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**Mycetophilidae (Diptera) collected by the expedition to Matto Grosso of
the Brazilian Zoological Club, in July 1939**

by F. W. Edwards (†), British Museum (Natural History)
(With 1 plate)

Through the kindness of Dr. Clemente Pereira, Director of the Club, and of Dr. John Lane, collector of the material, I have had the privilege of studying the Mycetophilidae collected during the Expedition of the Clube Zoologico Brasileiro to Salobra, Matto Grosso, in July 1939. The collection included 60 specimens belonging to 22 species, of which 11 are described as new in this report; the high proportion of new species is only what might have been expected in view of the present rudimentary state of our knowledge of the Mycetophilid fauna of South America, and of Matto Grosso in particular. Three species of the sub-family Sciarinae, represented in the collection by single specimens of doubtful identity, are not reported upon. It seems

worthy of note that not more than half a dozen of the species in this collection are also present in the large collection (300 or more species) made by Mr. F. Plaumann in Santa Catharina.

The types of the new species are preserved in the British Museum through the generosity of Drs. Clemente Pereira and Lane.

Ceroplastinae

Ceroplastus Bosc.

Neoceroplastus nov. subg.

Differs from other subgenera of *Ceroplastus* in the form of the palpi, which though rigid and composed of only one distinct segment as usual are rather long and slender. Venation also peculiar in that the base of R_s is almost transverse, and veins M_2 , Cu_1 and An are all markedly abbreviated. A further small peculiarity (in the specimens available for study) is that the last (16th) antennal segment has a slender, white, terminal projection which is protected above and below by a short black seta. Three ocelli; pleurotergites hairy; tibial setae in regular rows throughout; vein R_1 ending in R_1 : all as in *Ceroplastus* s. str.

Subgenotype: *Ceroplastus minimax* Edw. (Costa Rica).

Ceroplastus (*Neoceroplastus*) *minimax* Edw., var.?

1 ♂, no. 1.202.

This specimen differs from the type male from Costa Rica (which is no longer before me for exact comparison) in having the dark ring on the hind femur very narrow and close to base; wings with a larger dark spot over base of R_s , but spot surrounding R_1 quite separate from the dark area at tip. A female from Nova Teutonia, Santa Catharina (Plaumann coll.) is much more like the Costa Rican type, having similar wing-markings and nearly the middle half of hind femur dark. Whether these Brazilian specimens represent distinct species or mere variations of *C. minimax* can only be judged when more material is available.

Platyura Mg.

Platyura, nov. subg.

Wings with branches of media and cubitus bare. Costa very little produced; radio-medial fusion very long, several

times as long as stem of median fork; M_2 complete; A_n long but not reaching margin. Mesonotum uniformly setulose. Pleurotergites, postnotum and anepisternites bare. No spiracular hairs. Tibial setulae in numerous regular rows throughout. Spurs 1, 2, 2, outer spur of posterior tibiae not very short, both spurs normal and pointed, not enlarged at tip as in *Lapyruta*. Hypopygium of simple type, with two teeth at the tip of the long flattened style.

Subgenotype, *Platyura macilenta* F. Lynch Arr. Additional species are *P. (Lyprauta) burmeisteri* Edw., *P. (Lapyruta) batesi* Edw. and the new species described below.

Plautyura is well distinguished from most or all other subgenera of *Platyura* by the great length of the *rm* fusion. By hypopygial structure and in general appearance it would seem to be allied to *Isoneuromyia*, from which it differs in its bare veins.

Platyura (Plautyura) salobrensis, sp. n.

♂. — Head orange-yellow, with a black ocellar spot, face, palpi and first four or five antennal segments yellow, rest of antennae black. Eyes with the lower facets enlarged (an unusual feature which is also found in *P. macilenta* and may prove common to the species of this subgenus). Thorax orange yellow with an oval black spot above each wing-root and faint indications of two narrow convergent dark stripes in front of scutellum, but no trace of median dark stripe; scutellum and postnotum darkened in middle, but pleurae entirely yellow. Abdomen with segments 1-5 yellow, 5 entirely so but tergites 1-3 black basally and tergite 4 black except on its posterior margin; segments 6-8 and hypopygium entirely black. Legs yellow except for the darkened tarsi and black spurs. First front tarsal segment about 1/4 longer than tibia. Wings clear, no trace of darkening at tip. Halteres with dark knob.

