# NEOTROPICAL MYCETOPHILA MEIGEN EXCLUDING THOSE OF THE CHILEAN SUBREGION.

(DIPTERA: MYCETOPHILIDAE.)\*

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Manuscript received 10th May, 1954.

(Read 3rd November, 1954.)

With 22 Text-figures.

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#### I. Introduction and Acknowledgments.

THE study of subgeneric concepts in this genus was undertaken under the same conditions as those mentioned in my paper on *Epicypta*.<sup>1</sup> Once again I wish to express my indebtedness to Mr. Paul Freeman of the British Museum (Nat. Hist.) for his inestimable help.

The species studied are grouped under three subgenera, of which two are considered new. I am also able to state that all the species treated by Freeman (1951) belong to *Mycetophila* "sensu lato." A number of his species seem to belong to *Abmyceta* subgen. n. but none to my other new subgenus, *Oromyceta*.

Two other subgenera are considered as valid and are found in the Nearctic region; they are Mycothera Winnertz, 1863 and Opistholoba Mik, 1891.

Part of the material studied comprises a loan made by the British Museum (Nat. Hist.). These specimens are from Brazil, State of Santa Catarina, Nova Teutonia, and were collected by Mr. Fritz Plaumann. Holotypes described from this material are to be returned to the above Institution; paratypes have been retained in our collection, as mentioned in this paper. Most specific names are given from American tribes of Indians.

I take great pleasure in expressing my thanks to the Trustees of the British Museum (Nat. Hist.) and the Instituto Miguel Lillo of Tucuman, Argentina,

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<sup>1</sup> Revision of the genus *Epicypta* Winnertz, 1863, in the Neotropical Region. 1954, Rev. Brasil Ent., S. Paulo 2:111-138.

for the loan of material. The drawings which illustrate this paper were made by Mr. E. B. Ferraz with the aid of a teamera luckia?

A key for the new subgenera created here is given below;

# H. Key for the Separation of the General Dicyon and Mychophia.

#### III. Key to the Subgenera of Mycetophila.

2 Mid fibia with ventral setae present or absent; when present they are weak and shorter than the internals except in M. recural which has a single very ong ventral leta). Male genitally with the fused lobes of basistyle hollowed but so as to receive the songare and movable lobe of dististive.

Mid tibia with one snort and two long ventral setae except in a few cases when a single central seta is present). Male genitalia with the fused lobes of basistyles not hollowed out. Dististyles apical Abmyceta subgen, n.

.)

3 Ventral setae absent. Lower vein of posterior fork not abbreviated so that it reaches the wing margin. Katepisternire elightly smaller in area than the anepisternite. Pteropleurite strapsike and not constricted mesially. Mycetophila s. str.

Ventral setae present but weaker than the internals. Lower vein of the posterior fork abbreviated at apex and far from the wing margin.

Pteropleurite phalanx-shaped . . . . . . . . . . Oromyceta subgen. a.

# IV. The Species of Mycetopinia Meigen.

# Mycetophila Meigen, 1803.

Fungirora Meigen 7, 7 1800, Nouv. Class. Monches: 16. No type or species.

Mycetophila Meigen, 1803, Mag. Insektenk. Illiger) 2:263. Meigen, 1804, Mass. 1:90

Type Tipula Jungorum De Geer, 1776.

Edwards, 1925, Trans. ent. Soc. Lond. 1925: 631.

Freeman, 1951, Dipt. Patagonia & S. Title 1 (3): 97-131.

Fungivora Shaw, 1952, Dipt. Connecticut 30 (5): 200, 204.

Mucetonhila Lane, 1952, Dusenia 3 (6): 421.

The delimitations of this subgenus are those aiready given in the above mentioned publication.

# Mycetophila (Mycetophila) conjuncta Freeman, 1951.

Mycetophila Freeman, 1951, Dipr. Patagonia & 3. (Thile 1 (3): 117.

Since 1949 I have had in my possession a peculiar female specimen from Brazil: State of S. Paulo, Jampos do Jordão 1600-1700 m. ait.), viii.1949 (J. Lane).

<sup>4</sup> The proportions are the same. Figs. 1-3 show both lobes of dististyle. Figs. 7-22 show basistyles connected with the dististyles on one side: on the right apper corner the mesosome is represented and on the lower one the light terrate.

I am now able to identify it as the above species and find that it agrees with the original description. The finding of a species in Brazil hitherto restricted to the Chilean subregion is extraordinary.

#### Oromyceta subgen. n.

Wing with long Sc. Posterior fork beyond the anterior onc. Lower vein of posterior fork not reaching the wing margin and quite abbreviated. Pteropleurite phalanx-shaped; katepisternite half the area of an episternite. Mid tibia with two to five weak and displaced ventral setae except in *M. arecunai* sp. n., which has one very long ventral seta and also subdorsal setae on mid and hind tibiae. Tibial setulae in rows.

Genitalia of the general type of *Mycetophila* s. str., but the longer lobe of dististyle shortened. Mesosome generally broader. Ninth tergites shorter than the height of basistyles.

Note.—M. arecunai sp. n., in addition to peculiarities in the arrangement of the tibial setae, has the dististyle with the general appearance of two superimposed triangles. Probably this species belongs to yet another subgenus, but it is placed here for the present.

Type species Mycetophila (Oromyceta) javaesi sp. n. described below.

## Key to the species of the Subgenus Oromyceta.

1 Mesial wing spot not invading the costal cell . . . Mesial wing spot invading the costal cell; haltere with yellowish stem wygodzinskyi (Lane, 1947). and blackish knob . . . . . . . . 2 Posterior fork with the branches about as long as its stem . . . Posterior fork with the branches half the length of its stem; halteres Veins of anterior and posterior fork not reaching wing margin; halteres with yellow stem and blackish knob . . . . . . . . ferrazi sp. n. 4 Halteres with yellowish stem and blackish knob; mid and hind tibiae darkened at apex . . Halteres yellowish; mesial wing spot oblong and more than three times as long as wide; mid and hind tibiae yellowish tucunensis sp. n. 5 Wing spot about twice as long as wide; male genitalia with the short plate of dististyle bearing numerous spicules . . . . javaesi sp. n. Wing spot nearly quadrate; short plate of dististyle only with three differentiated setae on its upper margin . . . . saltanensis sp. n.

## Mycetophila (Oromyceta) wygodzinskyi (Lane, 1947).

Delopsis wygodzinskyi, Lane, 1947, Rev. Ent., Rio de J. 18: 457.

The ventral setae are weaker and shorter than the internal ones and could not be seen in one specimen. Fig. 1 illustrates the details of the dististyle of the male genitalia.

Distribution.—Costa Rica: San Mateo, Higuito, no date (Pablo Schild); Brazil: State of Santa Catarina, Nova Teutonia, several dates (Fritz Plaumann); Argentina: Salta, Aguaray, ii. 1950 (H. Golbach).

TRANS. R. ENT. SOC. LOND. 106. Pt. 10. (SEPT. 1955).

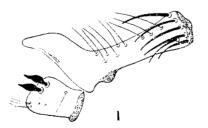


Fig. 1.—Mycetophila (Oromyceta) wygodzinskyi (Lane, 1947). Dististyle.

