

Papéis Avulsos de Zoologia

NOTES ON SOME TYPES OF NEOTROPICAL ASILIDAE (DIPTERA), WITH DESCRIPTIONS OF THREE NEW SPECIES

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ABSTRACT

Examination of Asilidae types in London, Oxford and Paris revealed the following new synonymies and combinations: Lochites asiloides Bigot, 1878 equals Allopogon necans (Wiedemann, 1828); Dasypogon fulvus Bigot, 1878 equals Diogmites castaneus (Macquart, 1838); Dasypogon castigans Walker, 1851 is a Diogmites; Microstylum longipes Macquart, 1838 is a Phonicocleptes, and has priority over Dasypogon spectans Walker, 1851 and Phonicocleptes langei Carrera, 1947, which are proposed as synonyms; Dasypogon tripartitus Walker, 1854 is a Cleptomyia, and has priority over Cleptomyia bacillifera Carrera, 1949; Dasypogon flavipennis Macquart, 1846 is an Aphemartania; Aphemartania pritchardi Carrera, 1943 is a synonym of Aphemartania maculipennis (Macquart, 1838); Metapogon incertus Becker is a Cophura, and Cophura sundra Pritchard, 1943 is its synonym; Laphria albolineata Macquart, 1850 is a synonym of Anarmostus iopterus (Wiedemann, 1828). Aphemartania breviventris (Macquart, 1848) is redescribed, and three new species, Aczelia tsacasi, from Argentina, Alvarenga matilei, from Argentina, and Microstylum catastygnum, from French Guiana, are described.

During a short trip to England and France I have been able to study some of the types of Neotropical Asilidae described by Walker, Bigot, Macquart and Becker. This examination of types produced a number of new synonymies and combinations, some of which are published here. A part of these notes has been included in the catalogue of Neotropical Asilidae, prepared by Martin & Papavero (1970). Other results will be published in forthcoming revisions of several groups of South American Asilidae.

I want to express my sincere gratitude to Messrs. Harold Oldroyd, British Museum (Natural History), London (BMNH), D. M. Ackland and E. Taylor, Hope Museum, Oxford University, Oxford (OXF), and L. Matile and L. Tsacas, Muséum National d'Histoire Naturelle, Paris (MNHN), for their generous help and assistance, and for facilitating the study of the collections in their charge. Carrera's types of Asilidae compared with the descriptions of the types examined in the above mentioned Museums are deposited in the Museu de Zoologia da Universidade de São Paulo (MZUSP).

Subfamily Dasypogoninae

Tribe Dasypogonini

Allopogon necans (Wiedemann)

Dasypogon necans Wiedemann, 1828: 392. Type-locality: "Brazil"; Walker, 1854: 446.

Allopogon necans; Schiner, 1866: 678; Williston, 1891: 73; Kertész, 1909: 118; Carrera, 1949: 43.

Lochites asiloides Bigot, 1878: 426. Type-locality: "Brazil". N. syn.

The type ♂ of *Lochites asiloides* Bigot (OXF, n.º 197), agrees very well with the description of *Allopogon necans* (Wiedemann) as furnished by subsequent authors, and is therefore proposed here as a synonym.

Diogmites castaneus (Macquart), n. comb.

Dasypogon castaneus Macquart, 1838: 35 (1839: 151). Type-locality: Brazil, Pará (= Belém).

Dasypogon fulvus Bigot, 1878: 426. Type-locality: Brazil, Amazonia. N. syn.

Dasypogon fulvus Bigot has been included by some authors in *Senobasis*; Hull (1962: 233) placed it erroneously in *Blepharepium*. Is is clearly a synonym of *Diogmites castaneus* (Macquart). Type ♂ (OXF, n.º 198).

Diogmites castigans (Walker), n. comb.

Dasypogon castigans Walker, 1851: 89. Type-locality: "South America". Type ♀, BMNH.

