

New Brazilian Mycetophilidae (Diptera, Nemocera).

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(With 14 figures)

Since Edwards published his papers on this family, very little work has been done on the Neotropical *Mycetophilidae*. That there are many species yet to be described, in this region, there is no doubt, and, until work of this kind is done, an accurate idea of this group, in the Neotropics, cannot be formed.

For several years, the author and his colleagues, have been gathering material, and this paper represents a small part of the species found in our collections. We have been able to collect specimens from a few of the states in middle Brasil and have, besides, two species from the Amazon Valley. With reference to middle Brasil we believe that an idea of the abundance and presence of genera and new species can be made.

We have, in this paper, adopted the classification proposed by Edwards in 1924.

Below we give the description of seventeen new species found in the genera which have been worked out. Redescription of some known species have been made and in a few cases allotypes have been designated.

Centrocnemis Philippi, 1865.

We have five species which belong to this genus, four of them are new and the fifth has been determined as *C. bisetosa* Edwards, 1940. All of our species have the following characters in common: — antenna quite flattened; eyes pilose; two long bristles on scutellum; basal section of *Rs.* bulging slightly into the end of the basal cell and the wing evenly and densely covered with macrotrichiae. It has been impossible for us to place *C. pedifera* Edwards, 1940. There is a possibility that it may be one of the species described below.

Centrocnemis bisetosa Edwards, 1940.

1940, *Centrocnemis bisetosa* Edwards, Rev. Ent., 11: 442.

There are two males which agree with Edward's description. We take the opportunity to describe and illustrate the male genitalia.

Genitalia (Fig. 1). Basistyle with the lobes fused and having

at the apex two long arms which are slender and end in a strongly sclerotized head which has blunt teeth on the inner margin, internally there are two additional sheath like appendages. Dististyle with a rounded and strongly setose portion and a strongly sclerotized tooth; this tooth has its upper portion notched and leaving an internal protuberance with another inner tooth. Mesosome pointed and as in the figure.

Locality of our specimens: — Brasil, State of S. Paulo, Campos do Jordão, XII.1945 (J. Lane col.).

Centrocnemis guyanasi, n. sp.

Male: — Head. Palpi brownish, the distal portion of the first and second segments blackish, the third blackish; mouth parts reduced; antenna about one and a half times the length of the mesonotum, the scape, torus and first seven flagellar segments reddish, the distal three or four with some black intermixed, the remaining segments blackish; ocelli three, nearly in line, large, quite removed from the eye margin and surrounded by black integument; occiput brown, covered with short dark hairs.

Mesonotum brownish, with indefinite yellowish markings, covered with blackish hairs and lateral bristles, four long bristles on the prescutellar region; scutellum of the color of the mesonotum; pleurae yellowish-brown, posterior pronotum with two setae, anterior pronotum hairy, the rest nude.

Legs. Coxae yellowish with blackish hairs. Front trochanter with a dark internal spot. Femora yellowish-brown, densely covered with short, darker, hairs and a few setae. Tibiae and tarsi blackish-brown, the spurs black and very long, slightly longer than the length of the third tarsal segment. Front tibia with 1 dorsal, 2 ventral, 3 external and 0 internal setae besides 3 apical ones; hind tibia with 4 dorsal, 3 ventral, 6 external and 3-4 smaller internal setae besides the 2 apical ones.

Wing smoky. Halteres blackish, the base of the stem yellowish.

Abdomen with blackish tergites, second to fifth segments with narrow apical yellowish bands, covered with yellowish long hairs intermixed with denser blackish ones; sternites light brown basally and broadly yellowish distally.

Genitalia. (Fig. 2). Basistyle short, united and having at the apex two short external thick filaments which are capitate, the

head is strongly sclerotized and has short, rounded teeth on the inner margin; the internal appendages have an internal notch, are blunt, and end in two long setae. Dististyle large, longer than the basistyle, the setose portion elongate and broad, the tooth ending in a bifid point, the outermost one slender and longer, the inner one with sinuate margin and a baso internal tooth. Mesosome with blunt apex and two lateral appendages.

Female: — Unknown.

Types: — Holotype male; paratype a single male. Registered under numbers 6427 and 6428. (These and the following numbers are those of the entomological collections of the Faculdade de Higiene e Saúde Pública da Universidade de S. Paulo, Brasil.)

Type locality: — Brasil, State of S. Paulo, Campos do Jordão, XII.1945 (J. Lane col.).

Centrocnemis tupi, n. sp.

Male: — Differs from the above described species by the following characters: — antenna with the scape, torus and first eight segments brown, the others gradually becoming blackish; anterior tibia with 0 dorsal, 1 ventral, 3 external and 2 internal setae; posterior tibia with 4 dorsal, 4 ventral, 5 external and 3 internal bristles.

Genitalia (Fig. 3). Basistyles fused, the apex with the two external filaments very large and wholly sclerotized, the head elongate and ending in about five blunt teeth, the internal appendages having the form of a short, rounded lobe. Dististyle with the setose portion subtriangular, internally forming two teeth, the inner one finger shaped and slightly sclerotized at the apex, the outer one strongly sclerotized, curved behind the middle, and serrate in the inner margin. Mesosome blunt and strongly sclerotized in the middle.

Female: — Unknown.

Types: — Holotype male; paratype a single male. (ns. 6429 and 6430).

Type locality: — Brasil, State of Goiaz, Corumbá, XI.1945 (M. P. Barretto col.).

Centrocnemis guarani, n. sp.

Male: — Differs from the above described species by the following characters: — antenna with scape, torus and only the first three to five segments reddish; then gradually becoming

blackish; ocelli surrounded by black integument; mesonotum with three dark broad longitudinal brown marks separated in the middle by two narrow yellowish ones corresponding to the insertion of the dorsocentral setae; fore tibia with 0 dorsal, 1 ventral, 2 external and 2 internal setae; hind tibia with 4 dorsal, 2 ventral, 4 external and 2 internal setae; abdomen with the first tergite completely yellowish, the second broadly yellow at base and apex, the third to sixth with broad apical yellowish bands, the remainder blackish.

