Insecta Amapaensia. — Diptera: Tabanidae

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(With 5 text-figures)

The Tabanidae discussed below were collected, unless otherwise specified, by Dr. John Lane and Sr. Karol Lenko, on several trips to the Territory of Amapá, Brasil. The general aspect of the area and the conditions under which the collection were made are the object of a future paper in preparation by Dr. Lane. Types of the new species and specimens of all species have been returned to Dr. Lane; paratypes and duplicate specimens, where available, are to be deposited in the Museum of Comparative Zoology, Cambridge, Massachusetts.

Of the 41 species recorded, 4 appear to be new and are here described, while a new subgenus has been erected for a long known species. As was to be expected, all the remaining species have been reported previously from the Amazon basin or the neighboring Guianas. The preponderance of *Tabaninae,* 34 species, and the poor representation of *Pangoniinae,* three species, probably reflects the lack of year-round collecting, as most species of *Pangoniinae* seem to have a restricted flight season.

The subfamilial and tribal classification adopted here is that of Mackerras (1955, Aust. J. Zool., 3 (3): 439-511). References are confined to the original description unless the status of the species has changed since the appearance of Kröber's catalogue (1934, Rev. Ent., 4 (2-3): 222-276, 291-333), where all the described species are listed with full references.

Pangoniinae: Pangoniini

Esenbeckia illota guianense Fairchild

1942, Ann. Ent. Soc. America, 35 (2): 196.

1 female, 2 males, Serra do Navio, 2-X-1957, 20-X-1957; 1 female, Rio Felicio, 3-VIII-1959. In Panama another subspecies flies only from January to March, during the dry season.

Scionini

Fidena pseudoaurimaculata Lutz

1909, Zool. Jahrb., Suppl. 10 (4): 643, Pl. 1, fig. 18.

5 females, Serra do Navio, Sept. 1959, R. Bicelli coll.; 2 females, Serra do Navio, 23-IX-1957; 1 female, Pôrto Platon, 20-IX-1957; 1 female, Mazagão, Jari ao V. Nova, 1958, Damasceno coll. These specimens agree well with Amazonian specimens so determined in the Lutz collection, with other specimens so determined by Barretto and Bequaert, and with the published figure. There is no published description of this species other than the figure, and since no specific locality was given, it was impossible to recognize the specimen from which the figure was made, even if it still exists in the Lutz collection. Dr. Lane writes that this species was very abundant during Sept. and Oct. 1959.

Elaphella cervus Wiedemann

1828, Auss. Zweifl. Ins. 1: 94 (Pangonia). — Kröber, 1934, Rev. Ent., 4 (2): 235.

One female, Anicoí, Rio Amapari, 26-VI-1959; 1 female, Serra do Navio, X-59, Bicelli coll.

Chrysopinae: Chrysopini

Chrysops calogastra Schiner

1868, Reise Novara, Dipt. p.103.

Five females, Rio Felício, 4-VIII-1957.

Chrysops incisa Macquart

1846, Dipt. Exot. Suppl. 1: 173, Pl. 4, fig. 12. — Philip, 1955, Rev. Brasil. Ent., 3: 93-94.
Chrysops brasiliensis Ricardo, 1901, Ann. Mag. Nat. Hist. (7) 8: 314.

Three females, Serra do Navio, 11, 20, and 21-X-1957; 3 females, Serra do Navio, VIII-59, Bicelli coll.

Chrysops laeta sublaeta Philip

1955, Ent. Medd., 27: 72-73. *Chrysops laeta* auct., *nec* Fabricius 1805.

Three females, Pôrto Platon, 17, 20 and 21-IX-1957.

Chrysops variegata De Geer

1766, Mem. Hist. Ins., 6: 227-230, Pl. 30, fig. 7 (*Tabanus*). — Philip, 1952, Ann. Ent. Soc. America, 45 (2): 312-313.

Two females, Serra do Navio, 12-X-1957; 1 female, Serra do Navio, XII-59, Bicelli coll. The specimens seem typical and not one of the variously named varieties of uncertain status.

Tabaninae: Diachlorini

Diachlorus bicinctus Fabricius

1805, Syst. Antliatorum, p.102.

A single female, Alto Rio Amapari, 8-VII-1959.

Diachlorus curvipes Fabricius

1805, Syst. Antliatorum, p.107.