Wing-length 4.5 mm.

1 ♂, no. 1.191.

P. salobrensis is closely related to *P. macilenta* F. Lynch A., but the latter (as represented by a male in the British Museum taken by Mr. J. Lane at São Paulo, 6.IV.39) is larger, with a broad median black stripe on front of mesonotum, hind femur dark at base, and wing-tip distinctly darkened.

Apyrtula, nov. subg.

Wings with branches of *media* and *cubitus* bare. *Sc* reduced to a short stump, beyond which it is only faintly taceable as a furrow. *Costa* unusually long, reaching nearly or quite two-thirds of the distance from R_5 to M_1 . R_4 very short, situated at or beyond midway between tips of R_1 and R_5 . Radio-median fusion short, much shorter than stem of fork. M_2 narrowly interrupted at the base (in the two known species). *An* short and indistinct. Three ocelli. Mesonotum uniformly setulose. No spiracular, anepisternal, pleurotergal or mediotergal hairs. Tibial setulae in regular rows throughout, some rows rather stronger than others but not conspicuously so as in *Platyura* s. str. Front tibial spur short; outer spur of middle tibia rudimentary, of hind tibia less than half as long as inner spur. Hypopygium: Tergite rather short and truncate, not covering anal segment which is terminal in position. Coxites much longer than tergite, separated practically to the base. Styles simple, ending in a single tooth-like process.

Subgenotype, the new species described below; a second species is also before me in the Plaumann collection.

Apyrtula differs from most if not all other subgenera of *Platyura* in the abbreviated subcosta. Apart from this the characters as described above seem to indicate affinities with the subgenera *Pyratula*, *Lyprauta* and especially *Platyura* s.str.

Platyura (Apyrtula) abbrevinervis, sp. n.

♂. — Head black, face yellow. Palpi and base of antennae brownish, most of flagellum black, segments short, mostly much deeper than long, with short pubescence. Thorax black, scarcely shining, with the pronotum clear yellow and margin of scutellum yellowish, otherwise unmarked. Abdomen blackish, with posterior margins of tergites 2-5 broadly yellowish. Legs yellow, including all coxae, but middle and hind femora dark at base beneath. Wings nearly clear, with a slight dark shade at tip on costal half, not extending below M_1 . *An* scarcely reaching level of *mcu*. Halteres clear yellow. Hypopygium: style of moderate length, but markedly shorter than coxite, with conspicuous tufts of hairs on both outer and inner margins before middle and ending in a slender, sharp, black-

ened point; tegminal plate large and broad, reaching to end of coxites.

Wing-length about 3 mm.

1 ♂, no. 1.207.

Sciophilinae

Mycomya clavata F. Lynch A. (?)

27 ♀, nos. 1.206, 207, 210, 213, 214.

This species is evidently nearly allied to *M. dorsimacula* End. of Santa Catharina, and may perhaps be a form of it. Whether either Enderlein's species or the Salobra form is the same as Lynch's from Buenos Aires cannot at present be decided. It is curious and unfortunate that most specimens of this group received at the British Museum are females, which cannot be positively determined. The main characters of the group to which these species belong are as follows:

Branches of *M* and *Cu* all setose. Sc_2 ending about opposite R_4 ; Sc_1 present. fCu below or scarcely before base of R_s . Scutellum with four bristles. Abdominal tergites yellow basally at sides, their posterior margins dark. Middle coxa of male with short spur (about half length of coxa) projecting forwards.