Genitalia (Fig. 4). Basistyles fused, longer than the dististyles, the external apical filaments elbowed, with the portion above the angle very strongly sclerotized, blackish, but leaving a median translucent region which shows a median series of blunt teeth; internal appendages short and broad. Dististyle with the setose portion rounded, the sclerotized tooth blunt at apex, with no teeth and having, in the middle a yellowish triangular area. Mesosome as in the figure.

Female: — We have two females from the same localities but do not feel like ascribing them to this species.

Types: — Holotype male; paratypes seven males. (ns. 6431 to 6438).

Type locality: — Holotype, Brasil, State of S. Paulo, Cantareira, X.1945 (J. Lane col.); paratypes from same localities except two from the State of Goiaz, Corumbá, XI.1945 (M. P. Barretto col.).

Centrocnemis bororo, n. sp.

Male: — Differs from the above described species by the following characters: — antenna brownish, intermixed with blackish on the basal seven or eight segments, the rest becoming gradually blackish; mesonotum similar to *C. guarani*; anterior tibia with 0 dorsal, 1-2 ventral, 2 external and 2 internal bristles; posterior tibia with 4 dorsal, 4 ventral, 5-6 external and 4 ventral bristles; abdomen black, with very narrow distal band on the first to fifth tergites, the second with a narrow basal and also.

Genitalia (Fig. 8). Basistyles fused, much longer than the dististyles, the external apical filaments elbowed, the portion above the angle very strongly sclerotized, blackish, enlarged towards the tip where there are numerous blunt teeth; internal appendages formed by a pointed filament which is weakly sclerotized. Dististyles with the setose portion broad, rounded, the sclerotized

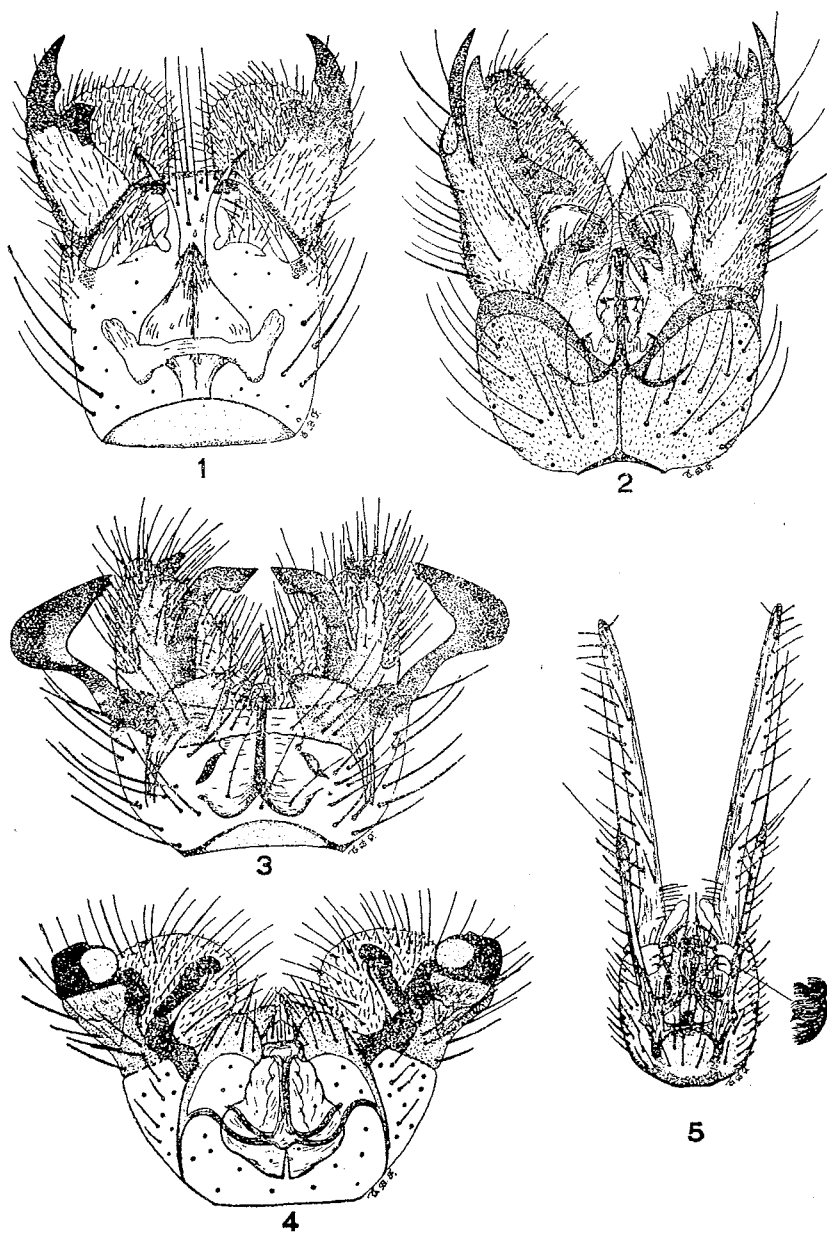


Fig. 1. *Centrocnemis bisetosa* Edwards, genitalia of male. — Fig. 2. *Centrocnemis guyanasi* n. sp., idem. — Fig. 3. *Centrocnemis tupi* n. sp., idem. — Fig. 4. *Centrocnemis guarani* n. sp., idem. — Fig. 5. *Exechia goianensis* n. sp., idem.

portion with two teeth, the internal one very slender, pointed and notched, having one or two long setae inserted on the sides. Mesosome as in the figure.

Female: — Basal segments with a reddish tint, posterior tibia with 5 instead of 4 bristles on the surfaces. Otherwise similar to the male. Genitalia small, the cerci rounded.

Types: — Holotype male; allotype female. (ns. 6439 and 6440).

Type locality: — Brasil, State of Rio de Janeiro, Itatiaia, IX.1946 (M. P. Barretto col.).

Macrocera shannoni, n. sp.

