Tutwiler, Mississippi, August 2, 1904 (H. S. Barber); Rives, Tennessee, July 27 (H. S. Barber); Como, Franklin Parish, Louisiana, August 20 (G. E. Beyer); Victoria, Texas, July 28, 1904 (E. G. Hinds); Plano, Texas, September (E. S. Tucker).

Type no. 12103, U. S. N. M.

CULEX REDUCTOR, new name

We propose this name to replace *Mochlostyrax jamaicensis* Grabham, since when *Mochlostyrax* is placed as a synonym of *Culex*, as we find necessary, Dr. Grabham's name becomes preoccupied by *Culex jamaicensis* Theobald. Theobald's species was later placed by him in the genus *Grabhamia*, and by us in *Aedes*, but the name *Culex jamaicensis* cannot again be used.

CULEX DECEPTOR, new species

Legs dark-scaled. Proboscis swollen at the tip. Occiput dark-scaled, the eyes margined with whitish. Venter of the abdomen black and white-banded, the upper surface dull black without dorsal bands, but with pale lateral spots; forks of the second vein with long ligulate scales.

Three specimens, Fort White, Florida (H. Byrd).

Type no. 12104, U. S. N. M.

CULEX INCRIMINATOR, new species

Entirely similar to *Culex deceptor* Dyar and Knab, except in the scaling of the veins. The scales of the present form are elliptical on the forks of the second vein.

Three specimens, Agricultural College, Mississippi (W. V. Reed); sent to us under the name *Melanoconion atratus* by Prof. Glenn W. Herrick.

Type no. 12105, U. S. N. M.

CULEX FALSIFICATOR, new species

Proboscis black, enlarged towards the apex. Occiput clothed with broad, flat, bronzy black scales, a small area of narrow curved ones behind. Abdomen dull black above with transverse, basal, seg-

mental, dull white bands, beneath yellowish white scaled, the apices of the segments marked with indistinct pale brown bands. Wings with the scales narrowly ovate on the second to fourth veins outwardly. Legs black.

Seven specimens, Havana, Cuba, February 15, 1904 (J. R. Taylor).

Type no. 12108, U. S. N. M.

CULEX INVOCATOR, new species

Proboscis moderate, not swollen at the tip, black-scaled. Occiput with broad flat bronzy brown scales, a few narrow curved ones on the vertex, a patch of dull white scales well down the side. Abdomen deep black-scaled above with rather small lateral whitish spots, venter black-scaled with narrow white basal segmental bands. Legs black. Wing-scales dense, narrow, those on the apical portion of the wing mostly somewhat broader.

Sixteen specimens, San Antonio de los Baños, Cuba (J. H. Pazos).

Type no. 12110, U. S. N. M.

CULEX DUPLICATOR, new species

Proboscis uniform, black-scaled with a broad white ring at the middle. Abdomen black above, with rather narrow white basal segmental bands, some of them slightly produced in the middle. Legs black, femora and tibiae white-lined on the outer side, the tarsal joints broadly white-ringed at base and apex. Wing-scales narrow, those on the forks of the second vein moderately long, narrowly lanceolate.

Five specimens, San Francisco Mountains, Santo Domingo (A. Busck).

Type no. 12111, U. S. N. M.

CULEX AIKENII Aiken

Theobald described *Gnophodeomyia inornata* from British Guiana (Journal of Economic Biology, 1, 20, 1905; Monogr. Culicid., iv, 252, 1907); the description is repeated by Mr. Aiken (The British Guiana Medical Annual for 1906, 60, 1907), but under the name *Gnophodeomyia aikenii*, which name he credits to Theobald, but erroneously. We have received specimens, and find the species referable to *Culex*, of which *Gnophodeomyia* Theobald will become a synonym. Theobald's species on being transferred to *Culex* becomes invalidated through the existence of *Culex inornatus* Williston (U. S. Dept. Agr., Div. Ornith. and Mam., North American Fauna, no. 7, 253, 1893), and will be known as *Culex aikenii* Aiken.

CULEX LACHRIMANS, new name

Culex aikenii Dyar and Knab (not *Gnophodcomyia aikenii* Aiken), Proc. U. S. Nat. Mus., vol. 35, p. 61, 1908.

On account of the above-described facts, we are obliged to change the name of our *Culex aikenii*.