Neoempheria pereirai, sp. n.¹

♀. — Head mainly dark brownish; scape brown, flagellum and palpi black. Ocellar bristles short. Thorax uniformly dark brown above and somewhat shining; bristles scantier than usual, dorso-centrals irregularly uniserial, acrostichals few; scutellum with two strong bristles as in all other known neotropical species. Pleurae mainly blackish-brown, but lower part of pleurotergite and whole of sternopleura whitish-yellow, the two colours abruptly separated. All coxae whitish yellow with the tips pale brownish yellow; femora and tibiae slightly darker than coxae, tarsi dark. Abdomen mainly blackish; tergite 2 with a rather narrow yellow transverse band beyond the middle but with whole of posterior margin dark; tergite 4 with a yellow spot on each side at about the middle; 7

1) This species is also described in a revision of the Neotropical species of *Neoempheria* written in December 1939 for publication in "Notitates Zoologicae".

mainly yellowish. Wings with very distinctive markings: distal third wholly dark, the dark area broadly connected on hind margin with a dark median band; basal third wholly clear. Sc reaching only a short distance beyond base of Rs , Sc_2 transverse and near its tip; small cell much shorter than stem of median fork, which is rather long; costa distinctly produced; fCu well before base of Rs . Sc , M_2 , Cu_1 , and stem of Cu completely bare, M_1 and Cu_2 setose. Halteres dark.

Wing-length 3 mm.

1 ♀. No. 1.210.

This species is very different from all others of the genus known to me from South America, in the colouring of thorax and abdomen and in the markings and trichiation of the wings.

Cluzobra lanei, sp. n.

♂. — Head mainly dark, but flagellar segments (except the last few) each with the distal two-thirds yellow; palpi black. Thorax with the usual narrow dark stripes convergent behind, but these less obvious than in some of the other species, the median stripe scarcely perceptible. Abdomen blackish. Coxae mainly dark, hind coxae pale at base. Hind femur yellow with a narrow dark ring at base. Spurs blackish as usual. Wing with the macrotrichia dense, covering much of basal cell as in *binocellaris*. A blackish mark begins on base of Rs and extends narrowly into base of median fork. A narrow dark grey band crosses wing beyond middle; on costal margin it touches but lies mostly beyond tip of Rs ; on posterior margin and also in cell R_5 it is connected with a light grey area which covers much of the tip of the wing. Halteres with dark knob as usual. Hypopygium: sternite with a pair of short pointed projections in middle; styles definitely articulated to sternite (unlike the other species), infolded and not visible in the dry specimen, entirely black, bare and pointed.

Wing-length 3.5 mm.

1 ♂. No. 1.210.

Dziedzickia cryptura, sp. n.

♂. — Head shining brownish, black on the ocellar area. Palpi of moderate length, light brownish. Antennae not very long or stout, first 6-7 segments orange, rest blackish. Ocelli

rather large, especially the laterals, which are nearly twice their diameter from the eyes. Thorax with scutum shining black; prothorax, scutellum, postnotum and whole of pleurae yellow. *dc* and *acr* biserial; scutellum with four long bristles; only two long pronotal and one propleural; pleurotergites bare. Abdomen with segment 1 yellow, tergites 2-5 black with their posterior margins broadly yellow; 6-8 black; sternites 1-6 yellow. Hypopygium very small and withdrawn (so much so that I at first took the specimen to be a ♀); structure simple, somewhat as in *Tetragoneura*; style simple, sinuous, pointed, black. Legs yellow, including spurs, only the tarsi dark; no secondary sexual features; tibial bristles fairly numerous but quite short. Wings slightly tinted; very short setae on all veins. Sc_2 placed a little beyond middle of basal cell, Sc_1 represented by a short stump, not reaching costa. *fCu* a little before base of *rm*. Halteres with knob darkened.

♀. — Resembles ♂ in colouring. Segments 3 and 4 of front tarsi very slightly thickened.

Wing-length about 2.5 mm.

1♂ (type), and 1♀, no. 1.197. A second ♀ (no. 1.213) has the scutellum black and probably represents another species.

This species resembles *D. nigra* Fisher of Costa Rica in its bare pleurotergites, differing in its yellow pleurae. It is only provisionally referred to *Dziedzickia*, pending a revision of the South American genera and species of this group.

Leia fuscicornis, sp. n.