Male: — Head. Mouth parts small; palpus short, with four blackish segments, the second the broadest, oval, the fourth oval-elongate; ocelli three, inserted in a row, on top of small blackish protuberances, close together; occiput, front and vertex with yellow integument; antenna more than three times the total length of the body, scape and torus yellowish, flagellum blackish, densely pilose, the upper margin with irregular rows of setae on the segments, these about the same size.

Thorax yellowish. Mesonotum with lateral brownish marks; scutellum with a median longitudinal incision and two small setae; pleurae with the anepisternite brown, apparently nude.

Legs. Coxae yellowish, the rest brownish. Front tibia ending in an apical comb and single smooth spur. Spurs of mid tibia small, about as long as the width of the tibia at apex.

Wings with the veins and markings as in figure 11. Macrotrichiae present only at the extreme tip where there are five or six of them. Markings yellowish and brown. Haltere with yellow stem and dark brown knob.

Abdomen with the tergites dark brown in the middle, yellowish at the sides.

Genitalia. Basistyles united on the basal two thirds, antero internal angles with a few differentiated setae. Dististyles shorter than the basistyles, slightly enlarged at apex and with two very large internal teeth in the mesial portion; lobes of the tergites large, elongate, rounded at apex and with long setae.

Female: — Unknown.

Type: — Holotype a single male registered under number 6441.

Type locality: — Brasil, State of Mato Grosso, Maracaju, VI.1937 (R. C. Shannon col.).

Platyroptilon ramicornis Enderlein, 1911.

1911, *Platyroptilon ramicornis* Enderlein, Stet. Ent. Zeitg., 72: 145.
1934, Edwards, Rev. Ent., 4: 360.

We have eight specimens which agree, in general, with the specific diagnosis. There is, however, a certain variation in the colors of the mesonotum and the abdomen. The mesonotum can be quite dark in some of the specimens and with a broad anterior yellowish tinge in others. The abdomen varies as to the bandings and we have noticed that in some specimens the genitalia is whitish whilst in others it is blackish. Both these types of genitalia, when mounted, show no structural differences whatsoever.

Genitalia. Basistyles fused at base, then divided, elongate, at the middle with a projection the apex of which is in a plane on its upper surface (such plane is studded with short, strongly sclerotized blunt spines) the internal angle acute; above this structure another rounded lobe, strongly setose at apex. Dististyle short, nude and ending in a strong pointed claw. Lobes large, elongate, setose at apex. Accessory lobes large, long, also setose at apex. Mesosome hyaline, rounded and with an apical rounded point. Tergites broad, the upper margin sinuate, with two lateral and small setose projections.

Locality of our specimens: — Brasil, State of Rio de Janeiro, Angra dos Reis, I.1945 (J. Lane col.); State of S. Paulo, S. Paulo, III.1942 (J. Lane col.), Jaraguá, VIII.1945 (J. Lane col.), Cantareira, X.1945 (M. P. Barretto col.), Juquiá, IX.1945 (J. Lane col.), Itanhaem, X.1945 (L. Travassos F.º col.).

Lygistorrhina Skuse, 1890.

1890, *Lygistorrhina* Skuse, Proc. Lin. Soc. N. S. Wales, 5: 598.
1896, *Probolaeus* Williston, Trans. Ent. Soc. London, 261.
1911, *Aphanizophleps* Enderlein, Stet. Ent. Zeitg., 72: 201.

So far, only four species belonging to this genus, have been described in the Neotropical region. We have male specimens of a species which shows characters of both *L. urichi* and *L. brasiliensis* but they will be the subject of a future note. Below we give our description of *L. coxata* and take this opportunity to describe two new species.

Lygistorrhina coxata (Enderlein, 1911)

1911, *Aphanizophleps* Enderlein, Stet. Ent. Zeitg., 72: 203.

Female: — Head. Proboscis slightly shorter than the length of the abdomen, dark brown, attenuated apically; clypeus pruinose, with blackish setae; eyes large, pilose, reniform, united

below, approximated above; antenna brown; occiput blackish brown, the ocelli removed from the eye margin, the middle one smaller.

Thorax. Mesonotum dark brown, covered with short pilosity and black setae which are longer over the root of wing and on the prescutellar region; scutellum brown, with about fourteen marginal setae; postnotum dark brown; pleurae with setae on the pronotum, propleura and on a row on the pleurotergite, the rest nude.

Wing evenly covered with macrotrichiae; squamula with a complete fringe; veins as in figure 14. Haltere light brown.

Legs. Coxae blackish brown, femora and tibiae brown but darker on the hind femur and the apex of hind tibia and all the tarsi.

Abdomen blackish. Tergites with the four or five basal segments slightly lighter at apex. Sternites with distinct apical bands on the first five segments. Cerci elongate, whitish.

Male: — Described by Enderlein.

Type: — We have selected as allotype of this species the specimen described above and which has been registered under number 6446.

Locality of our specimens: — Allotype from Brasil, State of S. Paulo, Jaraguá, VIII.1945 (J. Lane col.). Another female from S. Paulo, Cantareira, VIII.1945 (J. Lane col.).

Lygistorrhina barrettoi, n. sp.

Female: — Head. Proboscis longer than the abdomen, dark brown, attenuated distally; clypeus brown; eyes as in *L. coxata*; antenna with blackish scape and torus, the flagellum dark brown; occiput blackish; ocelli large, quite removed from the eye margin, the median one smaller.

Thorax. Mesonotum brown but with lighter markings, covered with short pilosity and small black setae which are longer over the roots of wings and on the prescutellar region; scutellum brown with eight marginal setae; postnotum yellowish brown; pleurae brown, the pleurotergite with a row of about ten setae on the posterior margin.

Wing with the characters of *L. coxata*. Haltere yellowish.

Legs. Anterior coxa yellowish and with antero inferior setae; middle and hind coxae light brown but slightly darker towards apex. Anterior and mid femora yellowish but gradually darker

towards apex, the hind one yellowish but blackish beyond the middle. Fore tibia yellowish, middle one brown, the hind one also brown except the apical fourth which is blackish. Tarsi dark brown.

Abdomen. First tergite mostly brown, second to fifth blackish, with narrow apical whitish bands, the others blackish; cerci elongate, reddish white.