One female, Serra do Navio, 25-IX-1957; 3 females, Sant'Ana, 18-X-1957; 2 females, Rio Amapari, 8 and 10-VIII-1959; 3 females, Rio Felício, 28-VII-1959.

Diachlorus fuscistigma Lutz

1913, Mem. Inst. Osw. Cruz, 5: 148, Pl. 12, fig. 9.

One male, four females, Serra do Navio, 30-IX-1957; 14 and 24-X-1957. 13 females, Rio Felício, 28 and 31-VII-1959. 1 female, Serra do Navio, X-59, Bicelli coll. One specimen compared and found in agreement with Lutz' type in Inst. Oswaldo Cruz.

The male listed above has the following characters and has been labelled Neoallotype. Eyes bare, holoptic, the large facets not greatly enlarged nor sharply demarcated from the small facets; in life with a very broad green band in the lower half of eye which does not reach the hind margin of eye. A small tubercle sunk between eyes at vertex. Antennae as in female, though the first segment more markedly inflated, subshiny. Subcallus yellow, pollinose; frontoclypeus black, shiny in middle, thinly pollinose laterally. Palpi greatly inflated, porrect, acutely pointed, black and shiny with sparse yellowish hairs. Thorax, legs and wings as in female. Abdomen yellow, subshiny, mainly sparsely long black haired on first two segments, yellow haired on remainder; the sixth tergite black, without the middorsal yellow stripe found in female.

This male differs conspicuously from previously described males of *Diachlorus* (*ferrugatus, curvipes, jobbinsi, conspicuus*) in the lack of markedly enlarged upper eye facets and in the greatly inflated and shiny palpi.

Acanthocera marginalis Walker

1854, List Dipt. Insect. Brit. Mus., 5, Suppl. 1, p.268, Not *marginalis* Kröber, 1928.
Beiheft. Archiv. Schiffs-Tropen. Hyg., 32 (2): 86, fig. 5.
Acanthocera formosa Kröber, 1930, Zool. Anz., 90:79.

Five females, Serra do Navio, 26-IX-1957; 1 and 24-X-1957; IX-1959, Bicelli coll.; 3 females, Rio Felicio, 4, 5 and 31-VII-1959. 1 female, Serra do Navio, I-60, Bicelli coll.

Acanthocera polistiformis, n. sp.

(Fig. 1)

A large slender rufous fly with dark brown wings, greatly elongated antennae and somewhat constricted abdomen.

Male. Length 16 mm., of wing 14 mm. Eyes bare, the large facets clearly demarcated from the small and occupying about two-thirds of eye area. Frontal triangle elongate, reaching half way to vertex, so that the eyes are in contact along only about half their frontal length. Vertex deeply sunken, without tubercle, the post-ocular margin of the head with a fringe of long, curved golden red hairs; subcallus thinly grey pollinose, rather inflated. Frontoclypeus and genae quite inflated, reddish yellow, very thinly yellowish grey pollinose, nearly bare. Beard sparse and long, orange yellow. Antennae exceedingly long, equalling thorax and scutellum together, the segments, beginning with the first, in the proportion of 4-3-6 in length. First segment bright orange brown, subshiny, sparsely clothed with short yellow hairs, cylindrical, about four times as long as greatest width. Second segment darker brown, yellow haired, about three times as long as greatest width. Third segment longer than either of the preceding, blackish pollinose with a few scattered dark hairs, the basal plate shorter than style and with a barely perceptible dorsal hump near its base. Annuli of style evenly decreasing in diameter, the terminal segment sharply pointed. Palpi greatly inflated, shiny, yellow and clothed with long yellow hairs. Proboscis brown, short, both theca and labella shiny sclerotized.