#### Mycetophila (Oromyceta) arecunai sp. n.

Male.—Head: Palpus yellowish, mouth parts and elypeus brown. Antenna with scape, torus and several basal segments yellowish, the rest darkened. Occiput dark brown in front, lighter behind.

Thorax: Mesonotum yellowish, with golden hairs and dark setae. Scutellum yellowish. Pleura yellowish, the upper and lower margin of anepisternite with brown marks; hypopleurite with posterior hairs.

Wing with a diluted mesial spot, the apex darkened. Posterior fork with both veins free and half the length of its stem vein. Halteres yellowish.

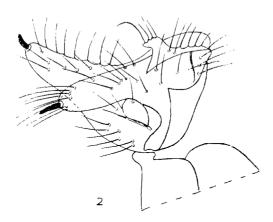


Fig. 2.—Mycetophila (Oromyceta) arecunai sp. n. Dististyle.

Legs yellowish, the hind femur dorsally darkened apically. Mid tibia with 5 dorsal, 4 subdorsal, 3 external, 1 very long ventral and 2 long and 2 short internal setae. Hind tibia with 5 dorsal, 3/4 subdorsal and 6 external setae.

Abdomen not preserved.

Genitalia: Basistyles with the lobes fused, subquadrate. Dististyles as in fig. 2. Mesosome nearly rounded, the lateral portions higher than the middle one, which is rounded at apex. Ninth tergites subtriangular and shorter than the length of basistyle.

Female.—Unknown.

Holotype male, Brazil: State of S. Paulo, Salesópolis, Boracéa, viii. 1947 (J. Lane). Registered in our collections under number 9.049.

## Mycetophila (Oromyceta) ferrazi sp. n.

Male.—Head: Mouth parts, palpus and clypeus light brown. Antenna with scape, torus and basal flagellar segments yellowish, the rest darkened. Occiput brown.

Thorax: Mesonotum yellowish, slightly darker in the middle in front; covered with golden hairs and dark setae. Scutellum yellowish. Pleura yellowish, posterior margin of pleurotergite and hypopleurite brown, the hypopleurite with posterior setae.

Wing with a very diluted mesial spot, the apex slightly darkened anteriorly. Posterior fork with the veins slightly shorter than its stem. Veins of both forks not reaching wing margin. Halteres with only a darkened portion at base of knob, the rest yellowish.

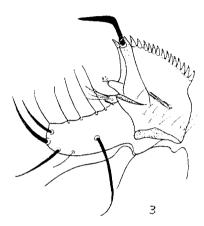


Fig. 3.—Mycetophila (Oromyceta) ferrazi sp. n. Dististyle.

Legs yellowish, mid and hind femora darkened dorsally. Mid tibia with 5 dorsal, 2 external, 2 ventral and 3/4 internal setae. Hind tibia with 5 dorsal, 8 external and 3/4 internal setae.

Abdomen not preserved.

Genitalia: Basistyles with fused lobe, subquadrate, upper margin with a row of differentiated setae. Dististyle as in fig. 3. Mesosome broad, the lateral portions ending in somewhat pointed structures, the mesial one rounded. Ninth tergites subtriangular and shorter than length of basistyles.

Female.—Unknown.

Holotype male, Brazil : State of S. Paulo, Salesópolis, Boracéa, xi.1947  $(J.\ Lane)$ . Registered in our collections under number 8.026.

Note.—This species is named in honour of my old friend Mr. E. B. Ferraz of the Faculdade de Higiene e Saúde Pública.

#### Mycetophila (Oromyceta) javaesi sp. n.

Male.—Head: Palpus and mouth parts light brown. Antenna with scape, torus and first seven or eight flagellar segments yellow, the rest blackish. Occiput yellowish-brown, slightly darker in the middle.

Thorax: Mesonotum yellow or light brown, lighter on the sides; with two small prescutellar spots; covered with yellowish hairs and very small setae. Scutellum brownish, lighter in the middle. Pleura brown; base of pteropleurite, part of katepisternite and hypopleurite yellowish: hypopleurite with hairs.

Wing with a dark brown spot which is from one and a half to twice as long as wide and from Rs to base of anterior fork. Posterior fork about as long as its stem vein; lower vein of posterior fork shortened and far from wing margin. Halteres with yellow stem and blackish knob.

Legs yellowish except apex of hind femur, mid and hind tibiae which are dark brown. Mid tibia with 5 dorsal, 3 external, 5 small ventral, 2 long and 1 short internal setae. Hind tibia with 5 dorsal, 6 external and a row of about 8 internal setae.

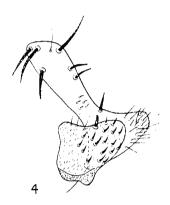


Fig. 4.—Mycetophila (Oromyceta) jaraesi sp. n. Dististyle.

Abdomen blackish with apical lighter bands and yellow ventral marks on segments III and IV.

Genitalia yellowish. Basistyles with the lobes fused, longer than broad. Dististyles as in fig. 4. Mesosome ovate, the lateral portions higher than the middle one, which is rounded at apex. Ninth tergites subtriangular and shorter than the length of basistyles. Female.—Similar to the male. Cerci small and slender.

Holotype male; allotype female; paratypes, seventeen males and fourteen females. Seven paratypes retained and registered under number 9.400 to 9.406. Holotype, allotype and thirteen paratypes returned to the British Museum (Nat. Hist.). One paratype returned to the United States National Museum, Washington, D.C.

Type locality.—Brazil: State of Santa Catarina, Nova Teutonia, v.vi.viii. 1938 (Fritz Plaumann); one paratype from the State of Rio de Janeiro: Terezópolis, 1940 (Travassos & Freitas); one paratype from Созта Rica: San Mateo, no date (Pablo Schild).

## Mycetophila (Oromyceta) saltanensis sp. n.

Male and female.—Similar to M. jaraesi sp. n. except that the katepisternite seems to be much more extensively yellow and the wing spot is nearly quadrate.

Male genitalia: Basistyles with the lobes fused and broader than long. Dististyle as in fig. 5. Mesosome broad, the mesial portion ending in a broad and round head, the lateral ones surpassing the mesial portion. Ninth tergites about two-thirds as long as the length of basistyles.

Holotype male; allotype female; paratypes, three males. Two paratypes to be retained in our collections under numbers 10.195 and 10.196. Holotype,

allotype and one paratype to be returned to the Instituto Miguel Lillo, Tucuman, Argentina.

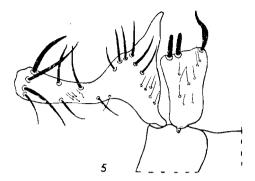


Fig. 5.—Mycetophila (Oromyceta) saltanensis sp. n. Dististyle.

Type locality.—Holotype from Argentina: Salta, Urundel, ii.1950; allotype from Tartagal, ii.1950; paratypes from Aguaray, ii.1950 (H. Golbach).

#### Mycetophila (Oromyceta) tucunensis sp. n.

Male.—Head: Mouth parts and palpus yellowish-brown. Antenna with scape and torus yellowish as well as base of second and third flagellar segments, the rest darkened. Occiput yellowish-brown with a slight indication of a mesial darker line.