Male: — Unknown.

Types: — Holotype female; paratype a single female. (Ns. 6450 and 6451).

Type locality: — Brasil, State of Goiaz, Corumbá, XI.1945 (M. P. Barretto col.).

Lygistorrhina edwardsi, n. sp.

Female: — Head. Proboscis slightly shorter than the length of the abdomen, dark brown, attenuated distally; clypeus pruinose, with short setae; eyes like in *L. coxata*; antenna with the scape and torus light brown, flagellum with the first five segments reddish brown, the remaining ones blackish, all segments with short setae; occiput blackish brown; the ocelli quite removed from the eye margin.

Thorax. Mesonotum brown but of a lighter color on the sides, covered with short pilosity and small black setae which are longer over the root of wings and in the prescutellar region; scutellum dark brown and with about six setae on the hind margin besides some smaller ones; postnotum blackish; pleurae brown and darker than the mesonotum, pronotum, propleura and pleurotergite with setae, the pleurotergite bulges and has the setae on a posterior row.

Wing with the characters of *L. coxata*. Haltere yellowish.

Abdomen blackish, the first five tergites with broad apical yellow bands; cerci elongate and whitish.

Male: — Unknown.

Types: — Holotype female; paratype a single male. (Ns. 6448 and 6449).

Type locality: — Brasil, State of S. Paulo, Ferraz de Vasconcelos, VIII.1946 (J. Lane col.) and Campos do Jordão, XII.1945 (J. Lane col.).

Zygoneura maculipennis, n. sp.

Female: — Head shining black; mouth parts small; palpus blackish, opaque and apparently with three segments; eyes white pilose; ocelli three, placed on a calosity at the upper portion of the head, the lateral ones larger, all quite removed from the eye margins; antenna with the segments thick, densely covered with short pilosity, the fourth segment slightly longer than broad, the others also slightly longer than broad except the third segment which is one and a half times as long as wide, the antenna is blackish except the last four segments which are white and covered with white pilosity also.

Thorax brilliant black. Disk of mesonotum with the dorso-central setae very small, slender and barely visible; scutellum with a pair of larger setae on the middle and with three very small ones on the sides; pleurae apparently nude.

Legs. Front leg with coxa light yellow except at base; femur yellowish white basally, darker distally; tibia light brown and with a whitish terminal spur; tarsi darker and longer than the length of tibia. Mid leg with coxa dark brown except internally and apically where it is yellowish; femur yellowish in less than the basal half, the rest light brown; tibia light brown and ending in two white spurs as long as the tibial diameter; tarsi gradually darker, their total length smaller than the length of tibia. Hind leg with blackish coxa; femur and tibia like the mid leg but longer and thicker; tarsi like in the mid leg but still shorter than the length of tibia; hind tibia with a row of short close setae on the postero dorsal two thirds; the spurs as in mid leg.

Wing with two dark bands, one at apex and the other before the middle and forming a pretty pattern for the clear bands alternate with the dark ones. Densely covered with microtrichiae over the whole surface, the veins setose except the stem of the median one; squamula nude; haltere with yellowish stem and large blackish knob.

Abdomen long, about two and a half times the length of the thorax. Tergites marked as follows: — the first and second blackish only at apex, the rest yellowish, the third and fourth yellowish only at base, the rest black, the fifth to seventh with the same markings as in the second and third but they are more extensive; cerci oval and blackish.

Male: — Unknown.

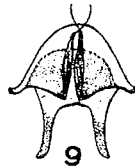
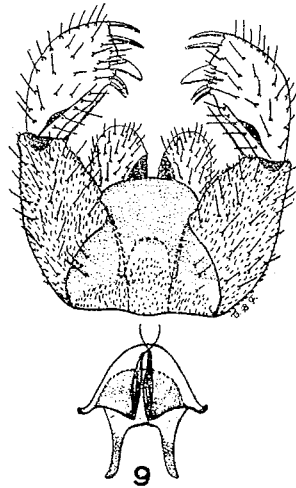
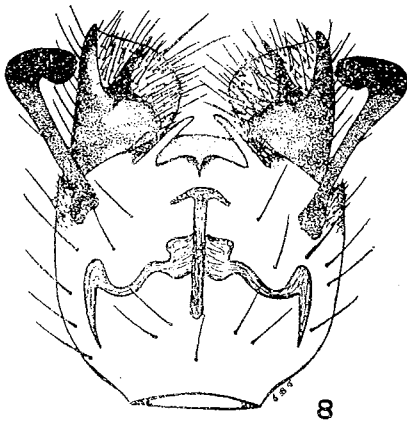
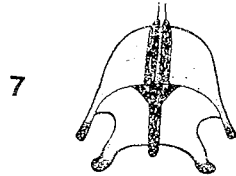
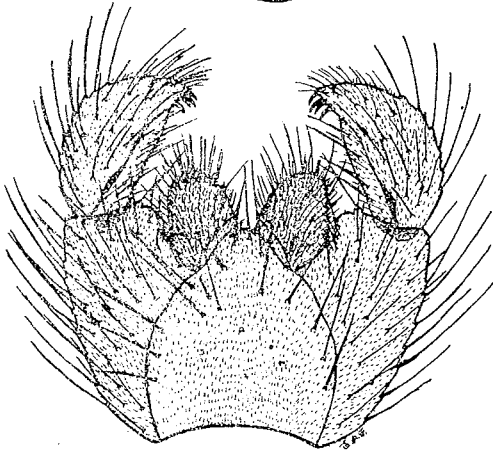
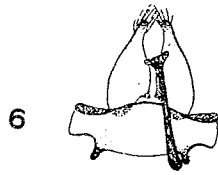
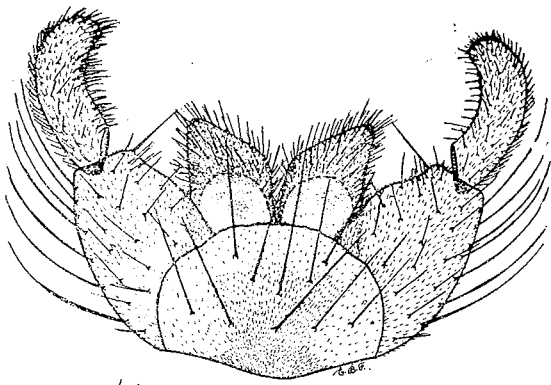


Fig. 6. *Metangela calliptera* Rübs., genitalia of male. — Fig. 7. *Metangela rübsaamni* n. sp., idem. — Fig. 8. *Centrocnemis bororo* n. sp., idem. — Fig. 9. *Zygoneura alboantennata* n. sp., idem.