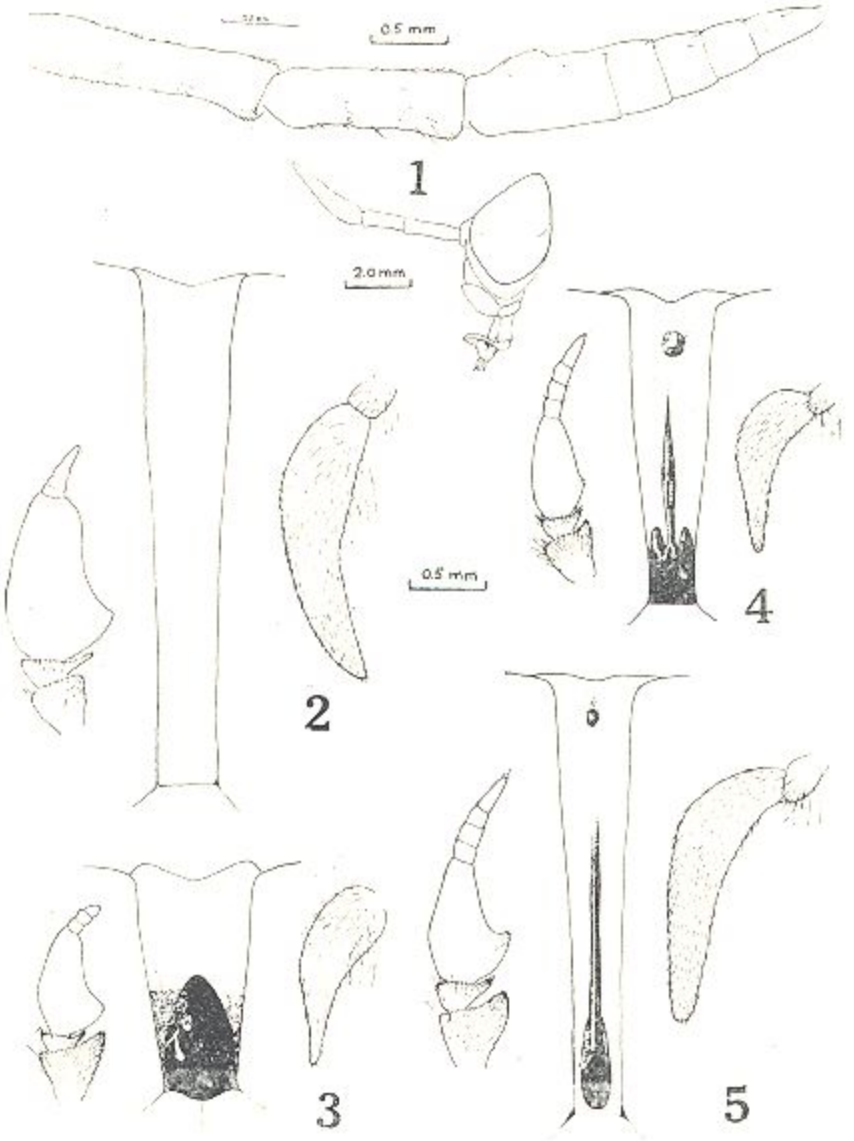

Fig. 1. *Acanthocera pollistiformis*, n. sp. Head of male holotype in side view and antenna of same. — Fig. 2. *Chlorotabanus leucochloras* n. sp. Frons, antenna and palpus of holotype female. Scale line indicates magnification for this and the following figures. — Fig. 3. *Stenotabanus (Phorcotabanus) cinereus* Wied. Frons, antenna and palpus of female. — Fig. 4. *Stenotabanus cretatus* n. sp. Frons, antenna and palpus of holotype female. — Fig. 5. *Tabanus amapaensis* n. sp. Frons, antenna and palpus of holotype female.

Thorax bright orange brown, sparsely orange yellow-haired, the pleura thinly orange pollinose, notum and scutellum shiny. Wings deep brown, almost black, slightly paler at apex and hind

margin. Costa and base and apex of radius red brown, other veins black. Venation normal, no appendix on fork of third vein. Legs bright reddish orange, clothed with orange hairs. No fringe on hind tibiae. Abdomen unicolorous bright reddish orange, the first segment somewhat inflated, shiny, paler and clothed with longer, more erect and paler hairs than the remainder. The inflated first segment creates the impression of a constriction in the abdomen between the first and second segments. Second to last segments strongly arched dorsally, flat or concave ventrally, all clothed with short reddish orange hairs.

Holotype male, Pôrto Platon, Terr. Amapá, Brasil, 18 Sept. 1957, J. Lane coll. To be deposited in the Department of Parasitology of the Faculdade de Higiene, University of S. Paulo, Brasil.