Thorax: Mesonotum yellowish-brown with golden longish hairs and setae. Scutellum brown. Pleura brown except base of katepisternite and pteropleurite; hypopleurite brown with a few hairs.

Wing yellowish anteriorly with a large dark brown mesial spot which is oblong and irregular at base and from Rs to base of anterior fork. Posterior fork large and nearly as long as its petiole, the lower branch quite distant from wing margin. Halteres yellowish.

Legs yellowish. Mid tibia with 4 dorsal, 3 external, 4 ventral and 2 long and 1 short internal setae. Hind legs missing.

Abdomen blackish with broad yellowish bands on segments III and IV.



Fig. 6.—Mycetophila (Oromyceta) tucunensis sp. n. Dististyle.

Genitalia: Basistyles with the lobes fused and broader than long. Dististyles as in fig. 6. Mesosome broad, the mesial portion ending in a broad round head, the lateral portions surpassing the mesial one. Ninth tergites about two-thirds the length of basistyles.

TRANS. R. ENT. SOC. LOND. 106. PT. 10. (SEPT. 1955).

F-male.—Similar to male. Posterior tibia with 4 long dorsal, 5 long and one short external and a row of 6/7 internal setae. Cerci slender, brown.

Types.—Holotype male: allotype female, Brazil: State of Santa Catarina, Nova Teutonia, vi. vii. 1938 (Fritz Planmann).—In British Museum (Nat. Hist.).

#### Abmyceta subgen, n.

Wing with short Sc.; posterior fork beyond the anterior one, petiole of M equal to r-m. Postnotum elongate or quadrate, setose. Anterior pronotum with 2/3 setae. Anepisternite quadrate or longer than broad, setose or setose and setulose, with 2/4 setae. Katepisternite nude. Pteropleurite generally strap-like, occasionally phalaux-shaped, with 3/4 stout setae on its upper margin. Hypopleurite setose. Mesonotum dull, setose and setulose.

Mid and hind tibiae with the setalae in rows. Subdorsal setae absent (except in M, rnfa (Lane, 1948). Mid tibia with 1-2 or 2 ventral setae (in M, forattinii sp. n., M, nboyasi sp. n. and M, punensis sp. n. with a single stout seta).

Male genitalia with the lobes of basistyles fused and usually broader than long. Dististyle formed by several lobes with differentiated serae. Ninth tergites usually shorter than the length of basistyle.

Type species Mycetophila (Abmyceta) galibisi sp. n., described below.

The following known species are included in this subgenus: M. barrettoi (Lane, 1947), M. borymeieri Edwards, 1932, M. humboldti (Lane, 1948), M. phyripunctata (Lane, 1948), M. rafa (Lane, 1948), M. tapinirai, n. n. (for M. confusa Lane, 1948), M. travassosi (Lane, 1948) and M. winnertzi (Lane, 1948).

The following new species, which are described in this paper, are also included: caribai, caripanai, caquensis, demacuri, cramanensis, forattinii, galibisi, guatensis, jurii, kunasensis, jurunensis, punensis, uaicensis, uboyasi, gurimanesi and xamasensis.

# Key to the Species of the Subgenus Abmyceta.

1	Hind tibia without subdorsal setae	2
	Hind tibia with subdorsal setae: mesonotum reddish: wing with two	
	marks, the mesial one invading the costal cell rufa (Lane, 194	(8)
2	Wing unicolorous	3
	Wing with one or two markings	13
3	Mesonotum marked with spots or stripes	5
	Mesonotum without marks, at least over most of the disk	1
1	Mesonotum blackish, only the posterior angle whitish: halteres with	
	whitish stem and blackish knob forattinii sp.	n.
	Mesonotum yellowish and without distinct marks; halteres yellow	
	caribai sp.	
	caripunai sp.	11.
	cayuensis sp.	n.
ō	Mesonotum with spots or lines but without large marks	6
	Mesonotum with three large marks over most of the disk	9
$_{ij}$	Costal vein not beyond Rs.: mesonotum with a large prescutellar black	
	mark but without spots	7
	Costal vein beyond Rs.: mesonotum with eight blackish spots besides	
	the longitudinal line (the anterior spots may fuse): occiput crossed	
	by a broad mesial line: mid tibia with 2 ventral, 3 external, and	
	I internal setae pluripunctata (Lane, 194	18)

7	Prescutellar mark not U-shaped
8	travassosi (Lane, 1948).  Mesonotum with a longitudinal line which traverses the disk and ends in the large prescutellar spot
0	Mesonotum with the pattern formed by three indistinct colours  barrettoi (Lane, 1947)  Mesonotal marks blackish
IJ	Mesonotal marks blackish
10	Mesonotal marks large, narrowly separated, ground colour yellowish: inid tibia with 2 stout ventral setae borgmeieri (Edwards, 1932)
	Mesonotal marks narrower, ground colour greyish; mid tibia with 1 weak seta
11	Hypopleurite brownish
12	Hind coxa with a basal black mark
13	Wing with a single mesial spot
	Mesonotum with markings
15	Mesonotum with three blackish lines over a brown ground colour, the sides yellowish-white; mid and hind femora slightly darker at apex; mid tibia with 1 ventral, 2 external and 3 internal setae. uboyasi sp. n.
	Not so coloured
16	Mesonotum dark brown, whitish at the sides, with dark marks on prescutellar region and over root of wing; hind femur darkened dorsally; mid tibia with 5 dorsal, 3/4 ventral and 3 internal setae  winnertzi (Lane 1948)
	Mesonotum dark brown anteriorly and whitish posteriorly; hind femur darkened dorsally; mid tibia with 2 ventral, 3 external and 3 internal
17	Mesonotum not marked
	Mesonotum with a cuneiform yellow anterior mark, a blackish spot over root of wing, two darker stripes on prescutellar region; mid and hind coxae darkened at apex; mid and hind femora darkened at apex; mid tibia with 2 ventral, 4 external and 2 internal long setae.
18	jurii sp. n. Wing with an apical stripe
	Wing without a stripe but with an apical spot or shading 20
19	Mesial spot invading the costal cell; mid tibia with 1 + 2 ventral, 3 external and 3 internal setae; the veins of both forks not reaching the wing margin
	Mesial spot not invading the costal cell; mid tibia with 2 ventral, 3 external and 5 internal setae; the veins of both forks reaching the wing margin eramanensis sp. n.
20	Mesonotum brown
	vein of anterior fork kunasensis sp. n.

Macetophila (Abmyceta) Sorymeleri Edwards, 1932.

Mycetophila Edwards, 1922. Rev. Ent., S. Paulo 2: 149. Lane, 1948, Sid. 19:258.

Additional distribution.—Brazili: State of Santa Catarina, Nova Teutonia, several dates (Fritz Plaumann). Numerous specimens.

#### Mycetophila (Abmyceta) caribai sp. a.

Male.—Head: Mouth parts and palpus brown. Antenna with scape, forus and first two segments rellowish, succeeding segments rellow at base, dark at apex, ferminal segments darkened. Geeiput rellowish-brown.