Types: — Holotype female; paratypes two females. (ns. 6452 to 6454).

Type locality: — Brasil, State of S. Paulo, Jaraguá, VIII.1945 (J. Lane col.), paratypes S. Paulo, Ferraz de Vasconcelos, VIII.1946 (J. Lane col.) and State of Rio de Janeiro, Itatiaia (Maromba, 1100 meters altitude), VIII.1946 (M. P. Barretto col.).

Zygoneura alboantennata, n. sp.

Female: — Head brilliant black; palpus light brown, the last segment of a still lighter tinge; clypeus small, blackish, sparsely pilose; eyes pilose; ocelli three, placed on a callosity, the lateral ones larger, all quite removed from the eye margin; occiput shining black; antenna with the scape and torus brownish, also the base of the first flagellar segment, first segment more than twice the basal width, the others slightly longer than wide, flagellum with the apex of the first until the tenth segments blackish and covered with dense pilosity of this color; the eleventh segment to the fourteenth white and covered with white pilosity.

Thorax similar to *Z. maculipennis*.

Legs. Coxae light yellow except at base where they are slightly darker; femora with a dark spot at the junction with the trochanters, the base yellowish, the apex brown, more so on hind one; tibiae light brown, the fore and mid ones shorter whilst the hind one is slightly longer than the length of their respective tibiae; spurs whitish, single and smaller on fore and double on mid and hind pairs, their lengths a little longer than the diameter of the femur; tarsi lighter at base but gradually darker towards the apex.

Wings cloudy, the cloudiness slightly darker in the middle; macrotrichiae densely covering the whole surface of the wing; veins as in figure 12, setose except the stem of the median one; haltere with whitish stem and dark knob.

Abdomen with brown tergites, the lateral margins and genitalia blackish; sternites brown; cerci small, rounded and blackish.

Male: — Antenna longer than the length of the body, scape larger than torus, both very sparsely pilose and dark brown; flagellum with the last two segments completely white, the others blackish, all subequal except the second segment which is smaller and the apical ones which are slightly longer; all segments are cylindrical and strongly pilose having short whitish pedicels, the apical one is acuminate at apex.

Genitalia. (Fig. 9). Basistyle oval, sparsely setose, with a differentiated spine on the upper internal margin. Dististyle also oval, widened towards apex where there is a protuberance in the form of a strong tooth and below this structure two curved setae and also two longer ones above it; tergite spiculate, sparsely setose and with a baso internal spicule. Mesosome slender, long, sclerotized laterally and with two crossed long setae at apex.

Types: — Holotype male; allotype female. (ns. 6456 and 6457).

Type locality: — Brasil, State of Rio de Janeiro, Itatiaia (Maromba, 1100 meters), VIII.1946 (M. P. Barretto col.); State of S. Paulo, Jaraguá, VIII.1945 (M. P. Barretto col.).

The white apical segments on the antenna, black halteres and abdomen, and the hyaline wings, separate *Z. boliviana* Edwards from the above described species. The banded wing separates *Z. maculipennis* from the rest while the white apical segments on antenna and cloudy wings separate *Z. alboantennata*. Below we give a key for the species occurring in South America.

Key for South American *Zygoneura*.

1. Wing unicolorous 2.
- Wing with two dark transversal bands. *maculipennis*
2. Haltere with yellowish stem and blackish knob. 3.
- Haltere blackish; abdomen blackish; wing hyaline. . *boliviana* Edwards
3. Antenna blackish; abdomen shining black. *glaberrima* Edwards
- Antenna with the last four segments white; abdomen brown, the postero lateral angles blackish; wing cloudy. *alboantennata*

Metangela calliptera Rübsaamen, 1894.

1894, *Metangela calliptera* Rübsaamen, Berl. Ent. Zeitschr., 39: 24.
1902, Kertész, Cat. Dipt., 1: 2.

We have males and females which agree with the excellent description and illustration given in the original diagnosis. We take this opportunity to describe the male and select it as the allotype of this species.

Male: — Similar to the female. Genitalia (Fig. 6). Basistyle longer than wide, a modified supero internal spine present. Dististyle shorter than the basistyle, densely pilose at apex, curved and with an internal row of modified setae. Tergite semicircular, finely spinulose and with irregular rows of setae forming a pattern. Accessory lobes large, longer than broad, the sides more developed. Mesosome with two lateral lobes and strongly sclerotized in the middle.

Type: — Allotype male. (N. 6458).

Type locality: — Brasil, State of S. Paulo, Cantareira, X.1945 (M. P. Barretto col.).

Additional localities: — Besides a female captured with the male there is another male from the State of Rio de Janeiro, Tinguá, V.1940 (R. C. Shannon col.) and a female from Itatiaia (Maromba 1100 meters), VIII.1946 (M. P. Barretto col.).

Metangela rübsaameni, n. sp.

Male: — Head. Mouth parts small. Palpi light brown; clypeus blackish; eyes white pilose; antenna with scape and torus large, the scape blackish, the torus of a light brown color, flagellum nearly twice as long as the length of the mesonotum, blackish, the segments with very short pedicels their length about twice as long as wide; occiput blackish brown, the middle ocellus behind the insertion of antennae.

Thorax with blackish brown integument. Mesonotum brilliant and nude except for the row of short, brown, acrostichal and dorsocentral setae, these are removed and parallel to the marginal ones; prescutellar depression shallow; scutellum dull blackish, with ten slender marginal setae in two rows; pleurae blackish.