♀. — Belongs to the *completa* group, agreeing with other species of this group in having four scutellar bristles, all veins reaching margin, yellow halteres, and wings with a pre-apical dark band and two other dark marks. Very similar to *L. completa* Kert., *diversicornis* Kert. and *interrupta* Kert., and agreeing with them in having three black marks on scutum posteriorly and pleurotergites clear yellow like the pleurae; differs from all three most obviously in the darker antennae, the flagellum being almost wholly blackish above and only its first two or three segments yellowish below. Black marks on scutum sharply defined, the supra-alar spots small, median spot longer, squared off in front and extending half-way across scutellum; no other marks on thorax. Abdomen with equally wide and complete black bands on each of

tergites 2, 3 and 4; 5 with a wider black band which almost reaches base in middle; 6 almost all black. Legs yellow, hind femur narrowly dark at base beneath as well as at tip. Wings with the pre-apical band broad, dark, and equally distinct from costa to hind margin.

2 ♀, nos. 1.214 (type) and 1.217.

Leia incompleta Edw. (?)

1 ♀, no. 1.213. Wing, plate 15, fig. 5.

Leia salobrensis, sp. n.

♀. — Belongs to the *truncatonervosa* group i. e. with only two strong scutellar bristles, a strong ventral bristle on front tibia, and unmarked wings with both M_2 and Cu_1 abbreviated, not reaching margin. Differs from all the species of this group hitherto described in its much darker colouring. Head yellowish, darker across front; antennae short, first four or five segments pale, rest dark. Thorax mainly blackish brown, only anterior third of scutum and the whole scutellum yellow. Abdomen blackish brown above, tergites 2-4 with small pale areas in middle at base, 5 with rather large basal lateral yellowish spots. Legs yellow, including all coxae; middle and hind femora very narrowly blackish at base beneath, hind femur narrowly black at tip. Bristles long and black; mid tibia with two ventral bristles. Spurs yellowish. Halteres yellow as in other species of this group.

1 ♀, no. 1.210.

Tetragoneura flavicauda, sp. n.

♂. — Head shining black; palpi clear yellow; antennae with first three segments yellowish, rest black. Ocelli in line, equidistant from one another and from eyes. Thorax entirely black, including pronotal lobes and hypopleura; mesonotum rather brightly shining, pleurotergites velvety black; bristles and hairs black. Mesonotum with well-marked bare stipes. Scutellum with two long bristles. Abdomen with segments 1-6 entirely black and rather shining, 7-8 and the small hypopygium pale yellow. Ninth tergite almost divided into two by a median constriction; style divided almost to base into two arms, the dorsal arm pointed and bare, the ventral arm more rounded at tip and with three strong bristly hairs which

project ventrally. Legs yellow, including all coxae, but hind femur with nearly the distal half black and spurs and tarsi darkened. Coxae and middle tibia simple, the latter with three dorsal and three external bristles. Wings slightly and evenly tinted; R_4 present, the small cell short. R_1 and stem of median fork both somewhat longer than rm . All veins setulose as usual. Halteres clear yellow.

♀. — Differs from ♂ in having abdominal segments 5 and 6 as well as ovipositor yellow; 4 with a broad yellow band at base, and even 3 with some yellow at base.

Wing-length about 2.2 mm.

1 ♂ (type), no. 1.218; 1 ♀, no. 1.214.

The yellow genitalia in both sexes, and the form of the male styles, will distinguish this species from the other known South American species of the genus with simple legs.

Mycetophilinae

Neallodia brevicornis (End.)

1 ♂, no. 1.206.

This species, described as an *Allodia*, must, I think, be referred to the genus *Neallodia*, in spite of some divergences from the genotype, *N. flavida* Edw. In *brevicornis* there are several fairly strong anepisternal bristles, and the costa is scarcely produced beyond tip of R_5 ; in *flavida* the anepisternite has more numerous hairs which are however all very short, and the costa is conspicuously produced. In most other respects however the two species are extremely similar; they are evidently not nearly related to *Allodia*, but are much more like *Cordyla*, from which genus they differ chiefly in that the second palpal segment is not at all swollen.

The Salobra specimen agrees well with males of *N. brevicornis* in the British Museum from Paraguay and São Paulo.