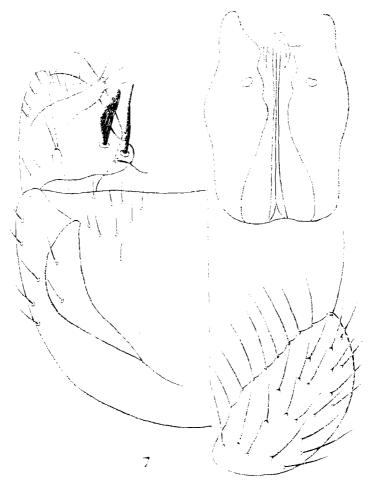


Fig. 7.—Mycetophila (Abmyceta) varibai sp. n. Basistyle and dististyle: mesosome and ninth territes.

Thorax yellowish. Mesonotum with brown setae and hairs; an episternite darker at base; hypopleurite with posterior setae.

Legs yellowish. Mid tibia with 5 dorsal, 1+2 ventral, 3 external and 2 internal setae. Hind tibia with 5 dorsal and 6 external setae.

Wing hyaline. Posterior fork beyond anterior one. Halteres vellow.

Abdomen not observed.

Genitalia (fig. 7): Basistyles with lobes fused, subquadrate, nearly as high as broad, setose. Dististyle divided in two structures; the largest two-thirds as long as basistyle and with short setae; the smaller lobe forming a protuberance which bears a large leaf internally and a differentiated seta. Mesosome and ninth tergites as in figure.

Female.--Unknown.

Type.—Holotype male. Brazil: State of S. Paulo, Salesópolis, Boracéa, xi. 1947 (J. Lane). Registered under No. 8.030.

Note.—There is a possibility that this species, or one of those included in this and subsequent dichotomies, is *P. ornatidorsum* (Enderlein, 1911). The identity of *P. ornatidorsum* (Enderlein, 1911) can only be established after a re-examination of the type.

#### Mycetophila (Abmyceta) caripunai sp. n.

Male.—Similar to P. caribai but the mesonotum is slightly darker and the mark of an episternite is absent. Abdomen blackish.

Genitalia (fig. 8): Basistyles with lobes fused, broader than long. Dististyle divided into two lobes; the external in two points, one with a lunate structure before apex, the other a protuberance bearing two differentiated setae at apex; second lobe a lamellate structure ending in two setae. Mesosome and ninth tergites as in figure.

Female.—I have associated females captured at same date and locality with this species.

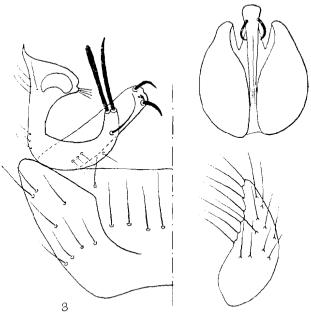


Fig. 8.—Mycetophila (Abmyceta) caripunai sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Holotype male; allotype female; paratypes, seven males and five females, Brazil: State of Santa Catarina, Nova Teutonia, vi.vii.x.1938 (*Fritz Planmann*). Six paratypes registered under Nos. 7.765 to 7.770.

## Mycetophila (Abmyceta) cayuensis sp. n.

Male.—Similar to M. (A.) caripunai sp. n.

Genitalia (fig. 9): Basistyles with lobes fused, broader than long, with mesial differentiated stout setae. Dististyle divided in two lobes; the first forming a curved arm ornamented with setae which are turned upwards and reach the apex with an elongate

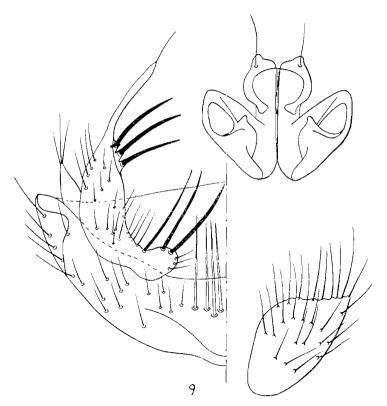


Fig. 9.—Mycetophila (Abmyceta) cayuensis sp. n. Basistyle and dististyle: mesosome and ninth tergites.

apical point, internally there are three spinelike filaments; second lobe a finger-shaped structure. Mesosome and ninth tergites as in the figure.

Female.—I have associated with this species ten females captured at the same locality and date.

Holotype male; allotype female; paratypes, four males and ten females, Brazil: State of S. Paulo, Salesópolis, Boracéa, xi. 1947 (*J. Lane*). Holotype, allotype and seven paratypes registered in our collections under Nos. 7.756 to 7.764. Paratypes sent to the British Museum (Nat. Hist.).

#### Mycetophila (Abmyceta) demacuri sp. n.

Male.—Head: Mouth parts and palpus light brown. Antenna with yellowish scape, torus and four or five flagellar segments, the rest darkened. Occiput yellowish-brown.

Thorax: Mesonotum yellowish-brown, with sparse longish blackish scattered setae and short golden hairs. Scutellum yellowish. Pleura brown, the pteropleurite whitish at base; hypopleurite brownish with a few posterior hairs.

Legs yellow, the dorsal margin of mid and hind femora brownish. Mid tibia with 5 dorsal (two smaller), 3 external, 1+2 ventral and 3 internal setae. Hind tibia with 5 dorsal (two smaller), 8 external, and a row of very short internal setae.

Wing with two dark brown marks; the first mesial and from costa reaches stem of M; the second is a subapical stripe from near apex of Rs reaching the posterior fork where it becomes diluted. Posterior fork beyond the anterior one, the veins not reaching wing margin. Haltere with yellow stem and brown knob.

Abdomen blackish with long coppery hairs.

Genitalia (fig. 10): Basistyles with fused lobes which are broader than long. Dististyle with a large lobe ending in a blunt point with a stout subapical seta, a slender lobe with two stout setae at apex, then two small protuberances, one which ends in a seta; another

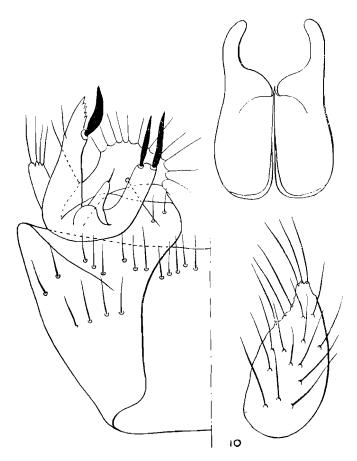


Fig. 10.—Mycetophila (Abmyceta) demacuri sp. n. Basistyle and dististyle; mesosome and ninth tergites.

expanded lobe with a row of setae on its margin. Mesosome and ninth tergites as in figure. Female.—Similar to the male. Cerci short and rounded, invaginated.

Holotype male; allotype female; paratypes, twelve males and six females, Brazil: State of Santa Catarina, Nova Teutonia, v.vii.viii.1937-1938 (*Fritz Plaumann*). Five paratypes retained under Nos. 9.408 to 9.412.

Note.—This species would fit in Oromyceta except that there are developed ventral mid tibial setae and the structures of male genitalia show that it belongs to the present subgenus.