Legs. Coxae yellowish. Front coxa dark pilose anteriorly, mid and hind ones laterally. Femora yellowish in the front and middle pairs, darker on the hind one, all with a dark spot at base and internally, covered with dark pilosity, hind femur longer and thicker than the others. Tibiae and tarsi brownish, fore tibia with one, the others with two apical spurs, the spurs are slightly longer than the diameter of tibia and whitish.

Wing fuscous brown, the whole surface covered with both macro and microtrichiae. Veins setose except at base. Haltere with slender white stem and large, long, blackish knob.

Abdomen blackish brown, covered with long blackish hairs.

Genitalia (Fig. 7). Basistyles large, longer than broad, setose, a differentiated seta on supero internal angle. Dististyle shorter than the basistyle, thickened apically and with about four short differentiated setae at apex, internally; accessory lobes rounded and with modified setae on the upper margin. Tergite large, with long lateral setae besides a few middle ones. Mesosome somewhat as in the figure but difficult to see in all details.

Female: — Unknown.

Type: — Holotype male registered under number 6462.

Type locality: — Brasil, State of S. Paulo, Batêa, XI.1940 (J. Lane col.).

Trichosia melanocephala (Fabricius, 1805).

- 1805, *Sciara* Fabricius, Syst. Antl., 60: 16.
 1821, Wiedemann, Dipt. Exot., 1: 33; 1828, Wiedemann, Aus. Zweifl. Ins., 1: 69.
 1894, *Trichosia* Rübsaamen, Berl. Ent. Zeitschr., 39: 23.
 1902, Kertész., Cat. Dipt., 1: 2.

We have one male and six females from the State of Rio de Janeiro, Itatiaia (Maromba 1100 meters), VIII.1946 (M. P. Barretto col.). Our specimens agree in all characters with Rübsaamen's description and illustrations.

Trichosia antunesi, n. sp.

Female: — About the size and shape of the preceding species. Head. Mouth parts and palpus pellowish, covered with dark hairs; palpus three segmented, the first and second segments short, broad, the third about as long as the two basal ones, slender; clypeus yellowish, with short blackish hairs; antennae with the scape and torus yellowish, the flagellum blackish with short, dense whitish pile, the basal segments thicker but gradually becoming more slender until the apex, the last segment acuminate, the first segment is about twice as long as wide and the following segments gradually lengthen until the penultimate one which is nearly four times as long as wide; occiput yellowish with blackish hairs; ocelli inserted on a small protuberance which is blackish and removed from the eye margin, the median ocellus is smaller.

Thorax. Mesonotum yellowish on a transversal band in front, the rest shining blackish except for a longitudinal yellowish stripe between the dorsocentral setae and ending a little beyond the prescutellar region, there are also spots of this color on the latero posterior angles; acrostichal and dorsocentral setae short but distinct, the rest glabrous except for the marginal setae; scutellum large, subtriangular and with four long posterior setae; pleurae yellowish, pronotum hairy, the rest nude.

Wing with an apical transversal dark band occupying about a third of the wing surface, evenly covered over the whole surface with both macro and microtrichiae. The veins strong except for the stem and upper fork of media. All veins setose. Haltere with yellowish slender stem and elongate black knob.

Legs. Coxae light yellow. Trochanters with a dark blackish internal spot; femora yellowish; tibiae and tarsi blackish; claws simple.

Abdomen with the first tergite yellow, second to fourth with broad blackish marks, nearly united in the middle, fifth segment

yellowish basally, blackish apically; other segments very small and telescoped; cerci slender and elongate.

Male: — Unknown.

Types: — Holotype female; paratype, a single female. (ns. 6467 and 6468).

Type locality: — Holotype Brasil, State of S. Paulo, Cantareira, XI.1946 (M. P. Barretto col.); paratype State of Rio de Janeiro, Distrito Federal, IV.1938 (R. C. Shannon col.).

Delopsis johannseni, n. sp.

Male: — Head dull yellow brown, the pilosity golden; palpus with the first segment darker, the second the shortest and broadest, darker at apex, the third long and yellowish; antenna with scape, torus and first three flagellar segments yellowish, the others gradually become darker until the apex where they are blackish.

Thorax. Mesonotum dull yellow grayish, in the middle brownish and forming an indefinite pattern, covered with light pile and blackish setae, the posterior margin with two blackish spots which are contiguous to the scutellum; scutellum the color of the mesonotum except for an U-shaped blackish mark, the arms of which connect with the mesonotal spots, the margin with four long setae; postnotum darker in the middle; pleurae brown, lighter near the coxae, pleurotergite darker on the posterior margin and in the underside.

Wing with a yellowish tint with a large brown spot from R and over the fork of media. Costa ending at R; Cu fork slightly more basal than that of M. Haltere yellowish.

Legs. Coxae whitish, the extreme apex brown; femora light yellowish, tibiae and tarsi gradually darker. Mid tibiae with 3 dorsal, 5 ventral, 4 external and 3 distal internal setae. Hind tibiae with 5 dorsal, 0 ventral, 7 external and 0 internal setae.

Abdomen with the tergites dorsally blackish except for yellowish baso-lateral small bands on the fifth and a broad band on the sixth, the rest yellowish; venter yellowish.

Genitalia. Basistyles elongate, covered with long setae. Dististyle very short, slender, setose. Mesosome a large rounded hyaline structure posteriorly and another short basal one with an apical tooth.

Female: — Unknown.