DINANAMESUS, new genus

Metanotum without setæ. Antennæ of the female with the second joint about eight times as long as wide, third and fourth together longer than the second, last joint slender; of the male, the second joint about six times as long as wide, the third nearly as long as the second, the succeeding joints subequal, the terminal joint enlarged into a slight knob, the hair-whorls as in the female.

DINANAMESUS SPANIUS, new species

FEMALE.—Proboscis rather long and stout, black-scaled. Occiput dark-scaled, the margins of the eyes white. Mesonotum brown-scaled, with numerous coarse dark bristles, particularly in the antescutellar region and at the bases of the wings. Abdomen somewhat compressed towards the tip, blunt, the cerci small, vestiture above brown with bronzy luster, beneath paler; tip of the abdomen coarsely hairy. Wings hyaline, the scales of the veins brown, long, narrowly ovate to ligulate; those of the costa with a strong bronzy luster. Legs with the tibiæ rather short and stout, bronzy brown-scaled above, pale-scaled beneath to near the apex. Tibiæ and tarsi uniformly bronzy brown-scaled. Claws simple. Length, 2.5 mm.

MALE.—Antennæ much longer than in the female, the hairs of the whorls slightly longer. Proboscis longer, slightly enlarged towards the apex. Abdomen compressed basally, enlarged towards the tip, the claspers large and stout. Coloration as in the female; claws of the fore and middle legs equal, one claw with a long basal tooth. Length, 2 mm.

Two specimens, bred from larvæ in crab-holes, Corozal, Canal Zone, Panama, and Coscojar River, Porto Bello Bay, Panama (A. H. Jennings).

Type no. 12052, U. S. N. M.

This genus is allied to *Deinocerites*, differing in the reduced length of the second antennal joint. It is a more ancestral form in this respect.

DEINOCERITES PSEUDES, new species

FEMALE.—Antennæ very long, the second joint as long as the next three, the terminal joint not swollen. Proboscis rather long and slender, brown-scaled. Mesonotum dark brown-scaled with numerous coarse black bristles. Metanotum nude. Abdomen compressed apically, blunt, the cerci small, without jointed appendages, vestiture dark above with bronzy luster, yellowish beneath. Legs bronzy brown-scaled, the femora pale beneath nearly to the apex. Claws simple. Length, 4 mm.

MALE.—Antennæ with the third joint slightly shorter than the second, the following joints successively shorter, the last joint with a small knob at the tip, the whorls at the bases of the joints inconspicuous, as small as in the female. Coloration as in the female. Genitalia approximately as in *D. cancer* Theob. Length, 4 mm.

Nine specimens, bred from larvæ in crab-holes, Ancon, Canal Zone, Panama (A. H. Jennings).

Type no. 12053, U. S. N. M.

DEINOCERITES TETRASPETHUS, new species

Similar to *D. cancer* Theobald, but the cerci of the female with four terminal flattened appendages instead of two; the appendages are not inserted together, but are approximated towards the tip of the cercus. Second joint of the antennæ about fourteen times as long as wide, the succeeding joints about six times as long as wide and subequal. Coloration as in *D. cancer*.

Two females, Bluefields, Nicaragua, and Puerto Barrios, Guatemala, without date or collector label.

Type no. 12109, U. S. N. M.

DEINOCERITES TROGLODYTUS, new species

Closely allied to *D. cancer* Theobald and of the same size and coloration, but the cerci of the female are sharply pointed and have a spine on the lower side (fig. 56, 2), and are not elongate conical as in *D. cancer* (fig. 56, 1), or stoutly conical as in *D. melanophyllum* D. and K. (fig. 56, 3), while the antennæ of the male are stout at the tip and uniform, the last joint not disproportionately enlarged (fig. 56, 2), not uniformly slender as in *D. melanophyllum* (fig. 56, 3), nor with the last joint enlarged like a knob, as in *D. cancer* (fig. 56, 1).

Twenty specimens, Trinidad, British West Indies, June (A. Busck).

Type no. 12128, U. S. N. M.