This interesting species differs in several respects from the known species of *Acanthocera*, especially in the more elongate first and second antennal segments and the proportionately short, compact and relatively hairless third segment, being quite reminiscent in this respect of the African *Sphecodemyia* of the *Chrysopinae*. Nevertheless, there are not any firm characters which would justify the erection of a new category to receive it in spite of its considerably different appearance from its congeners. The finding of the female might, of course, cause a revision in this conclusion. The insect shows a remarkable superficial resemblance to one of the large brown *Polistes* wasps. Dr. Lane informs me that the specimen was taken resting on vegetation close to the ground in a region of relatively open scrub covered country.

Dichelacera (Dichelacera) cervicornis Fabricius

1805, Syst. Antliatorum, p.100.

One female, Anicoi, Rio Amapari, 26-VI-1959; 1 female, Rio Amapari, Km. 170, 2-VII-1959; 3 females, Rio Amapari, 8 and 10-VII-1959; 1 female, Rio Felicio, 4-VIII-1959.

Dichelacera (Dichelacera) varia Wiedemann

1828, Auss. Zweifl. Insect., 1: 89.

Five females, Mazagão, Jari ao V. Nova, 1958, Damasceno coll.

Dichelacera testacea Macquart

1845, Dipt. Exot., Suppl. 1: 29, Pl. 3, fig. 10.

Two females, Rio Felicio, 4-VII-1959; 1 ♀, Anicoí, Rio Amapari, 25-VI-1959. These specimens agree closely with a

homotype from Venezuela, except for being darker, more blackish, throughout.

Chlorotabanus (Chlorotabanus) inanis Fabricius

1794, Ent. Syst., 4: 368. — Philip and Fairchild, 1956, Ann. Ent. Soc. America, 49 (4): 316, 317, fig. 1.

Three females, Pôrto Platon, 18, 19 and 20-IX-1957; 2 females, Sant'Ana, 8 and 17-X-1957; 1 female, Rio Felício, 28-VII-1957.

Chlorotabanus (Chlorotabanus) leucochlorus, n. sp.

(Fig. 2)

A rather large greenish fly with white pollinose thorax, narrow frons and unspotted wings.

Female. Length 15 mm., of wing 14 mm. Eyes black, probably without pattern. Frons about eight times as high as basal width, widened above, without trace of callus, snow white pollinose. Subcallus, frontoclypeus and genae snow white pollinose, the last with sparse silvery beard. Antennae green, the basal plate with a strong blunt dorsal angle, the plate 1.4 times as long as preatest breadth, 2.8 times as long as the short style. Palpi whitish yellow, inflated basally, clothed with pale yellow hairs. Proboscis with theca yellowish green, labella black, both shiny sclerotized.

Mesonotum and scutellum pale brown in ground color, snow white pollinose and silvery white haired. Pleura and sternum the same, more densely white haired. Legs yellowish green, yellow haired except for scattered black hairs towards apex of fore tibiae and a double fringe of black hairs on outer surface of hind tibiae, the black hairs continuing onto dorsal surface of hind tarsi. Wings yellowish hyaline, the costal cell dark yellowish, veins greenish yellow, except for slight darkening of cross veins. No clouds or spots nor appendix on third vein. Abdomen green, clothed with short yellow hairs, except at posterior margins of last two segments, which have longer black hairs.

Holotype female, Serra do Navio, Terr. Amapá, Brasil, 24 Oct. 1957 J. Lane coll. To be deposited in the Department

of Parasitology, Faculdade de Higiene, Universidade de S. Paulo, Brasil.

This species will key out to *Chl. inanis* Fab. in our key (Philip and Fairchild 1956). It is however, larger than any specimen of that species we have seen, has a largely black hind tibial fringe, a narrower, more convergent frons, and the thorax is wholly white pollinose and white haired, in marked contrast to the yellow haired abdomen. The antennae are much like some *inanis*, but the dorsal outline is even more sinuous, the style proportionately shorter. It has been compared with a series of five *inanis* from other localities in the Territorio de Amapá, as well as with specimens from most of the localities recorded for *inanis*, and appears to be clearly distinct.

Eutabanus pictus Kröber

1930, Zool. Anz., 86: 264, fig. 8. — Bequaert, 1939, Result. Sci. Croisier Nav. École Belge "Mercator", 2 (XV): 170.