### Mycetophila (Abmyceta) eramanensis sp. n.

Male.—Head: Mouth parts and palpus brown. Antenna with scape, torus and first five flagellar segments yellowish, the rest darkened. Occiput brown.

Thorax yellowish. Pleurotergite darkened posteriorly; hypopleurite with hairs.

Legs yellow. Mid tibia with 5 dorsal (two smaller), 3 external, 2 ventral and 5 internal setae. Hind tibia with 5 dorsal, 6 external, and a row of short internal setae.

Wing with two blackish marks; the first is mesial, quadrate and from Rs extends beyond the lower vein of anterior fork; the second is from Rs and reaches the lower vein of posterior fork. Posterior fork beyond the anterior. Halteres yellow, the stem brown on its distal portion.

Abdomen blackish, base of tergite I lighter.

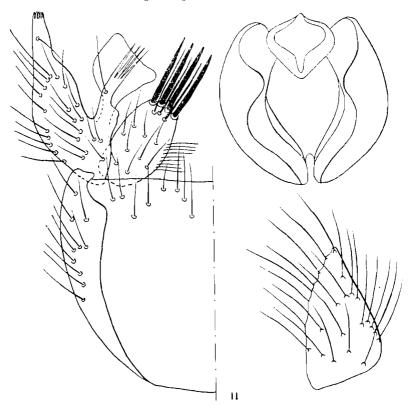


Fig. 11.—Mycetophila (Abmyceta) eramanensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Genitalia invaginated (fig. 11). Basistyles with fused lobes, subquadrate, broader than long, the upper margin nearly plane. Dististyle with two lobes; the first finger shaped and ending in four stout setae and a few slenderer ones; second lobe longer and ending in a protuberance, basally with two internal projections, the first of these capitate and nude, the second elongate and setose. Mesosome and ninth tergites as in figure.

Female.—Unknown.

Types.—Holotype male; paratype, one male. Paratype registered under No. 9.407.

Type locality.—Holotype from Brazil: State of Santa Catarina, Nova Teutonia, vii.1938 (Fritz Plaumann); paratype from the State of S. Paulo, Campos do Jordão, viii.1949 (J. Lane).

#### Mycetophila (Abmyceta) forattinii sp. n.

Male.—Head: Mouth parts and palpus brown. Antenna with yellowish scape, torus and other segments darkened. Occiput blackish-brown.

Thorax: Mesonotum blackish-brown, the posterior angles with distinct yellowish-white marks; covered with blackish hairs and setae. Scutellum blackish, the lateral angles narrowly yellowish-white in continuation of the mesonotal marking. Pleura blackish except the spiracular sclerite and anteriorly, the katepisternite and base of pteropleurite which are yellowish; hypopleurite whitish, its posterior border with minute hairs and darkened.

Wing unicolorous, smoky. Both forks nearly at the same level, but the posterior one a little beyond the anterior one. Veins of forks not reaching the wing margin except the lower vein of posterior fork. Halteres with yellowish stem and blackish knob.

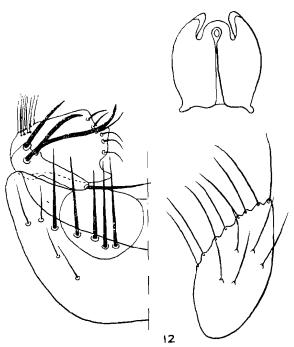


Fig. 12.—Mycetophila (Abmyceta) forattinii sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Legs with yellowish coxae; femora yellowish but dorsal margin and apex of mid and hind ones darkened. Tibiae dark. Mid tibia with 4 dorsal, I external, I ventral, 3 internal setae. Hind tibia with 4 dorsal and 8 external setae.

Abdomen blackish.

Genitalia (fig. 12): Basistyles with fused lobes, broader than long, with stout setae on internal margin, a rounded structure at each side. Dististyle as in figure, with four stout setae on larger lobe. Mesosome and ninth tergites as in figure.

Female. -- Similar to the male. Cerci small and rounded.

Types.—Holotype male; allotype female; paratypes, one male and one female. Holotype and allotype registered under Nos. 10,221 and 10,222. Paratypes to be returned to the British Museum (Nat. Hist.).

Type locality.—Brazil: State of S. Paulo, Presidente Wenceslau, Faz, Guanabara, xi. 1951 (O. P. Forattini). Allotype and pararypes from State of Santa Catarina, Nova Teutonia, v. vii. 1938 (Fritz Physicala).

Note.—This species is named in honour of my friend Dr. O. P. Forattini of the Faculdade de Higiene e Saúde Publica, S. Paulo, Brasil.

## Mycetophila (Abmyceta) galibisi sp. a.

Male,—Head: Mouth parts and palpus light brown. Antenna with yellowish scape, torus and first flagellar segments, the rest darkened. Occious brown.

Thorax: Mesonotum and scutellum brownish-yellow. Pleara brown; katepisternite yellowish, posteriorly darker and with setae.

Wing with a diluted mesial brown spor from Rs to base of M, upex very lightly (inged with yellow. Posterior fork distinctly beyond the anterior one. Halteres yellowish.

Legs yellow, the hind femur brownish dorsally. Mid tibia with 5 dorsal, 2 = 1 ventral, 3 external and 4 internal setae. Hind tibia with 5 dorsal, 7 external and 4 row of small internal setae.

Abdomen blackish with narrow apical whitish bands.

Genilalia (fig. 13): Basistyles with fused lobes. Dististyle with short and complex lobes and differentiated setae as in figure. Mesosome and unith regites as in figure.

Female.—Similar to the male. Cerei yellow, clougate and small. Mesosome and muth tergites as in the figure.

Types.—Holotype male; allotype female; paratypes, three males and five females. Registered under Nos. 7.867 to 7.870. Paratypes returned to the British Museum (Nat. Hist.).

Type locality.—Holotype, allotype and two paratypes from Brazil.: State of S. Paulo, Boracéa, xi. 1946 (Rabello, Travasson Ford J. Lone): six paratypes from State of Santa Catarina, Nova Teutonia, vii. viii. ix. 1938 (Pritz Phanmann).

# Mycetophila (Abmyceta) guatensis sp. n.

Male.—"Tead: Mouth parts and palpus yellowish. Antenna with cape, torus and dist three or four segments yellowish, the rest darkened. Occiput brown.

Thorax: Mesonotum brown with white pruinosity: with very short setae and gellow hairs. Scutellum brown, darker on the sides. Pleura dark brown: katepisternite gellowish, posterior margin whitish: hypopleurite dark brown with posterior setae.

Wing with two blackish marks; the first from Rs to upper vein of anterior fork, the second submicial, along costa but not reaching the upper vein of anterior fork. Posterior fork distal to the anterior. Halteres yellowish.

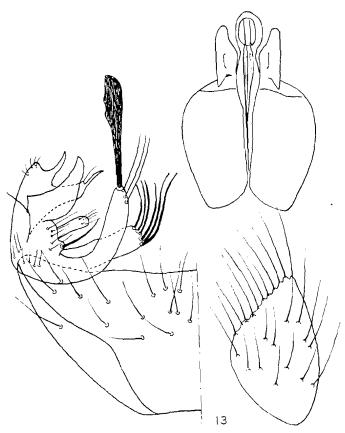


Fig. 13.—Mycetophila (Abmyceta) galibisi sp. n. Basistylo and dististyle; mesosome and ninth tergites.