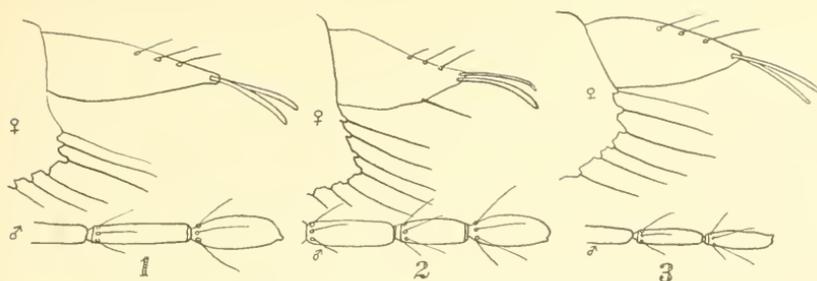


FIG. 56.—*Deinocerites*, female cerci and male antennæ:

1. *D. cancer* Theo.; 2. *D. troglodytus* D. and K.; 3. *D. melanophyllum* D. and K.

WYEOMYIA PANDORA, new species

Proboscis moderate, bronzy black. Occiput black with bronzy and blue reflection without white margin to the eyes. Prothoracic lobes dark metallic blue with violet and coppery luster. Abdomen with the colors separated on the sides in a straight line, silvery beneath. Wing-scales broad, ovate, many obliquely subtruncate; legs bronzy black, mid tarsi with the apical two-thirds of the second and all the succeeding joints silvery white on the outer side; hind tarsi with the last two joints white all around. Length, 3.5 mm.

Four specimens, Corozal, Canal Zone, Panama, bred from larvæ in *Calladium* leaf-axils (A. H. Jennings); Gorgona, Canal Zone, Panama, bred from larvæ (A. H. Jennings); Black Swamp, Canal Zone, Panama, from larvæ (A. H. Jennings).

Type no. 12132, U. S. N. M.

WYEOMYIA ONIDUS, new species

FEMALE.—Proboscis moderately long, swollen at the tip. Occiput dark-scaled, the margin of the eyes narrowly white. Prothoracic lobes dark-scaled without white apices. Abdomen dark-scaled above with bronzy luster, white beneath, the colors separated in a straight line. Legs bronzy brown, the femora pale at base beneath, the hind tarsi with the last two joints silvery white beneath, the white interrupted at the apex of the fourth joint; fore and mid tarsi without white. Wing-scales broad.

MALE.—Coloration as in the female.

Three specimens, bred from larvæ in the flower cups of *Heliconia*, Tabernilla, Canal Zone, Panama (A. H. Jennings).

Type no. 12054, U. S. N. M.

WYEOMYIA PANTOIA, new species

FEMALE.—Proboscis moderately long, swollen towards the tip, black-scaled. Occiput entirely dark-scaled. Prothoracic lobes dark-scaled, without light scales at the apices. Abdomen dark-scaled above, white beneath, the colors separated on the sides in a straight line. Legs bronzy brown, the femora pale beneath, the hind tarsi with the last two joints silvery white beneath; fore and mid tarsi without white. Wing-scales broad.

MALE.—Coloration as in the female.

Six specimens, bred from larvæ in flower-cups of *Heliconia* and captured, Tabernilla, Canal Zone, Panama, Caldera Island, Porto Bello Bay, Panama (A. H. Jennings).

Type no. 12055, U. S. N. M.

WYEOMYIA SYMMACHUS, new species

FEMALE.—Proboscis moderately long, somewhat swollen at the tip, black-scaled. Occiput dark-scaled, the eyes with a narrow white margin, interrupted towards the vertex. Prothoracic lobes dark-scaled, the tips silvery white, as also the basal portion. Abdomen black-scaled, with bluish iridescence, white beneath, the colors separated on the sides in a straight line. Legs bronzy brown, the femora pale beneath; hind tarsi with the last two joints white-scaled beneath nearly to their apices; mid tarsi with the apical three-fourths of the second, and all of the succeeding joints silvery white-scaled beneath; fore legs dark. Wing-scales broad.

MALE.—Unknown.

Two specimens, bred from larvæ in water in bamboo joints, Tabernilla, Canal Zone, Panama (A. H. Jennings).

Type no. 12056, U. S. N. M.

WYEOMYIA ABRACHYS, new species

FEMALE.—Proboscis rather long, distinctly swollen towards the tip. Occiput dark-scaled, the eyes with a narrow whitish margin. Prothoracic lobes black above, the tips shining but not distinctly white, the lower part white-scaled. Abdomen dark above, white below, the colors separated on the sides in a straight line. Wing-scales narrow, spatulate, broader and denser at the tip. Legs black-scaled, the mid tarsi with the fourth joint distinctly white beneath in the female, the third and fourth joints white in the male, hind tarsi with white bands at the bases of the second and third joints, the fourth and fifth white below except at tip.