A single female, Mazagão, Jari ao V. Nova, 1958, Damasceno coll. Kröber's original description was confirmed by Bequaert, although the latter's specimen was mislabelled as from West Africa. In addition to the characters mentioned by these authors — style of third antennal segment with only three annuli, bare subcallus, inflated fore tibiae and flattened and heavily fringed hind tibiae, etc. — the specimen at hand has the basicosta without setae, the labella unsclerotized, and the notopleural lobes bluntly conical, projecting very markedly laterally. The eyes appear to have been unicolorous in life. Though quite aberrant in several respects, it seems to be nearest *Stenotabanus* Lutz. It is quite possibly a tree-top species.

Stenotabanus cinereus Wiedemann

(Fig. 3)

1821, Dipt. Exot., 1: 84; 1828, Auss. Zweifl. Insect., 1: 167 (*Tabanus*). — Bequaert and Renjifo, 1946, Psyche, 53 (3-4): 75 (*Aegialomyia*).

Three females, Sant'Ana, 18-X-1957; 1 female, Pôrto Platon, 19-X-1957.

Bequaert and Renjifo placed the species in the subgenus *Aegialomyia*, but the eyes are sparsely short pilose (not visible under low magnification) while the style of antennae has only three annuli. There is no tubercle at vertex, the eyes have two

green bands in life and the basicosta lacks setae. The frons is markedly narrowed below with a large black callus as wide as frons and nearly twice as high as wide, while the frontoclypeus as well as genae bears dense long hairs. Placement in *Aegialomyia* was based largely on general resemblance to the grey or whitish coloration of this group, a character often found in species associated with sandy beaches. I believe, however, that this species is best placed in a separate subgenus of *Stenotabanus* which may be called *Phorcotabanus* subg. nov. (Gr. phorkos = grey). The subgenus is monotypic for *Tabanus cinereus* Wied. 1828, though I have seen another specimen from Sta. Catarina, unfortunately lacking antennae, which may belong here. It can be separated from *Eutabanus* Kröber, which also has but three annuli in the antennal style, by the inflated and cap-like first antennal segment, convergent frons with callus filling width of frons, slender tibiae, unmarked wings and normal notopleural lobes. From the subgenus *Brachytabanus* Fchld. *Phorcotabanus* can be separated by the narrower frons, larger and not transverse callus, and by lacking the bare and enlarged tentorial pits. *Brachytabanus* are small rather sparsely haired species with a prominent middorsal pale stripe on the abdomen and very wide frons.

Stenotabanus cretatus, n. sp.

(Fig. 4)

A slender black species with narrow convergent frons, white marked mesonotum and scutellum and black abdomen with large white patch on fourth tergite and white triangles on second, third and fifth tergites.

F e m a l e. Length 13 mm., of wing 10.5 mm. Eyes bare, purplish with two green bands, the lower markedly wider than the upper. Frons as figured, a little over six times as high as basal width, nearly twice as wide at vertex as at base, pale yellowish grey pollinose, the vertex with blackish pollinose triangle. Tubercle at vertex with distinct anterior ocellus, the lateral ocelli obsolete. Frontal callus black, higher than wide, with a slender spindle-shaped ridge above reaching nearly to tubercle. Subcallus yellowish grey pollinose, frontoclypeus and genae paler and less yellowish, the latter with sparse whitish hairs. Antennae dark blackish brown, black haired, the third

segment practically black. Palpi dark grey pollinose, black haired. Proboscis short, hardly exceeding palpi, both theca and labella unsclerotized, pollinose.

Mesonotum black with two broad white pollinose subdorsal stripes reaching from the whitish anterior margin to slightly beyond suture. Sides of notum, including notopleural lobes and hind margin white pollinose, as is scutellum. Hairs on dark portions are sparse, black; on pale portions denser and white. Pleura brown, grey pollinose, sparsely white-haired except for black hairs on lower half of notopleural lobes. Wings with basicosta bare, venation normal, no appendix on R_4, greyish hyaline, faintly brownish in marginal and submarginal cells. Legs with all femora reddish brown, the fore tibiae and tarsi and apices of mid and hind tibiae and tarsi blackish. Coxae pale, whitish haired. White hairs occur on inner bases of mid and hind femora only, remainder of legs with reddish to black hairs, depending on ground color. No hind tibial fringe. Terminal fore tarsal segment quite deeply cleft, Y-shaped as seen dorsally. Abdomen dark brown in ground color, black pollinose and black haired except for small whitish pollinose and pale haired middorsal triangles on second and third tergites, a large trapezoidal patch covering nearly half the lateral and all of the vertical width of fourth tergite and a narrow middorsal stripe on fifth tergite. Extreme lateral margins of first to fourth tergites are paler, with white hairs at least on postero-lateral angles. Beneath the abdomen is paler, reddish, greyish pollinose, sparsely white haired.