Phonicocleptes longipes (Macquart), n. comb.

Microstilum longipes Macquart, 1838: 30 (1839: 146), pl. 2, fig. 4 (wing). Type-locality: Brazil, northern São Paulo; Williston, 1891: 70; Kertész, 1909: 152.

Dasypogon spectans Walker, 1851: 88. Type-locality: unknown. N. syn.

Dasypogon longipes; Walker, 1854: 440.

Phonicocleptes langei Carrera, 1947: 268. Type-locality: Brazil, Paraná, Vila Velha. N. syn.

Archilestris longipes; Hull, 1962: 141.

Hull's assignment of *longipes* Macquart to *Archilestris* is erroneous. The type ♂ of *Microstilum longipes* Macquart (MNHN, n.º 1463, type-locality: "Au nord de la Capitaineirie de St. Paul"), the type of *Dasypogon spectans* Walker, (BM, type-locality: "South America, ex coll. W. W. Saunders, 68-4"), and a paratype of *Phonicocleptes lan-*

gei Carrera, MZUSP, were examined. They belong to the same species. The genus is now represented in South America by only two species: *busiris* Lynch Arribálzaga, and *longipes* (Macquart).

***Cleptomyia tripartita* (Walker), n. comb.**

Dasypogon tripartitus Walker, 1854: 437. Type-locality: Brazil, Pará, Santarém.

Cleptomyia bacillifera Carrera, 1949: 125, figs. 5 (head), pl. 16, fig. 63 (head), 99 (antenna), 155, 157 (legs), 184 (wing). Type-locality: Brazil, Ceará, Russas. N. syn.

The type ♀ of *D. tripartitus* Walker (BMNH, type-locality: "Brazil, Santarem, ex coll. Bates 52.96"), was examined, as well as the types of *C. bacillifera* Carrera (MZUSP).

***Aphamartania breviventris* (Macquart)**

Dasypogon breviventris Macquart, 1848: 181 (1848: 21), pl. 1, fig. 13 (wing). Type-locality: "Rio Negro".