Three specimens, Caldera Island, Porto Bello Bay, Panama (A. H. Jennings).

Type no. 12133, U. S. N. M.

WYEOMYIA EUETHES, new species

FEMALE.—Proboscis rather short and stout, distinctly swollen at the tip. Occiput dark-scaled, the eyes with a narrow white margin. Prothoracic lobes dark, white below, without a distinct white tip. Abdomen dark above, white below, the colors separated on the sides in a straight line. Wing-scales large, ovate. Legs black, the mid tarsi with the tip of the second, the third to fifth joints white below, hind tarsi with the fourth and fifth joints white below except at tip.

One specimen, Tabernilla, Canal Zone, Panama (A. Busck).

Type no. 12134, U. S. N. M.

WYEOMYIA CHRESTA, new species

FEMALE.—Proboscis rather long and slender, distinctly swollen at the tip. Occiput dark-scaled, the eyes with a narrow white margin, interrupted subdorsally. Prothoracic lobes dark, white below; abdominal colors separated on the sides in a straight line. Wing-scales large, ovate. Legs black, the mid tarsi with tip of second joint, third and fourth white below, hind tarsi with bases of second and third narrowly white, fourth and fifth white below except at tips.

Two specimens, Tabernilla, Canal Zone, Panama (A. Busck).

Type no. 12135, U. S. N. M.

WYEOMYIA ANTOINETTA, new species

Proboscis moderate, distinctly swollen at the apex. Occiput dark-scaled, obscurely iridescent, the margin of the eyes not white-scaled, a silvery spot on the occiput and on sides below. Prothoracic lobes dark-scaled, with a violaceous luster, the apex and base silvery-scaled. Abdomen dark-scaled above with obscure bronzy and blue luster, white-scaled beneath, the colors separated on the sides in a straight line. Legs dark-scaled with a paler bronzy luster beneath, mid tarsi with the outer half of the second and all of the last three joints silver-white-scaled outwardly, hind tarsi unmarked. Wing-scales narrow. Length, 3 mm.

One specimen, Estero, Florida (J. B. Van Duzee), bred from larvæ in bromeliaceous plants.

Type no. 12179, U. S. N. M.

WYEOMYIA CONCHITA, new species

Proboscis moderate, distinctly swollen towards the apex. Occiput dark-scaled with bronzy and iridescent luster, a patch of silver scales on the vertex. Prothoracic lobes entirely silver-scaled. Abdomen dark-scaled above with faint bronzy and blue luster, the tip silver-scaled, venter white-scaled, the colors separated on the sides in a straight line. Legs dark-scaled, paler with brassy luster beneath, the mid tarsi white beneath on the tip of the second and the last three joints, hind tarsi broadly white-marked at the bases of all the joints beneath. Wing-scales narrow. Length, 2.5 mm.

Fourteen specimens, San Antonio de los Baños, Cuba (J. H. Pazos).

Type no. 12180, U. S. N. M.

WYEOMYIA DRAPETES, new species

Proboscis short, swollen at the tip. Occiput dark-scaled, the eyes with a margin of white scales, widening into a spot on the vertex. Palpi white-tipped. Prothoracic lobes dark-scaled with silvery white tip and base. Abdomen dark-scaled above, white beneath, the colors separated on the sides in a straight line. Legs dark-scaled. Wing-scales short, dense and cuneiform on the forks of the second, third, and fourth veins. Length, 3.5 mm.

Male similar to the female, the palpi entirely white-scaled; mid tarsi with the outer half of the second and the last three joints pale brassy without.

Three specimens, San Juan, Trinidad, British West Indies, larvæ in bamboo stumps, associated with *Sabethes undosus* Coq. (A. Busck).

Type no. 12181, U. S. N. M.

WYEOMYIA CARA, new species

Proboscis rather short, swollen towards the apex. Occiput clothed with dark scales, a white margin along the eyes and a longitudinal stripe on the vertex. Prothoracic lobes blackish with dark brown and violet reflections. Abdomen with the colors separated on the sides in a straight line. Wing-scales broadly ovate, their tips obliquely subtruncate, dense on the second and fourth veins. Legs black with bronzy and blue reflections, the tibiæ and tarsi with pale brassy luster beneath, the last two joints of the hind tarsi with silvery luster beneath. Length, 3.5 mm.

One specimen, Trinidad, British West Indies, June, 1905 (A. Busck).