Holotype female, Rio Felício, Terr. Amapá, Brasil, 28-VII-1959, J. Lane coll. Two female paratypes, same locality, 28-VII-1959 and 5-VIII-1959. Holotype to be deposited in the Dept. of Parasitology, Faculdade de Higiene, Universidade de S. Paulo, Brasil, paratypes to be deposited in M.C.Z.

This little species does not seem clearly related to any described species. Its bare basicosta and well developed ocellar tubercle exclude it from *Tabanus* while the banded eyes rule out *Leucotabanus* in spite of a strong superficial resemblance. It seems best placed in *Stenotabanus* although it does not fit well into any of the proposed subgenera. The name is from Latin *cretatus* = marked with chalk.

Stenotabanus cajennensis Fabricius

1787, Mantissa Ins., 2: 355.

One female, Pôrto Platon, 20-IX-1957; 1 female, Serra do

Navio, 4-X-1957; 4 ♀, Mazagão, Jari ao V. Nova, 1958, Damasceno coll. 1 female, Serra do Navio, X-59, Bicelli coll.

Phaeotabanus obscuripilis Kröber

1934, Rev. Ent., 4 (3): 304, nom. nov.
Phaeotabanus aphanopterus var. *obscurihirtus* Kröber, 1930, Zool. Anz. 86: 284, fig. 6. Not Ricardo 1908, Ann. Mag. Nat. Hist., (8): 1: 374.

Two females, Serra do Navio, 23-X-1957.

Phaeotabanus fervens Linnaeus

1767, Syst. Nat., ed. XII, pt. 2, p.1000 (*Tabanus*). — Kröber, 1934, Rev. Ent. 4 (2): 272 (*Catachlorops*). — Philip, 1952, Ann. Ent. Soc. America. 45 (2): 312 (*Tabanus*).
Phaeotabanus semiflavus Kröber, 1930, Zool. Anz., 86: 288.

Two females, Serra do Navio, 1 and 11-X-1957; 1 female, Mazagão, Jari ao V. Nova, 1958, Damasceno coll.

Phaeotabanus prasiniventris Kröber

1929, Ann. Naturhist. Mus. Wien, 43: 252, fig. 10 (*Tabanus*).

Five females, Rio Felicio, 28 and 31-VII-1959.

Lepiselaga crassipes Fabricius

1805, Syst. Antliatorum, p.102.

1 female, Rio Felício, 8-VIII-1959.

Bolbodimyia brunneipennis Stone

1954, Ann. Ent. Soc. America, 47 (2): 250-251.

Seven females, Rio Felício, 28 to 31-VII-1959; 5 and 6-VIII-1959; IX-1959; 13 females, Rio Amapari 21, 23, 25 and 26-VI-1959; 8 and 10-VII-1959.

Leucotabanus exaestuans Linnaeus

1767, Syst. Nat. ed. XII, 2: 1000 (*Tabanus*). — Philip, 1952, Ann. Ent. Soc. America, 45 (2): 312.
Tabanus leucaspis Wiedemann, 1828, Auss. Zweifl. Insect. 1: 179.

Two females, Serra do Navio, IX-1957, R. Bicelli coll.; 1 female, Rio Amapari, 15 to 16-VII-1959.

Leucotabanus sp.

A single female, Serra do Navio, 25-IX-1957. This specimen keys out (Fairchild, 1953, Ann. Ent. Soc. America, 46 (2): 275), with *canithorax* Fchld., but differs in narrower frons, shape of callus and in details of coloration. It is, however, somewhat denuded, and it seems better to await more suitable material before deciding on its status.