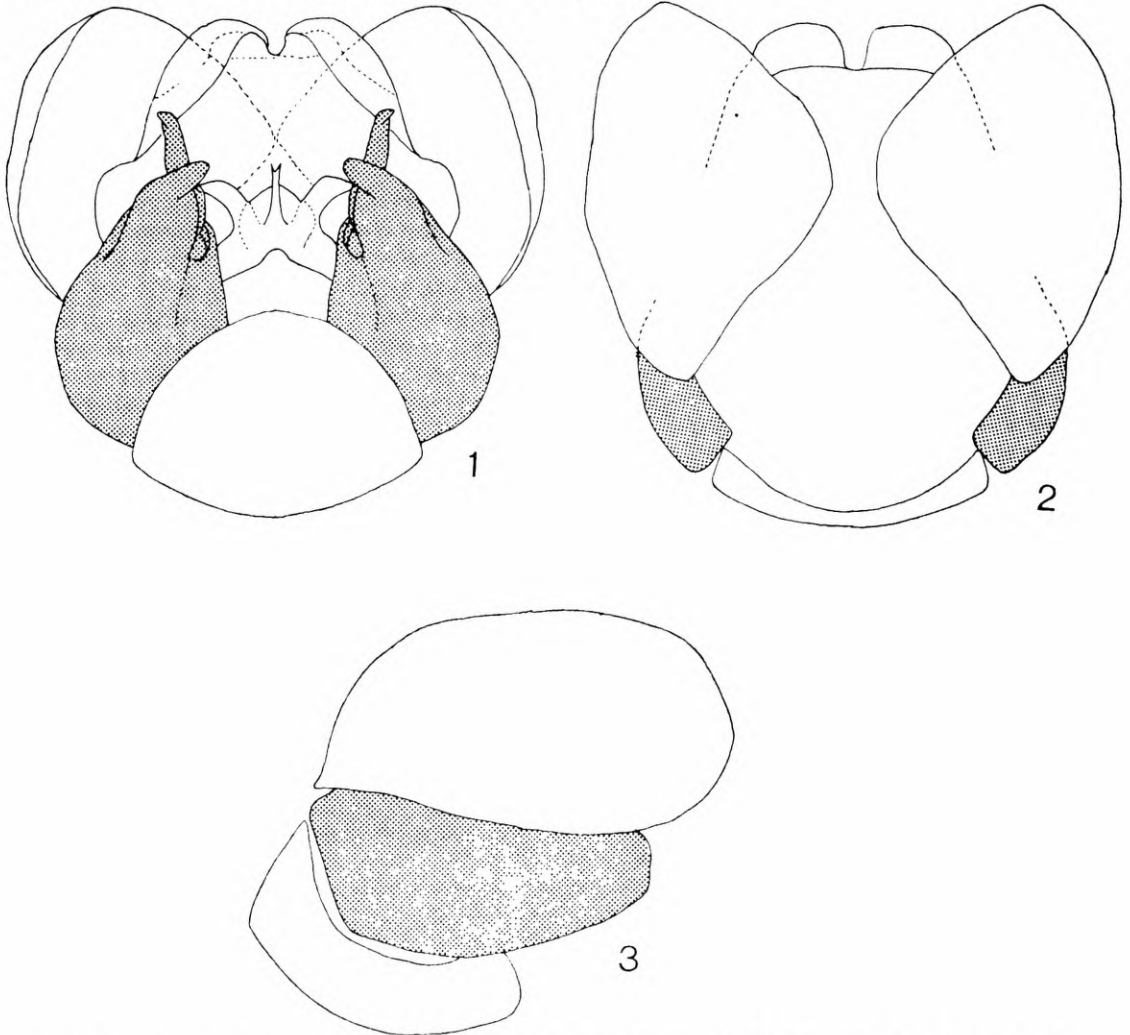
This species is very closely related to *A. maculipennis* (Macquart), differing in the genitalia — in *maculipennis* the aedeagus is strongly developed and very long. The type ♂ of *A. breviventris* (Macquart), (OXF, n.º 420), from "Rio Negro", is greased and molded. The face is black, antennae testaceous, as well as the face; mystax yellow, restricted to lower half of face; pile of antennae yellow; palpi and proboscis brown, with yellow hairs; occiput black, occipital bristles and hairs numerous, yellowish; pleura with some reddish areas. Coxae ferruginous, with yellow hairs; legs also ferruginous, with yellow hairs and dark-red bristles; tibiae and tarsi somewhat darker; posterior femora with a group of nearly 20 well-developed, strong, reddish bristles at the base, and with a long, characteristic pilosity on the ventral surface. Wings yellowish, slightly darker at the anterior margin. Abdomen shining black, the basal segment with long yellow hairs and bristles; tergites 3 to 6 with yellowish triangular spots at the lateral margins; hairs of abdomen yellow; genitalia black, hairs yellow; aedeagus short, differing in this respect from *A. maculipennis* (Macquart); hypandrium with 2 very strong, ivory-colored bristles on its central portion, and two smaller ones below the former; cerci ending in a very sharp, spine-like tip.

***Aphamartania flavipennis* (Macquart), n. comb.**

Dasypogon flavipennis Macquart, 1846: 192 (1846: 64), pl. 7, fig. 4 (wing). Type-locality: "Nouvelle Grenade".

Type ♀ (OXF, n.º 421), from "Nov. Gran.". Very similar to *A. breviventris* Macquart, but almost twice its length, and differing in the colors of face, palpi, proboscis, thorax and abdomen.