Delopsis planiventris (End.)

1 ♂, no. 1.206.

The genus *Delopsis* is extensively developed in Brazil, and to it belong most of the species described by Enderlein under *Mycetophila* or *Plastacephala*, as well as numerous undescribed species in the British Museum collection.

Sciarinae

Pseudosciara hirtella Schin. (?)

A male specimen (no. 1.207) agrees with Schiner's type male from Colombia in the following features: Thorax, abdomen, palpi and halteres black. Legs yellow, including all coxae. Wings clear, not at all darkened at tip; R_1 ends above fM ; costa reaches about half-way from R_5 to M_1 ; An absent.

Five females (nos. 1.207, 210 and 214) are probably conspecific with this male, but differ as follows: Coxae more or less darkened (though not black even in the darkest specimen); middle femur darkened, and hind femur blackish. Wings evenly tinted with brown over the whole surface, but not very dark.

Pseudosciara coxalba, sp. n.

♀. — Allied to *Ps. hirtella*, with which it agrees in its black colour and in venation as noted above, also in wing-length (4 mm.), differing as follows: Antenna with scape yellowish. First abdominal tergite pale yellow at sides. Coxae all whitish yellow, strongly contrasting with the blackish middle and hind femora. Wings largely clear in middle, but with the tip darkened as far back as base of median fork; much of axillary area also somewhat darkened. Halteres with the stem almost white, strongly contrasting with the black knob.

2 ♀, nos. 1.199 and 214.

Pseudosciara grisapex, sp. n.

♂. — Head, thorax and abdomen black, moderately shining. Palpi brownish. Thoracic hair and bristles black, the notopleural series moderately long and strong. Abdomen rather densely clothed with black hair. Legs yellow, including all coxae; even the hind femur is very little darkened. Wings mainly clear, but the tip greyish to nearly as far as base of median fork; costal cell and hind margins also greyish. R_1 ending above or just beyond level of fM ; costa reaching scarcely more than a third of the distance from R_5 to M_1 ; An represented by a long row of macrotrichia. Halteres with black knob and yellowish stem. Hypopygium of the structure usual in this genus.

♀. — Differs from ♂ in having all coxae blackish, grey-dusted; front femur dark except at tip; middle and hind femora blackish; wings with the grey area at tip less extensive, leaving almost the basal third of median fork clear. Lateral abdominal membrane yellow.

Wing-length about 4.5 mm.

1 ♂, (type), no. 1.217; 2 ♀, nos. 1.205 and 218.

This species must be very similar to several others which have been described, such as *striata* Rübs., *luteicoxa* End., *pedunculata* End., *paradoxa* Pettey and *lindneri* Ldf., but I do not find in the descriptions of these any mention of the darkened wing-tip, which appears to me to be of some diagnostic importance. *Ps. grisapex* appears to be widely distributed in the Neotropical region, as there are very similar specimens in the British Museum from British Guiana and Trinidad; these however exhibit some variations.

Pseudosciara thoracica Ldf.

1 ♀, no. 1.214.

In this specimen the wings are mainly light brownish, but with a clear area in the middle extending across the stem of the median fork and base of cubital fork. For the rest the specimen agrees with Lengersdorf's description of the type female from Costa Rica, having two black marks on the thorax, and abdomen with tergite 1 yellow, 4 brownish yellow, 2, 3 and 5 blackish; legs yellow; head black; palpi yellow; costa reaching $\frac{2}{3}$ of distance from R_5 to M_1 ; etc. Lengersdorf does not mention the wing-colour in his type.

Pseudosciara trifasciata Coq.

1 ♀, no. 1.197.

A small species very much resembling *Ps. thoracica*, from which it differs chiefly in the colour of the abdomen; tergites 2-5 are each blackish with a narrow yellow band at the base. Coquillett's type was from Nicaragua, and I know of no other record. In the present specimen the wings are only faintly tinted, and the clearer area in the middle is therefore only just discernible.

Eugnoriste pernitens, sp. n.