Tabanini

Tabanus (Lophotabanus) fumomarginatus Hine

1920. Ohio. J. Sci., 20: 315. Not *fumomarginatus*, Fchld., 1951. Ann. Ent. Soc. America, 44 (3): 445-446, fig. 7.

A single female, Rio Amapari, 8-VII-1959. Central American specimens differ slightly but consistently from those from South America and have been recently described as *T. (L.) polyphemus* (Fairchild, 1958, Ann. Ent. Soc. America, 51 (6): 527-528).

Tabanus (Lophotabanus) xipe Kröber

1934. Rev. Ent., 4 (3): 296. Nom. nov. pro *T. surinamensis* Kröber 1929 (nec. Macquart 1828).

One female, Serra do Navio, 20-X-1957; 1 female, Anicoí, Rio Amapari, 26-VI-1959.

Tabanus (Macrocormus) amapaensis, n. sp.

(Fig. 5)

A slender chocolate brown species with narrow frons, ridge-like callus, black antennae, nearly clear wings, obscurely bicolored fore tibiae and slender white-haired middorsal triangles on tergites 1 to 5.

Female. Length 15 mm., of wing 12 mm. Eyes bare, no pattern revivable, probably greenish black in life. Frons narrow, about 8 times as high as basal width, a little less than twice as wide at vertex as at base, light yellowish brown pollinose. Frontal callus reddish brown, long oval, narrower than frons, rugose, merging above into a slender bare ridge reaching two-thirds the distance to vertex. Vertex with a small denuded spot surrounded by erect black hairs, but no true tubercle. Subcallus

pale yellowish grey pollinose, frontoclypeus and genae paler, nearly white, both with long nearly white hairs. First antennal segment reddish, strongly produced dorsally, black haired; second reddish, black haired, with a dorsal tooth; third reddish at extreme base otherwise deep black, as figured. Palpi pale yellowish, white pollinose and densely beset with short white hairs. Proboscis somewhat longer than palpi, blackish, both theca and labella pollinose, the latter without sclerotized plates.

Mesonotum chocolate brown, thinly greyish pollinose anteriorly, obscurely striped and with silvery semi-recumbent hairs forming indistinct longitudinal stripes, otherwise with sparse erect black hairs. Small and inconspicuous tufts of white hairs above wing bases. Scutellum concolorous, with mixed silvery and black hairs. No vestiges of a prescutellar black spot. Pleura and sternum pale grey pollinose, wholly white haired. Halteres yellowish brown, the knobs yellow. Wings with basicosta setose, all cells but anal widely open and a short appendix on fork of third vein. The wings are very faintly tinted brownish, strongest along the veins, but do not appear obviously infuscated. Costal cell hyaline; stigma yellow, veins black. Femora dark reddish, white haired. Tibiae slightly darker, mainly dark haired, the fore pair white haired on basal half, appearing obscurely picolored. Tarsi all blackish, red haired beneath. Hind tibiae with longer hairs forming two indistinct fringes. Abdomen chocolate brown, subshiny, the first two segments somewhat greyish pruinose when viewed from behind, clothed with short black hairs. Tergites 1 to 5 bear narrow median triangles of paler pollinosity beset with silvery white haired. Beneath, the abdomen is whitish pollinose, wholly sparsely white haired except for a patch of erect black hairs on last sternite.

Holotype female, Anicoí, Rio Amapari, Terr. Amapá, Brasil, 25-VI-59, J. Lane coll. To be deposited in the Department of Parasitology, Faculdade de Higiene, Universidade de S. Paulo, Brasil.

Paratypes: 1 female, same data as holotype; 4 females, Rio Felicio, Terr. Amapá, 18, 26-VII-59 and 8-VIII-59; 4 females, Rio Amapari, Terr. Amapá, 8-10-VII-59; 1 female, Rio sem nome, Rio Amapari, 15-16-VII-59, all J. Lane coll.; 1 female, Serra do Navio, VIII-59, R. Bicelli coll. To be deposited with the holotype and in M.C.Z. There is very little variation in the paratypes, either in color or size.

This species bears a strong resemblance to such species as *sorbillans* Wied., *rubripes*, Macq., *rubricauda* Philip and other species placed by Kröber (1930, 1934) in the subgenus *Macrocormus* Lutz.