Face and front covered with yellowish pollinosity; front black; ocellar callosity and bristles yellow; antennae ferrugineous; mystax yellow, restricted to lower half of face; palpi dark-brown, with yellow hairs and bristles (bristles somewhat darker); proboscis black; occiput black, with fine gray tomentum; occipital bristles and beard yellowish-white. Mesonotum black on the disc, molded, so no stripes can be seen; humeri, lateral margins, and post-alar callosities reddish, covered with grey pollinosity; bristles and hairs yellow; pleura reddish, with grey pollinosity; scutellum black. Wings yellowish, especiall on the anterior margin; marginal, 4th posterior and anal cells open, the last one narrowly open. Abdomen shining black, lateral margins of tergites with reddish spots, which increase in size progressively towards the apex of the abdomen, the last 3 segments being almost entirely dark-red, with an indefinite black area on the middle; spines of the acanthophorites well-developed, brownish; hairs and bristles of the 3 proximal tergites yellow; venter yellow, with yellow hairs. Coxae of the same color of the pleura, with yellow hairs; legs as in *breviventris*; pilosity of legs black and yellow, bristles dark-reddish; posterior femur with strong bristles on the inferior surface, but without the dense patch of bristles characteristic of *breviventris*.



Aczelia tsacasi, sp. n. Male genitalia: 1, ventral view; 2, dorsal view; 3, lateral view.

Aphamartania maculipennis (Macquart)

Dasypogon maculipennis Macquart, 1838: 37 (1839: 153), pl. 3, fig. 8 (♂ genitalia). Type-locality: "Brazil, western Minas Gerais".

Aphamartania pritchardi Carrera, 1943: 120, pl. 10 (whole insect). Type-locality: Brazil, Paraná, Curitiba. N. syn.

The type ♂ of *Dasypogon maculipennis* Macquart (MNHN, n.º 1470, type-locality: "Ouest de la Capt. de Mines") was examined, as well as the type ♂ of *A. pritchardi* Carrera, in the MZUSP. They undoubtedly belong to the same species. The excessive development of the male aedeagus renders this species the most characteristic of the genus.

Cophura incerta (Becker), n. comb.

Metapogon incertus Becker, 1919: 165. Type-locality: Ecuador, Casitagua, 3512 m; Loja, 2220 m; Cuenca, 2532 m.

Cophura sundra Pritchard, 1943: 295. Type-locality: Ecuador, Pondoá. N. syn.

A ♂ syntype of *Metapogon incertus* Becker from Ecuador, Casitagua, 3500 m, 1903, P. Rivet, was selected by me as the lectotype of the species; the remaining 3 ♂ and 2 ♀ from the same locality of the lectotype, and 1 ♀ from Ecuador, Cuenca, 1905, G. Rivet, were designated paralectotypes. The syntype from Ecuador, Loja, 1905, G. Rivet, is an *Holcocephala*, as had already been pointed out by Martin & Papavero (1970). The specimens of *incertus* agree remarkably well with Pritchard's description of *Cophura sundra*, and run to the same place in the key presented by that author. I therefore propose their synonymy.

Azelia tsacasi, sp. n.

♂ — body length: 12 mm; wing length: 8 mm.

Face yellowish; front yellowish immediately above insertion of antennae, greyish on the rest; both face and front densely covered by very fine greyish-white pollinosity; ocellar callosity also greyish-white pollinose, with 2 black bristles; small bristles of the front and mystax black; antennae ochre, the 3rd segment blackish, hairs black; occiput black, grey pollinose, with white bristles; beard scarce, white; palpi ochraceous, with bristles of the same color, sometimes darker; base of proboscis ochraceous, black on the apex, with scarce yellow hairs (in some specimens the proboscis is uniformly ochraceous).

Pronotum reddish, with a longitudinal, central, black stripe, and long white hairs, lateral bristles black; mesonotum reddish on the anterior and lateral margins, the disc with 3 indistinct black stripes, separated by yellowish pollinosity; other parts of mesonotum with greyish pollen; scutellum black on disc, reddish in the margins, densely covered with greyish pollinosity; metanotum black, the lateral callosities reddish, greyish pollinose; pleura reddish, the mesopleura and hypopleura blackish, densely grey pollinose; pilosity of thorax reduced, black on the black portions, and reddish on the red markings; bristles black.