Legs yellow; mid and hind femora and tibiae slightly darker at apex. Mid tibia with 5 dorsal (one small), 3 external, 1+2 ventral and 3 internal setue. Hind tibia with 5 dorsal, 7 external and a row of short internal setae.

Abdomen black with long coppery hairs.

Genitalia small and invaginated (fig. 14). Basistyles with fused lobes. Dististyle with first-lobe elongate, bearing a smooth structure from which a fringe of long hairs emerges; second lobe curved, with many protuberances and setae and a large, strong differentiated seta in the middle. Mesosome and ninth tergites as in the figure.

Female. -- Similar to the male, genitalia yellowish, cerei short and rounded.

Holotype male; allotype female; paratypes, two males and one female. Brazil: State of Santa Catarina, Nova Teutonia, v.vii.viii.1938 (Fritz Plaumann). Two paratypes retained and registered under Nos. 9.413 and 9.414.

Mycetophila (Abmyceta) humboldti (Lane, 1948).

Delopsis Lane, 1948, Rev. Ent., Rio de J. 19: 273.

I have selected one of the females from Santa Catarina as the allotype of this species.

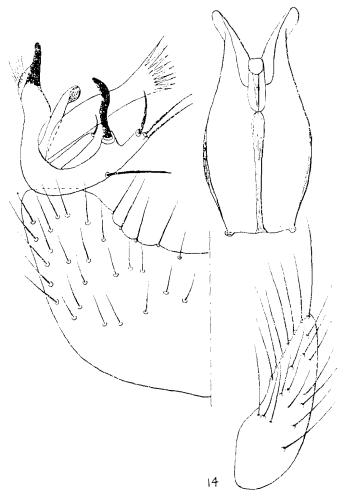


Fig. 14.—Mycetophila (Abmyceta) guatensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Female.—Similar to male. Cerei small and rounded.

Allotype female. Registered under No. 7.771.

Distribution.—Brazil: State of S. Paulo, Salesópolis, Boracéa, viii.1948 (M. P. Barretto) two males; State of Santa Catarina, Nova Teutonia, vi.viii. x.1938 (Fritz Plaumann), nine specimens.

## Mycetophila (Abmyceta) jurunensis sp. n.

Male.—Head: Mouth parts and palpus light brown. Antenna with scape, torus and base of first five segments yellowish at base, the rest darkened. Occiput brown.

Thorax: Mesonotum brown, lighter in the centre and with an indistinct indication of median lines; prescutellar region with two brown spots between a yellowish line. Scutel-

lum yellowish in the middle, darkened on the sides. Pleura dark brown; katepisternite lighter; hypopleurite brown with posterior setae.

Wing with the mesial spot from Rs to upper vein of anterior fork; apically with a dark shading which does not reach the upper vein of anterior fork. Posterior fork beyond the anterior. Halteres yellowish.

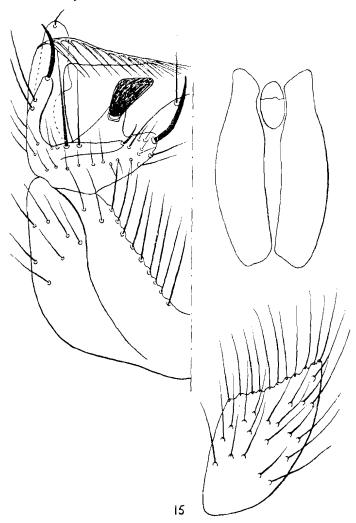


Fig. 15.—Mycetophila (Abmyceta) jurunensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Legs with yellowish coxae; trochanters darkened; mid and hind femora blackish at apex, more so on the hind one. Mid and hind tibiae darkened at apex. Mid tibia with 5 dorsal, 3 external, 1-2 ventral and 3 internal setae. Hind tibia with 4 dorsal and 9 external setae.

Abdomen blackish.

Genitalia (fig. 15): Basistyles with lobes fused, an internal anterior row of setae, the lobes broader than long. Dististyle with structures as in figure, but an upper structure

which is expanded and fan-shaped, with setae on margin, is shown on edge. Mesosome and ninth tergites as in the figure.

Female.—Similar to the male. Cerci small and rounded.

Types.—Holotype male; allotype female; paratypes, two males. Registered under Nos. 10.197 to 10.199. One paratype to be returned to the British Museum (Nat. Hist.).

Type locality.—Brazil: State of S. Paulo, S. Miguel Archaujo, Turvo, x.1953 (J. Lane); one paratype from State of S. Catarina, Nova Teutonia, vi.1938 (Fritz Plaumann).

#### Mycetophila (Abmyceta) jurii sp. n.

Male.—Head: Mouth parts and palpus reddish-brown. Antenna with scape, torus and first two flagellar segments yellowish, the rest darkened. Occiput blackish.

Thorax: Mesonotum anteriorly shining yellowish, the sides whitish, posteriorly brown, a blackish spot over the root of wing; with golden hairs and black setae. Scutellum blackish basally, this colour reaching the prescutellar region, the rest yellowish. Pleura with whitish katepisternite; anepisternite yellowish, above and behind blackish, the rest brown; hypopleurite brown and with posterior setae.

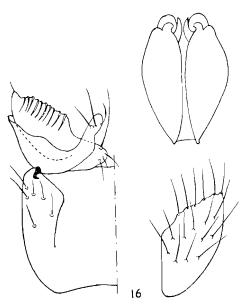


Fig. 16.—Mycetophila (Abmyceta) kunasensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Wing with two black marks; the first large, quadrate and from R1 slightly surpassing the petiole of M; the second at base of apical third, from R1 to upper vein of anterior fork. Posterior fork distinctly beyond the anterior. Halteres yellowish.

Legs: Coxae whitish, mid with a blackish apical spot, hind pair blackish at base and apex. Femora yellowish except at apex of mid and more so on hind pair which are blackish. Tibiae yellowish, apex of mid and hind ones blackish. Mid tibia with 5 dorsal, 4 external, 2 long ventral and 2 internal setae. Hind tibia with 5 dorsal and 6 external setae.

Abdomen shining black.

Genitalia (fig. 18): Basistyles with fused lobe, slightly longer than broad. Dististyle with a lobe nearly as long as basistyle, basally expanded, with two protuberances and enlarged from base to middle; one of these expansions horn-shaped, the other setose at apex; apical portion slender and elongate. Mesosome rounded, with two latero-superior flaps as in figure. Ninth tergites as in figure.

Female.—Similar to male. Last abdominal segment and cerci bright yellow.

Holotype male; allotype female, Brazil: State of S. Paulo, Salesópolis, Boracéa, iv.1948 (E. X. Rabello) and vi.1948 (J. Lane). Registered under Nos. 8.017 and 8,018.

#### Mycetophila (Abmyceta) kunasensis sp n.

Male.—Head: Mouth parts and palpus yellowish. Antenua with scape, torus and first two or three flagellar segments yellowish, the rest blackish. Occiput blackish.