From all of these it differs in its combination of nearly clear wings, non-coarctate cell R_5, relatively short appendix on fork of third vein, almost wholly jet black third antennal segments and unicolorous eyes. Since, as will be shown elsewhere, banded eyes were an essential feature of the original definition of *Macrocormus*, the present species would be thereby excluded. Nevertheless the name is useful to cover a fairly numerous group of similar appearing Neotropical species with narrow frons, slender antennae, prominent appendix on third vein, and abdomens with a middorsal row of more or less distinct pale triangles.

Tabanus lineola var. **plangens** Walker

1854, List. Dipt. Brit. Mus., 5: 199. — Fairchild, 1942, Ann. Ent. Soc. America, 35 (2): 174-175.

Eleven females, Rio Felício, 28 to 31-VII, 2 and 3-VIII-1959; 1 female, Anicoí, Rio Amapari, 25-VI-1959; 1 female, Serra do Navio, 28-IX-1957. Several specimens are unusually small.

Tabanus lineola var. **carneus** Bellardi

1859, Sagg. Ditt. Messicana, 1: 62. — Fairchild, 1942, Ann. Ent. Soc. America, 35 (2): 173-174, figs. 21-25.

A single female, Sant'Ana, 17-X-1957.

Tabanus callosus Macquart

1847, Dipt. Exot. Suppl. 3, p. 11.

Two females, Serra do Navio, 26 and 29-IX-1957; 1 ♀, Rio Felício, 29-VII-1959.

Tabanus importunus Wiedemann

1828, Auss. Zweifl. Insect., 1: 127.

Two females, Serra do Navio, Sept. 1959, R. Bicelli coll.

Tabanus nebulosus De Geer

1776, Mem. Hist. Insect., 6: 227, Pl. 30, fig. 2. — Philip, 1952, Ann. Ent. Soc. America, 45 (2): 312.
Tabanus ferrifer Walker 1850, Ins. Saund., 1: 30.

A single female, Sant'Ana, 17-X-1957.

Tabanus fortis, nom. nov.

Tabanus robustus Kroeber, 1929, Ann. Naturh. Mus. Wien, 43: 254, fig. 12 (*nec* Taylor, 1919, Proc. Linn. Soc. N. S. Wales, Australia).

Two females, Serra do Navio 25 and 27-IX-1957; 1 female, Anicoí, 29-VI-59; 1 female, Rio Felício, 31-VII-1959; 1 female, Serra do Navio, X-59, Bicelli coll.

Tabanus basivitta Walker

1850, Newman's Zool., 8, Appendix, p.68.

One male, six females, Serra do Navio, 24, 27 and 29-IX-1957; 11, 20 and 24-X-1957; 26 females, Rio Felício, 18 to 21-VII-1959; 2 and 3-VIII-1959; 1 ♂, Mazagão, Jari ao V. Nova, 1958, Damasceno coll. Additional specimens taken July and August 1959 indicate the species to be very abundant.

Tabanus discus Wiedemann

1828, Auss. Zweifl. Insect., 1: 123.

Two females, Rio Amapari, 9 and 10-VII-1959.

Tabanus olivaceiventris Macquart

1847, Dipt. Exot., Suppl. 2, p.18.

A single female, Sant'Ana, 18-X-1957.

Tabanus angustifrons Macquart

1845, Dipt. Exot. Suppl., 3, p.12.

Six females, Serra do Navio, 29-IX and 1, 7, 20 and 26-X-1957.

Tabanus guyanensis Macquart

1845, Dipt. Exot. Suppl. 1, p.169, Pl. 4, fig. 9. — Fairchild 1956, Smithsonian Misc. Coll., 131 (3): 18.
Tabanus flavibarbis Macquart, 1845, Dipt. Exot. Suppl. 1, p.169.

A single female, Mazagão, Jari ao V. Nova, 1958, Damasceno coll.

Summary

Forty-one species of Tabanidae are recorded from the Territory of Amapá. Of these, four are here described as new and one previously described species is made the type of a new subgenus. The remaining species have all been previously recorded from the Amazon basin or the neighboring Guianas.

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Mackerras, I. M., 1955, The classification and distribution of the Tabanidae. II History: Morphology: Classification: Subfamily Pangoniinae. Australian J. Zool., 3 (3): 439-511.

Philip, C. B., and G. B. Fairchild., 1956, American biting flies of the Genera *Chlorotabanus* Lutz and *Cryptotylus* Lutz. — Ann. Ent. Soc. America, 49 (4): 313-324. Fig. 1 and Plate 1.