Wings yellowish; halteres pale yellow.

Coxae densely greyish pollinose, with reddish areas, more or less indefinite, especially in the anterior coxae, pile white; femora ochraceous, the dorsal surface of the three femora blackish, as well as the ventral surface of the median and posterior femora; pile and bristles black; tibiae ochraceous, the apical third dark brown, the tibiae with hairs and bristles black, and dense yellowish pilosity on the apex, in the ventral surface; tarsi with the segments ochraceous at the base, blackish on the apex (the anterior tarsi less distinctly so); claws black, pulvilli ochraceous.

Abdomen black, the lateral margins of all tergites with a wide reddish stripe (of same color as the mesonotum), greyish pollinose; posterior margin of tergites 1-4 with a narrow whitish stripe (in some specimens the anterior margin of tergites 2-5 is yellowish pollinose); pilosity black, with some whitish hairs on the lateral margins of tergites; venter ochraceous; some sternites darker, densely yellowish pollinose, pilosity black; genitalia (Figs. 1-3) ochraceous, the margins of the segments black, with black pilosity.

Holotype ♂, from Argentina, Santiago del Estero, Río Salado, Avelar, XII.1909 (E. R. Wagner), 1 paratype ♀, Argentina, Santiago del Estero, La Palisa del Bracho, 20 km NNW of Icaño, Laguna Mamaita, 1909 (E. R. Wagner), in the MNHN; 1 paratype ♂, Argentina, Santiago del Estero, Río Salado, near Icaño, 1904 (E. R. Wagner) and 1 paratype ♀, same data as holotype, in the MZUSP.

Azelia tsacasi, sp. n., differs from *argentina* (Wulp) in the color of the abdomen and wing (cf. Carrera, 1955). The name of the species is a homage to Dr. L. Tsacas, the distinguished student of Asilidae.

Alvarenga matilei, sp. n.

♂ — body length: 7 mm; wing length: 5 mm.

Front, ocellar callosity, and inferior half of face densely covered with greyish-white tomentum; superior half of face, and a narrow stripe above insertion of antennae, shining black; pilosity of face dense and long, white, extending from the oral margin to the base of the antennae; occiput black, greyish pollinose, with white bristles; ocellar callosity with long white bristles; first antennal segment black, second yellowish, the third is missing; hairs yellowish; palpi and proboscis black, with dark yellow hairs.

Thorax black, scutellum reddish; pronotum, mesonotum, superior half of propleura, mesopleura, hypopleura, scutellum, and metanotum, with dense greyish tomentum; pilosity long and dense of mesonotum greyish on the anterior surface and golden in the rest and in the scutellum; other parts of the pleura shining black.

Coxae shining black, the posterior pair with greyish-silvery tomentum, pilosity long, white; trochanters black; femora reddish-yellow, the anterior pair with a weak blackish spot on the basal fourth; pilosity yellowish-white; tibiae reddish-yellow, shining black on the apical third; pilosity and bristles yellowish-white; tarsi shining black, with whitish bristles; claws black, with yellow base; pulvilli yellow.

Wings darkened on the basal two-thirds, especially along the veins; anal cell and posterior border of wing hyaline; halteres yellow.

Abdomen shining, ochraceous, except in the anterior margin of tergite 1 and the lateral margins of the remaining tergites, which are black; pilosity scarce, yellowish; venter darker than the dorsum, diffusely black, with long whitish pilosity; genitalia black, with long, greyish-white pilosity.

♀ — differs from the male in the larger size; tomentum of head and thorax golden; bristles of face golden; antennae entirely yellowish-ochraceous, with very fine golden pollinosity; posterior margin of tergites 6 and 7 entirely shining black; spines of acanthophorites ochraceous.