Thorax: Mesonotum blackish. Scutellum blackish. Pleura blackish, the katepisternite and base of pteropleurite yellowish. Hypopleurite blackish with one or two posterior setae.

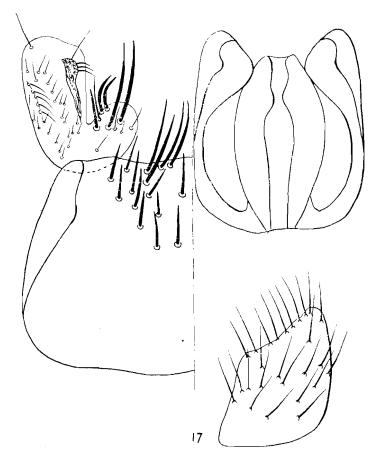


Fig. 17.—Mycetophila (Abmyceta) punensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Wing with the mesial spot from Rs to lower vein of anterior fork; the second spot which is subapical from Rs does not reach the upper vein of anterior fork and is somewhat rounded. Posterior fork quite beyond the anterior one. Halteres yellowish white.

Abdomen blackish.

Genitalia (fig. 16): Basistyles with fused lobes, nearly quadrate. Dististyles as in figure. Mesosome and ninth tergites as in figure.

Female.—Similar to the male. Cerci elongate and also blackish.

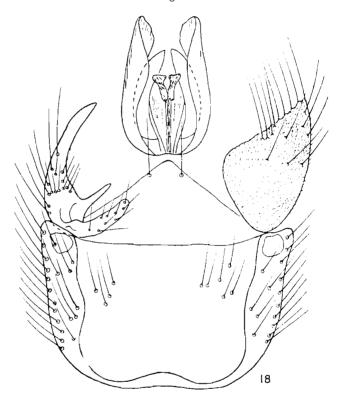


Fig. 18.—Mycetophila (Abmyceta) jurii sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Holotype male; allotype female; paratype, a male, Brazil: State of Santa Catarina, Nova Teutonia, vii.1938 (*Fritz Plaumann*). Paratype registered in our collection under No. 10.201. Holotype and allotype to be returned to the British Museum (Nat. Hist.).

Mycetophila (Abmyceta) pluripunctata (Lane, 1948).

Delopsis Lane, 1948, Rev. Ent., Rio de J. 19: 274.

There is a constant difference in the pattern of mesonotum in the specimens from Nova Teutonia and those from Boracéa. In the Nova Teutonia series the lateral spots are larger and coalesce while in the Boracéa specimens they remain distinct.

I did not mention, in my original diagnosis, that the costal vein extends a little beyond Rs.

Distribution.—Brazil: Santa Catarina, Nova Teutonia, vii.viii.1938, eight specimens. I have three additional specimens from State of S. Paulo, Salesópolis, vii.1949 (J. Lane & E. I. Coher).

#### Mycetophila (Abmyceta) punensis sp. n.

Male.—Head: Mouth parts and palpus yellowish-brown. Scape, torus and base of first segment yellowish, the rest darkened. Occiput grey.

Thorax: Mesonotum with grey ground colour, a median elongate blackish stripe which nearly reaches the prescutellar region and two sublateral ones from anterior third nearly to scutellum are also blackish; covering of dense decumbent and sparse setae; prescutellar setae an united pair. Scutellum grey. Pleura dark brown, base of pteropleurite yellowish; hypopleurite with setae posteriorly.

Wing unicolorous, smoky. Posterior fork distinctly distal to the anterior one. Halteres

yellowish.

Legs yellowish; mid tibia with 3 dorsal, 2 external, I weak ventral and 4 internal setae; hind tibia with 5 dorsal and 5 external setae.

Abdomen blackish.

Genitalia (fig. 17): Basistyle with the lobes fused, broader than long, with stout setae on upper inner margin. Dististyle single and as in the figure. Mesosome and ninth tergites as in the figure.

Female.—Unknown.

Holotype male; paratype male, Brazil: State of S. Paulo, Campos do Jordão, viii.1949 (*J. Lane*). Registered under Nos. 10.219 and 10.220.

## Mycetophila (Abmyceta) tapinirai n. n.

Mycetophila confusa Lane, 1948 (nec Dziedzicki), Rev. Ent., Rio de J. 19: 261.

I note that the name confusa is preoccupied by M. confusa Dziedzicki, 1886, and take this opportunity to rename my species tapinirai n. n.

Distribution.—Numerous specimens from the State of S. Paulo, Campos do Jordão, viii. 1949 (J. Lane).

#### Mycetophila (Abmyceta) uaicensis sp. n.

Male.—Head: Mouth parts and palpus brownish. Antenna with scape, torus and first five or six segments yellowish, the rest gradually darkened. Occiput brown.

Thorax: Mesonotum dark brown, anteriorly and posteriorly whitish; prescutellar region with a distinct yellowish mesial stripe. Scutellum brownish. Pleura brown including hypopleurite, which has posterior setae.

Wing with a narrow mesial spot from R1 to fork of M. Posterior fork beyond the anterior. Halteres yellow.

Legs yellow, the hind femur darkened dorsally. Mid tibia with 5 dorsal, 2 external 2+1 ventral and 2 internal setae. Hind tibia with 5 dorsal and 6 external setae.

Abdomen blackish.

Genitalia (fig. 19): Basistyles with fused lobes, two lunate structures above. Dististyle divided into two lobes; external portion finger-shaped; the internal one with a stout seta; second lobe with long, slender setae at apex.

Female.—Similar to the male, Cerci vellowish, elongate.

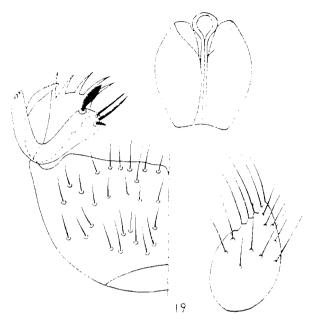


Fig. 19.—Mycetophila (Abmyceta) vaicensis sp. a. Basistyle and dististyle; mesosome and uinth tergites.

Holotype male; allotype female; paratypes, four males and three females. Brazil: State of Santa Catarina, Nova Teutonia, ix.x. i938 (*Fritz Planmann*). Three paratypes retained and registered under Nos. 9.505 to 9.507.

#### Mycetophila (Abmyceta) uboyasi sp. n.

Male.—Head: Mouth parts and palpus yellowish. Antenna with scape, torus and first three or four segments yellowish, the rest darkened. Occiput brown.

Thorax: Mesonotum yellowish with three marks; the mesial one cuneiform, blackish, the laterals forming two longitudinal dark brown bands; colour between these marks brown, darker on the sides, edges of disc broadly whitish-yellow, prescutellar region with two blackish spots; covering of yellow hairs and dark setae. Scutcilum blackish, middle of base and sides yellowish. Pleura yellowish; katepisternite yellow; hypopleurite yellow, posteriorly brown and with hairs.

Wing with a mesial dilute brown spot from RI to stem of anterior fork. Posterior fork quite beyond the anterior one. Halteres yellow.