♀. — Head brightly shining black, bare. Antennae and palpi black, the three palpal segments subequal in length and thickness. Labrum and labium about as long as eye. Eye-

bridges 2 facets wide. Thorax brightly shining black, both above and on sides, almost completely bare, with only a very few minute dorso-central hairs. Abdomen with integument entirely dull, tergites not strongly chitinised; black above and on sides, with narrow yellowish bands between segments, venter yellow. Legs yellow, including all coxae; tarsi and hind femur and tibia darkened; spurs 1.2.2. as usual and quite short; no obvious tibial bristles. Wings hyaline, veins dark except for stem of media. R_1 less than half as long as R and ending far before fM ; costa reaching fully $3/4$ of distance from R_5 to M_1 ; rm unusually short. Halteres blackish.

Wing-length about 2 mm.

1 ♀, no. 1.214.

I refer this species to *Eugnoriste* on account of the elongation of the labrum and labium, but these parts are not so long as in the North American species of the genus.

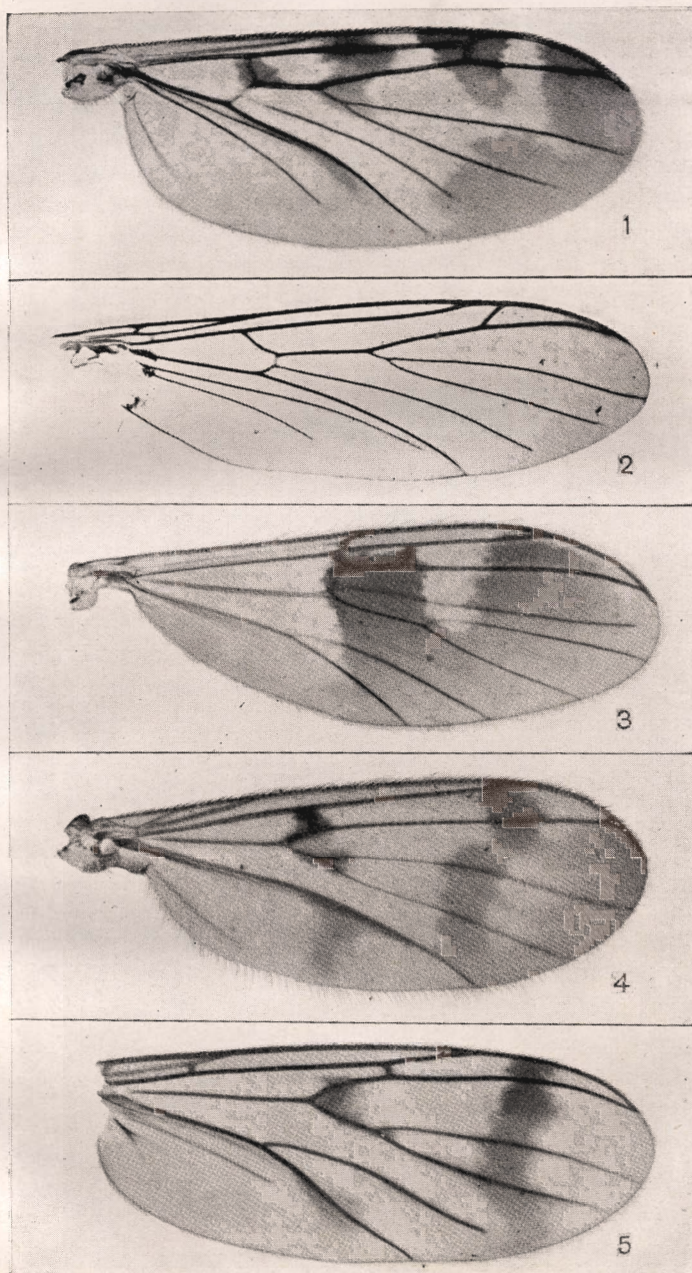


Fig. 1. *Ceroptatus (Neoceroptatus) minimax* Edw. var. ? — Fig. 2. *Platyra (Platyra) sabrensis* Edw. — Fig. 3. *Neoempheria peretrai* Edw. — Fig. 4. *Cluzobra lanei* Edw. — Fig. 5. *Leia incompleta* Edw.