Holotype ♂, Argentina, Chaco de Santiago del Estero, margins of Río Salado, near Icaño, 1904 (E. R. Wagner), and 1 paratype ♀, Argentina, Santiago del Estero, margins of Río Salado, Averias, 1909 (E. R. Wagner), in the MNHN; 1 paratype ♀, same locality (Averias), 1914 (E. R. Wagner), in the MZUSP.

This is the second species of *Alvarenga* Carrera known up to the present, and differs from the type-species, *icarius* Carrera (1960) in several characters of coloration. This species is dedicated to Dr. L. Matile.

Tribe Stenopogonini

Genus *Microstylum* Macquart

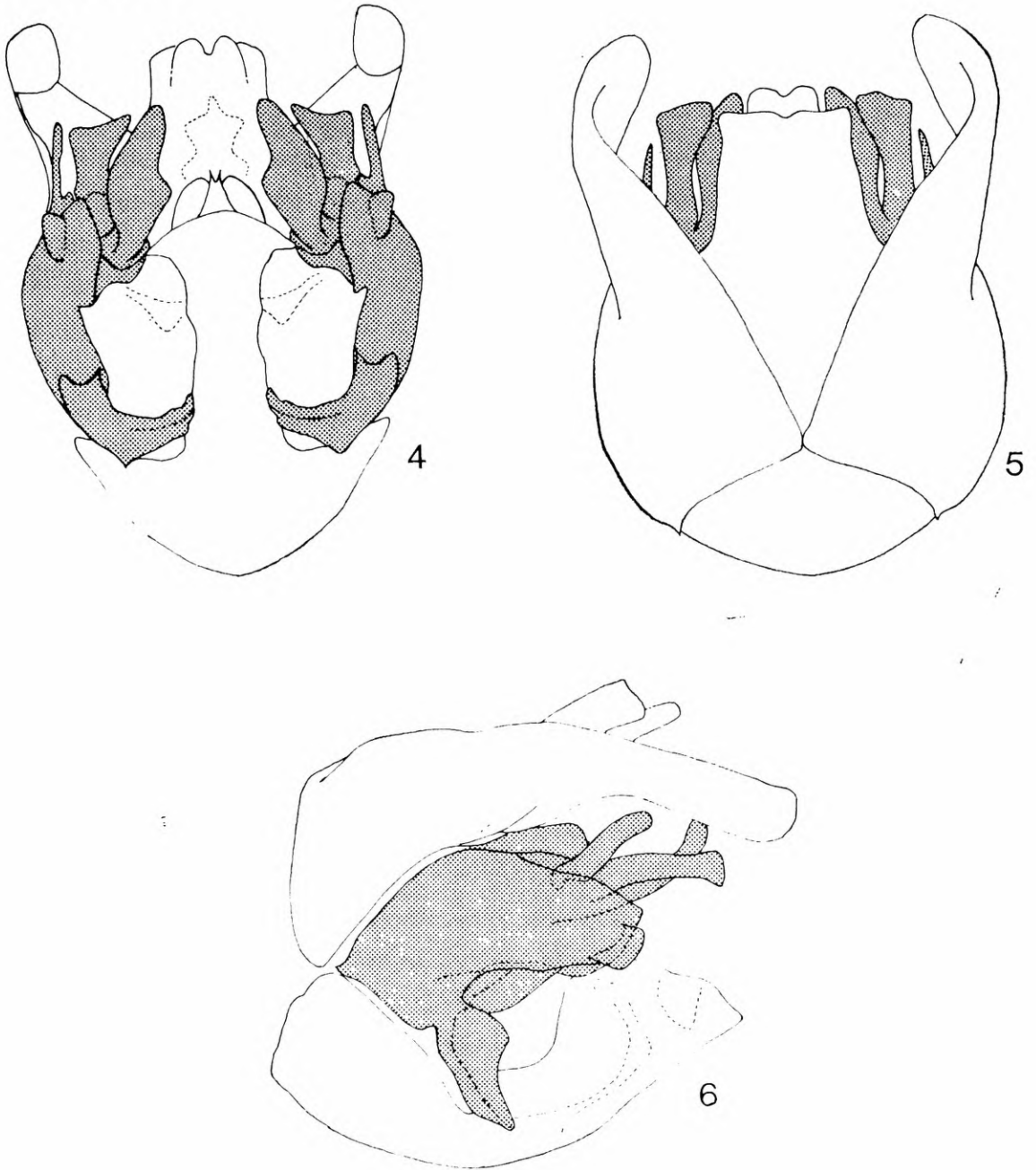
The genus *Microstylum* was represented in the Americas by 4 species, *galactodes* Loew, *mexicanus* Martin, *morosum* Loew and *fulvigaster* Bigot. The genus was known only from the United States (Texas, Kansas) and Mexico. A very interesting new species from French Guiana, the first to be found in South America, belonging to the collection of the Muséum National d'Histoire Naturelle, Paris, is here described. The American species of *Microstylum* can be recognized through the following key, modified from Martin (1960):