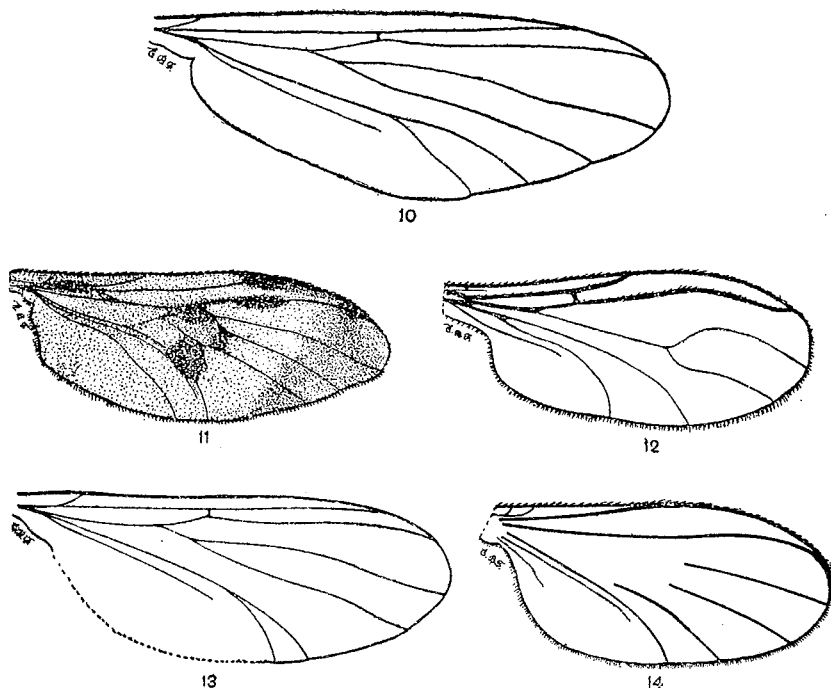


Fig. 10. *Exechia paulistensis* n. sp., venation of wing. — Fig. 11. *Macrocera shannoni* n. sp., idem. — Fig. 12. *Zygoneura alboantennata* n. sp., idem. — Fig. 13. *Exechia goianensis* n. sp., idem. — Fig. 14. *Lygistorrhina coxata* Enderlein, idem.

Types: — Holotype male; paratype a single male (damaged). (ns. 6469 and 6470).

Type locality: — Brasil, State of S. Paulo, Campos do Jordão, XII.1945. (J. Lane col.).

Delopsis punctulatus, n. sp.

Female: — Head yellowish, covered with golden hairs; palpus yellowish, second segment slightly broader and the shortest, the third the longest; antenna with scape and torus yellowish, flagellum blackish, the basal segments of a lighter color.

Thorax. Mesonotum yellowish except for a large dark brown spot on the posterior margin and invading the scutellum, densely covered with dark hairs; scutellum yellowish except the basal and posterior margins which are dark brown, the margin with four setae; postnotum yellowish; pleurae yellowish.

Wing with yellowish tint, unspotted. Costa slightly produced;

cubital fork before that of M by nearly the length of the stem of M. Haltere with yellowish stem and light brown knob.

Legs with the coxae and femora light yellow, tibiae and tarsi darker. Mid tibia with 2 dorsal, 5 ventral, 3 external and 1 internal setae. Hind tibiae with 6 dorsal, 0 ventral, 6 external and 3 very small internal setae at apex.

Abdomen with the tergites dorsally light brown, the first tergite with an apical dark-brown band, sternites also light brown.

Male: — Unknown.

Type: — Holotype a single female registered under number 6471.

Type locality: — Brasil, State of Mato Grosso, Maracaju, VI.1937 (R. C. Shannon and J. Lane col.).

Exechia goianensis, n. sp.

Male: — Head. Mouth parts small; palpi short, yellowish; antenna with yellowish scape and torus, covered with thick dark brown setae, flagellum with the first segment basally yellowish, caliciform, dark at apex, the others nearly as broad as long, the flagellum slightly longer than the length of the thorax; occiput blackish, pruinose, covered with yellowish pilosity, the median one distinct and developed.

Thorax brown. Mesonotum with the integument brown in the center and whitish laterally; covered with fine golden pilosity, anterior margin with long setae, acrostichals diminute, dorso-centrals three or four, margins of mesonotum with long setae on humeral angle and in front of wing-roots also in the prescutellar region; scutellum dark brown except on the margins where it is whitish, posterior border with two long marginal setae which are very long besides smaller ones, the covering as in the mesonotum; postnotum brown black with a median yellowish longitudinal stripe; pleurae with yellowish integument except the anepisternite and the posterior margin of the pleurotergite which are brown black.

Legs. Coxae yellowish. Anterior coxae with an antero lateral row of about five setae, the median ones with apical setae, the posterior ones with a large, basal seta and another smaller one below, also two or three on apex. Anterior femur yellowish, infuscated at apex and with an internal row of setae. Median femur with the same color as the anterior one but without setae, the hind one yellowish with a more basal darker spot and the

apex of tibia darker. Tibiae brown, the fore one with one, the middle and hind ones ending in two strong and very long spurs; hind tibia with about 10 dorsal, 0 ventral, an apical row of about 8 small internal, and 5 external setae; tarsi dark.

Wing unspotted; the venation as in figure 13.

Abdomen with blackish tergites, lighter at the articulations and covered with long, blackish pilosity; sternites yellowish.

Genitalia (Fig. 5). Basistyle short, fused, rounded; having three sclerotized mamillated protuberances ending by a seta and covered with a filamentous membrane at apex, behind the protuberance, a club shaped filament connected to a slender rod. Dististyle more than twice the length of the basistyle, slender, attenuated towards the apex, setose and bluntly pointed. Tergite about one and a half times as long as the basistyle, slender, rod shaped and ending in a very long seta which is nearly as long as this structure. Mesosome sclerotized, the point recurved and having, laterally two long filaments ending in a long seta.

Female: — Unknown.

Type: — Holotype a single male registered under number 6472.

Type locality: — Brasil, State of Goiaz, Corumbá, XI.1945 (M. P. Barretto col.).

Exechia paulistensis, n. sp.

Female: — Head. Mouth parts small, yellowish; palpus yellowish, the segments elongate; clypeus yellowish and covered with brown pilosity; antenna with scape and torus yellowish, large and with strong and long blackish setae; first flagellar segment attenuated basally, broader at apex, slightly longer than wide and of a lighter color, other segments yellowish and gradually becoming grayish and subequal, the last segment pointed; front yellowish in front of antennae and at the ocular margins, the rest light brown and finely covered with yellowish setae, there are setae also on the sides of the median ocellus and parallel to the ocular margin.