Type no. 12182, U. S. N. M.

WYEOMYIA CACODELA, new species

Proboscis moderate, swollen towards the apex. Occiput clothed with dark scales, a narrow white margin along the eyes. Prothoracic lobes blackish with dull bronzy and blue reflection. Abdomen with the colors separated on the sides in a straight line. Wing-scales broadly ovate, their tips obliquely subtruncate. Legs black with bronzy and blue reflections, without white markings in the female, the male with the mid legs brassy beneath, the hind tarsi with the last two joints silvery white beneath. Length, 3.3 mm.

Three specimens, selected from a series, Tabernilla, Canal Zone, Panama, bred from larvæ in flower-cups of *Heliconia* (A. Busck); Gorgona, Canal Zone, Panama, from flowers of *Heliconia* (A. H. Jennings).

Type no. 12183, U. S. N. M.

This species is very similar to *W. galoa* D. and K., and was so identified by us for Mr. Busck, and published in his report on the mosquitoes of the Canal Zone. The hind feet of the male, however, are differently colored.

WYEOMYIA AGYRTES, new species

Proboscis rather short, swollen towards the apex. Occiput clothed with dark scales, the eyes with a narrow white margin. Prothoracic lobes blackish, a white patch below. Abdomen with the colors separated on the sides in a straight line. Wing-scales broadly ovate, their tips obliquely subtruncate, dense. Legs black with bronzy and blue reflections, front and mid legs bright bronzy beneath, without white markings in the female. Length, 3.5 mm.

One specimen, Tabernilla, Canal Zone, Panama, bred from larvæ taken May 16, 1905, in water in a bamboo stump (A. Busck).

Type no. 12184, U. S. N. M.

WYEOMYIA HAPLA, new species

FEMALE.—Proboscis very long and slender, the tip slightly enlarged; black. Palpi short, black-scaled. Occiput dark-scaled, with iridescent reflections in some lights. Prothoracic lobes large, prominent, clothed with dark blue scarcely metallic scales and with numerous coarse black bristles along the margin. Mesonotum dark-scaled with slightly metallic luster, predominatingly of a dull green color; scutellum clothed with similar scales. Abdomen black-scaled above, with faint greenish and bluish luster, white-scaled beneath, the colors separated on the sides in a straight line. Legs black-scaled with

greenish luster, the mid tarsi white-scaled on the fourth joint below, the hind tarsi at base of second and third, the fourth and fifth joints white below except at the tips.

One specimen, Caldera Island, Porto Bello Bay, Panama, bred from a larva in water between the leaves of a bromeliaceous plant (A. H. Jennings).

Type no. 12102, U. S. N. M.

Described from one of the types of *W. dymodora* D. and K., which was wrongly included and does not fit the description. The Fort San Felipe specimen remains as the type.

LIMATUS CACOPHRADES, new species

FEMALE.—Occiput black with blue and green iridescence, a patch of golden yellow scales at the vertex. Prothoracic lobes golden. Mesonotum dark metallic violet-scaled with golden markings, a median wedge-shaped one anteriorly and a semicircular one before the root of the wing. Scutellum dark violet-scaled. Postscutellum bronzy brown-scaled, with blue, coppery, or golden reflections. Pleura clothed with golden scales above, silvery ones below. Abdomen with the dorsal vestiture black with coppery and blue reflections, the venter yellowish silvery, the colors indented on the sides. Legs bronzy black, with a brighter luster beneath.

MALE.—Proboscis with a tuft beyond the middle, the tip curved and slightly thickened by scales. Coloration as in the female, except that the mid and hind legs are white-marked beneath.

Twelve specimens, selected from a series, Tabernilla, Canal Zone, Panama (A. H. Jennings).

Type no. 12130, U. S. N. M.

This species was formerly identified as *L. durhami* Theobald, but differs therefrom most obviously in the color of the postscutellum.

LIMATUS METHYSTICUS, new species

Similar to *L. cacophrades* D. and K. Thorax with five irregular golden patches. Abdomen silvery beneath, the colors separated on the sides in a straight line. Middle legs with the last three tarsals silver white beneath in the female, white all around in the male; hind legs with the last joint silvery white beneath in both sexes. Proboscis of the male straight, slender, swollen at tip.

Four specimens, Port Limon, Costa Rica, September 28, 1905 (F. Knab).

Type no. 12131, U. S. N. M.