Legs yellow, mid and hind femora slightly darkened dorsally and narrowly dark at apex. Mid tibia with 5 dorsal, 2 external, 2 short ventral and 2 long and 1 short internal setae. Hind tibia with 5 dorsal and 8 external setae.

Abdomen blackish, narrowly yellow on apical portion of segments.

Genitalia (fig. 20): Basistyles with fused lobes and bearing three stont, strong setae on side. Dististyle with many complex structures as in the figure. Mesosome as in figure. Ninth tergites divided in two yellowish lobes, the basal one strong, the apical one finger-shaped.

Female.—Similar to the male, wing markings more distinct. Cerci reddish, small rounded.

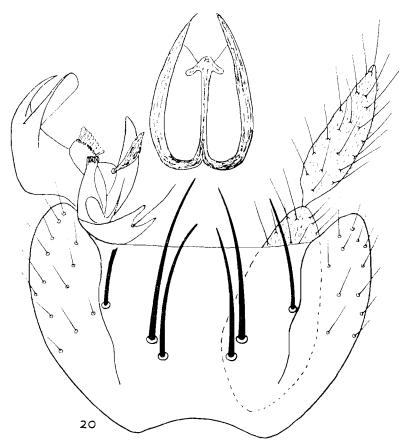


Fig. 20.—Mycetophila (Abmyceta) uboyasi sp. n. Basistyle and dististyle; mesosome and ninth tergites.

Holotype male; allotype female; paratypes, three males, Brazil: State of S. Catarina, Nova Teutonia, vii.1938 (*Fritz Plaumann*). One paratype retained and registered under No. 9.500.

#### Mycetophila (Abmyceta) xamasensis sp. n.

Male.—Head: Mouth parts and palpus yellow. Antenna with brown scape, whitish torus and first segment, the other segments darkened. Occiput brown in the middle, yellow on the sides.

Thorax: Mesonotum yellowish-white, with three large brown marks, the mesial cuneiform, lighter in the middle, the laterals elongate, with a slender transverse line in front projecting towards the sides; prescutellar region with a single brown, quadrate spot nearly touching the lateral marks; with brown hairs and dark setae. Scutellum yellowish with a broad mesial blackish line. Pleura light brown; hypopleurite yellowish but hind portion brown and setose.

Wing unicolorous. Posterior fork distinctly distal to the anterior. Halteres yellowish, base of knob brown.

Legs yellow. Mid tibia with 5 dorsal, 3 external, 2 ventral and 2 short internal setae. Hind tibia with 6 dorsal and 6 external setae.

Abdomen blackish; first two segments mostly yellow and leaving apical blackish bands. Genitalia (fig. 21): Basistyles with fused lobes, in the middle two united long setae; beyond these another pair inserted in a protuberance. Dististyle elongate, ending in a

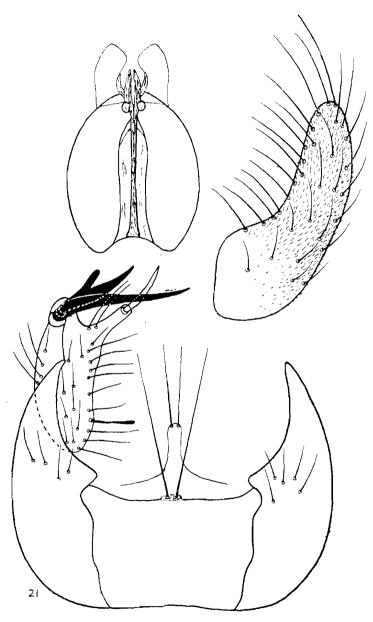


Fig. 21.—Mycetophila (Abmyceta) xamasensis sp. n. Basistyle and dististyle; mesosome and ninth tergites.

stout, short internal seta and on the external side two very strong, sclerotised setae, one of them forked, the other pointed. Mesosome and ninth tergites as in the figure.

Female.—Similar to the male. Cerci slender, elongate, small and yellow.

Holotype male; allotype female; paratypes, two males and three females, Brazil: State of Santa Catarina, Nova Teutonia, vii.viii.1938 (*Fritz Plaumann*). Two paratypes retained and registered under Nos. 9.496 and 9.497.

#### Mycetophila (Abmyceta) yurimauesi sp. n.

Male.—Head: Mouth parts and palpus yellow. Antenna with blackish scape, torus and first segment, the rest darkened. Occiput brown in the middle, the rest yellowish.

Thorax: Mesonotum yellowish with three dark brown marks, the mesial one cuneiform, lighter in the centre; the lateral ones L-shaped, the anterior portion well down the sides;

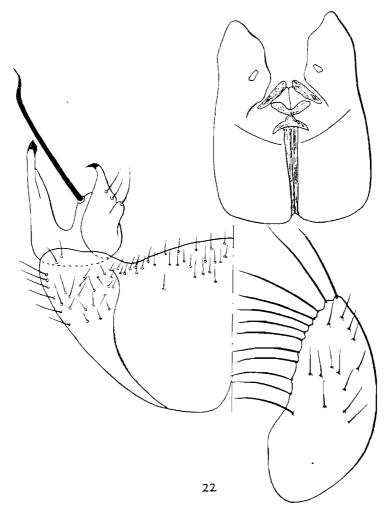


Fig. 22.—Mycetophila (Abmyceta) yurimauesi sp. n. Basistyle and dististyle; mesosome and ninth tergites.

a single prescutellar blackish and quadrate spot; covering of brown hairs and setae. Scutellum whitish with a central long dark line. Pleura brown, some areas lighter; hypopleurite brown.

Wing unicolorous. Posterior fork distal to the anterior. Halteres with yellow stem and brown knob.

 $\it Legs$  yellow. Mid tibia with 4/5 dorsal, 3 external, 2 ventral and 2 internal setae. Hind tibia with 5 dorsal and 7 external setae.

Abdomen dark brown dorsally, vellowish ventrally.

Genitalia (fig. 22): Basistyles with fused lobes, broader than long. Dististyles divided in two lobes which are short and as in the figure. Mesosome large, each flap with a peculiar structure as shown in figure. Ninth tergites as in the figure.

Female.—Similar to the male. Cerci small, rounded and yellowish.

Holotype male; allotype female; paratypes, four females and five males, Brazil: State of Santa Catarina, Nova Teutonia, vii.viii.ix.x.1938 (Fritz Plaumann).

#### V. Summary.

Two new subgenera for Mycetophila are created, namely Oromyceta and Abmyceta. A key for the separation of Epicypta and Mycetophila and the new subgenera is compiled. In the new subgenus Oromyceta six species are included, five of which are described as new. A key for their separation is also included. In the new subgenus Abmyceta twenty-four species are included and of these sixteen are described as new. A key for the species of this subgenus is given.

A new name is proposed for *M. confusa* Lane, 1948. New zoogeographical records are included and the most interesting one is the finding of *Mycetophila* (*Mycetophila*) conjuncta Freeman, 1951, in Brasil: S. Paulo, Campos do Jordão. The allotype of *Mycetophila* (*Abmyceta*) humboldti (Lane, 1948) is selected.