Thorax. Mesonotum brown with dark brown markings forming a faded pattern, the lateral margins whitish; covered with blackish pilosity, acrostichal and dorsocentral setae distinct, also the setae on the anterior margin and a stronger and longer pair of setae on front of the scutellum; scutellum yellowish with two darker longitudinal stripes and the same covering as the

mesonotum having two marginal setae; pleurae brown black, the pronotum with very long setae.

Legs. Coxae yellowish, the fore one covered with small blackish setae and having the lateral, under margin, with about five long setae; middle coxa with long setae at apex; hind coxa with a basal seta and an apical one, between these, there is short and fine pilosity; trochanters yellowish with dark internal spots; femora yellow gray, covered with dark pilosity, the fore and middle ones with long setae in an internal row; tibia of the same color as the femora, the fore one with a single, the others with two long spurs; hind tibia with 5 dorsal, 0 ventral, about 12 external and 6 apical setae.

Wings unmarked, the veins as in figure 10. Haltere with whitish stem and sparsely covered with blackish setae, the knob dark brown.

Abdomen with brown tergites, except for large lateral margins which nearly form bands, covered with dark pilosity having yellowish reflexes.

Male: — Unknown.

Type: — A single female registered under number 6473.

Type locality: — Brasil, State of S. Paulo, Cantareira, VIII.1946 (M. P. Barretto col.).

Rhymosia airosai, n. sp.

Male: — Head as broad as the mesonotum; mouth parts small; palpus with the first segment shorter than the second, both covered with dark brown hairs, denser apically, third segment as long as both the basal ones, slenderer and yellowish; clypeus broader than long and with dense darker hairs; front brown, vertex dark brown; ocelli three, the lateral ones contiguous to the eyes, the middle one small and behind insertion of antennae; antennae with scape and torus reddish, the flagellum brown at base and gradually becoming darker towards apex which is blackish; occiput light brown and covered, as well as frons and vertex, with dense, brown hairs.

Thorax brown, densely covered with fine and short dark brown hairs. Mesonotum with setae on the anterior margin, lateral border, posterior margin and also with some setae on the prescutellar area; prescutellar region darker and with a pair of long setae; scutellum slightly darker than the mesonotum with two thick and long setae and, above them, another pair of smaller

ones; postnotum dark brown in the middle, yellowish at the sides; propleura densely covered with slender pilosity; pleurotergite with four larger and one or two smaller setae, besides about twenty still smaller ones over the surface; the rest nude.

Legs. Coxae long, yellowish; fore pair covered with short pilosity and on the dorso external angle, with a row of larger setae in the inferior portion; mid coxae with setae only on the anterior and posterior extremities; hind coxae with the same setae as the mid one and also two or three larger ones on the basal portion and others on the external margin. Femora darker than coxae and densely hairy, the hind ones longer than the others. Tibiae with a long spur on the anterior one, this spur is shorter than the basitarsus; mid tibia ends in two spurs and has 6 dorsal, 12 larger and 5 or 6 smaller ventral and 7 internal setae. Hind tibia longer than the corresponding basitarsus, with 6 dorsal, 7 larger and 2 smaller external, 3 internal and 11 ventral setae.

Wing with rows of microtrichiae, the venation normal. Halteres with dark stem and yellowish knob.

Abdomen blackish on top, the inferior margins of the tergites slightly lighter in color.

Genitalia. Basistyles elongate, fused at base. Dististyles divided into three arms, one elongate and ending in six strongly sclerotized long setae, the second short and notched at apex, the third caliciform. Accessory lobes long, slender and ending in a long, strong seta. Mesosome pointed.

Female: — Similar to the male.

Types: — Holotype male; allotype female; paratypes five males and three females (two of them mounted on a slide). (ns. 6372 to 6379).

Type locality: — Brasil, State of Amazonas, Maués, III. 1936 (C. Worontzow col.).

Rhymosia worontzowi, n. sp.

Female: — Head brown; palpus brown, first and second segments short, the first thicker, the third longer than the basal two, more slender, and yellowish; mouth parts reduced; ocelli two, inserted on the sides of the eyes and surrounded by darker integument; head covered with short setae which are slightly darker than the integument; antennae with the segments very close together and smaller apically.

Thorax brown. Mesonotum covered with rows of very short

hairs, the integument formed by a lighter subtriangular patch which reaches the prescutellar area and is medially divided by a narrow darker stripe, laterally there are lighter patches, setae are found only on anterior and lateral margins and over the roots of the wings; scutellum with fine pilosity and two long setae; pleurae with three long pronotal setae besides shorter ones and a tuft of about twenty short setae and two large long ones on the pleurotergites, the rest nude.

Legs. Coxae long, yellowish; femora slightly darker; fore tibia with the spur more than a third longer than the length of basitarsus, two external setae near base, 4 ventral ones, smaller and before the middle, length of tibia shorter than that of basitarsus. Mid tibia with 6 dorsal, a row of 12 external, 7 internal and 1 ventral setae; the internal spur longer than the external, the length of tibia slightly smaller than that of the corresponding basitarsus. Hind tibia with 7 dorsal, 14 ventral, 12 external and 3 apical internal setae; spurs as in mid tibia, the length of tibia quite longer than that of the corresponding basitarsus.

Wings unmarked. The veins normal. The fork of the cubital vein is before the stem of the median one. Halteres completely yellow.

Abdomen dark brown, the apex of the segments of a lighter color.

Male: — Unknown.

Types: — Holotype a female; paratype a female. (ns. 6382 and 6383).

Type locality: — Brasil, State of Amazonas, Maués, II. 1937 (C. Worontzow col.).

Acknowledgements.

The above material has been collected and given by Drs. M. P. Barretto, and A. L. Ayrosa Galvão of the Faculdade de Medicina da Universidade de S. Paulo. For their efforts in the field and permission to retain material in the Faculdade de Higiene, the author extends his thanks.

The drawings in this paper were made by Mr. E. B. Ferraz.

REVISTA DE ENTOMOLOGIA

VOL. 17

DEZEMBRO DE 1946

FASC. 3

Redator e Editor: Thomaz Borgmeier, O. F. M.

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Rio de Janeiro, Brasil .