1. *Mystax* black 2
Mystax pale 3
2. Wings more or less milky white (Texas, Kansas, New Mexico);
length, 30-40 mm *galactodes* Loew
Wings blackened; (French Guiana); length, 28 mm
..... *catastygnum*, sp. n.
3. Tibiae and antennae reddish-yellow; reddish abdomen with black
markings; (Mexico, Nuevo León); length, 20-27 mm
..... *mexicanum* Martin
Tibiae and antennae brown or black; without black markings 4
4. Bristles of femora and tibiae reddish brown; halteres brownish-
yellow; (Texas); length, 35-40 mm *morosum* Loew
Bristles of femora and tibiae whitish; halteres dark testaceous;
(Mexico); length, 28 mm *fulvigaster* Bigot

***Microstylum catastygnum*, sp. n.**

♂ — body length: 28 mm; wing length: 20 mm.

Front black, with the sides narrowly pollinose, greyish-brown; frontal bristles black; face densely greyish-white tomentose; mystax black, with a few white hairs intermingled; antenna black, with black bristles; third antennal segment missing; palpi black, with black bristles; proboscis long, black; beard white; occiput black, with black bristles and white hairs.



Microstylum catastygnum, sp. n. Male genitalia: 4, ventral view; 5, dorsal view; 6, lateral view.

Thorax entirely black, greyish pollinose; bristles black; pilosity of pleura intermingled, white and black; humeral callosities and area in front of post-alar calli reddish.

Coxae black, greyish pollinose, with long white and black hairs; remaining of legs reddish-brown (more or less violet); hairs and bristles black; pulvilli brownish; claws black.

Wings entirely blackened; halteres ochraceous.

Abdomen black, with the posterior margins of tergites showing a narrow reddish stripe, and the lateral margins being greyish pollinose; pilosity black, white at the lateral margins; venter as the dorsum, with long white pilosity; genitalia (Figs. 4-6) black, with black bristles.

Holotype ♂, from French Guiana, Maroni, in the MNHN.

Subfamily Asilinae

Tribe Asilini

Anarmostus iopterus (Wiedemann)

Asilus iopterus Wiedemann, 1828: 438. Type-locality: "Brazil".

Anarmostus iopterus; Loew, 1860: 142.

Laphria albolineata Macquart, 1850: 378 (1850: 74). Type-locality: Bolivia, Mojos (= Dept.^o Santa Cruz). N. syn.

Examination of the type of *Laphria albolineata* Macquart (MNHN, n.^o 1497), proved that this species is a synonym of the highly characteristic *Anarmostus iopterus* (Wiedemann).

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