

## LOS INSECTOS DE LAS ISLAS JUAN FERNANDEZ

### 13. MYCETOPHILIDAE, SCIARIDAE, CECIDOMYIIDAE and SCATOPSIDAE (DIPTERA)

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En el presente trabajo se estudia el material de cuatro familias de Dípteros colectados por el P. Guillermo Kuschel en las islas de Juan Fernández. El autor describe cuatro especies de Mycetophilidae: *Macrocera fumidapex*, *Leia malleolus*, *Ezechia furcilla* y *Mycetophila subfumosa*; cuatro especies de Sciaridae: *Merianina kuscheli*, *Psilosciara nitens*, *Bradysia (Chaetosciara) fusca* y *Bradysia (Chaetosciara) media*; y pasa revista a las especies de Cecidomyiidae y Scatopsidae.

Finalmente el autor introduce nuevos nombres para un género y varias especies por estar pre-ocupados los que él había erigido en *Diptera of Patagonia and South Chile*, Part III.

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As with other papers in this series, the collection reported upon below was made by Father Guillermo Kuschel of Santiago, Chile, in 1951 and 1952. The types of new species and most of the paratypes have been returned to be placed in the collection of the Universidad de Chile, Santiago. A proportion of the paratypes have been retained and placed in the British Museum (Natural History). I should like to take this opportunity of thanking Father Kuschel for allowing me to study his collection of these four families.

Most of the collection is in excellent condition and it has been possible for me either to identify the species or to give diagnoses of new species. However, a number of the species are represented by females only, and with some of the more fragile ones the condition is too poor for accurate diagnosis: these I have identified as far as possible, but seldom to a lower category than the genus. The numbers of species for each family are as follows:

Mycetophilidae: 13 species with insufficient material for description of a further three.

Sciaridae: 4 species with females of a number of others of the genus *Bradysia*.

Cecidomyiidae: at least 5 species.

Scatopsidae: 2 species.

Both the species of Scatopsidae are cosmopolitan; unfortunately *Masatierra ferruginea* Enderlein was not represented in the collection. Of the Cecidomyiidae, one appears to be a species described by Enderlein, the others have not been described, as stated below.

The Sciaridae which have been described include two species of *Bradysia*, one of *Merianina* (a genus described by Frey for a Brazilian species), and a fourth slightly anomalous species which I am placing in *Psilosciara* Kieffer. In addition there are females of *Bradysia* spp. As the mainland fauna is virtually unknown in this family it is not possible to draw any conclusions from the collection.

The Mycetophilidae give a much clearer picture of the relationships of the fauna. Of the thirteen recognisable species no less than seven are also found in Chile. Three others are closely allied to Chilean species, a species of *Leia* has its closest relatives in Perú, Bolivia and Brazil, whilst the last species belongs to *Macrocera*, which is a genus with a world wide distribution and fairly uniform structure.

From this it is certain that the major portion of the fauna of this family was derived from that of the South Chilean and Patagonian zoogeographical subregion. It is quite likely that the new species described below will later be found on the mainland as well. Some species were found on both islands (there are none from Santa Clara), others only on one. It is not possible to say which species, if in fact any, are truly endemic to the islands until the mainland fauna has been collected much more intensively.

The genera represented in all four families are not the most primitive, although most of the Cecidomyiidae belong to the Lestremiinae. In the Mycetophilidae there are species from the subfamilies Ceroplatinae, Sciophilinae and Mycetophilinae and the fauna appears to be a very restricted sample of that of Chile. One peculiarity is the complete absence of species of *Mycomyia*, a genus well represented on the mainland.

Dr. Alan Stone and Mr. Jean Laffoon have kindly drawn my attention to some homonyms in the species described in Part III of *Diptera of Patagonia and South Chile* and I am taking this opportunity of proposing new names for them. Unfortunately it is also necessary to propose yet another name for *Australomyia* (*Centrocnemis*).

## FAMILY MYCETOPHILIDAE

### KEY TO GENERA

1. Base of M<sub>3</sub> present (m-cu of authors) ..... *Macrocera* Meigen  
 Base of M<sub>3</sub> absent, posterior fork not connected to M or R  
 by cross vein ..... 2

2. Microtrichia of wing membrane irregularly arranged. .... 3  
 Microtrichia arranged in short lines ..... 5  
 3. Wing membrane with macrotrichia ..... *Sciophila* Meigen  
 Wing membrane without macrotrichia. .... 4  
 4. Costa produced, pleurotergites bare ..... *Paraleia* Tonnoir  
 Costa not produced, pleurotergites hairy. .... *Leia* Meigen  
 5. Anepisternal and pteropleural bristles absent ..... 6  
 Anepisternal bristles present. .... 7  
 6. Base of posterior fork below or beyond that of anterior fork. .... *Exechia* Winnertz  
 Base of anterior fork well before that of anterior fork. .... *Allodia* Winnertz  
 7. Pteropleural bristles absent. .... *Trichonta* Winnertz  
 Pteropleural bristles present. .... *Mycetophila* Meigen

### *Macrocera funerea* Freeman

*Macrocera funerea* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 14.

MASATIERRA: Alto Pangal, 600 m., 6. II. 52, 1 ♂; Cerro Alto, 600 m., 1. II. 52, 2 ♂; Bahía Cumberland, 15. II. 52, 1 ♂; El Rabanal, 450 m., 27. II. 52, 1 ♀; El Camote, 450 m., 17. III. 52, 1 ♀; Picacho Central, 600 m., 4. II. 52, 1 ♀; Plazoleta, 200 m., 9. II. 52, 1 ♀.

### *Macrocera fumidapex* sp. n.

Readily distinguished from the previous species and all others so far described from S. America by the dark apex to the wing, absence of macrotrichia from the membrane, darkened posterior coxae and absence of acrostichal bristles.

*Male*.—Wing length 4 — 4.5 mm.

*Head*: face yellowish, mouthparts slightly darker, vertex blackish; antennae blackish, paler on scape, pedicel and third segment, which is one and a half times as long as the next; antennae one and a half times as long as body; eyes bearing fairly long and distinct hairs. *Thorax*: mesonotum brownish black, acrostichal bristles absent, dorso-centrals well developed and black, stripes not indicated; scutellum and parts of pleura yellow, anepisternum, katapisternum, pleurotergites, postnotum, brown. *Legs*: front coxae yellow, four posterior coxae yellow basally, darkened on apical half, all femora yellowish brown, tibiae and tarsi blacker; all tibial spurs blackish, those of posterior femora about one sixth length of basitarsus. *Wings*: rather more than apical third darkened, no other markings; macrotrichia absent from membrane; Sc with macrotrichia on more than apical half so that they commence well before

origin of Rs (in *funerea* they commence opposite origin of Rs), Sc reaching to level of union of R and M, tip of R<sub>1</sub> not inflated, costa produced for less than half width of cell R<sub>5</sub>, anal vein reaching wing margin. *Halleres* with dark knobs. *Abdomen* dark brown, basal segment paler, styles of hypopygium with the normal two teeth.

*Female*.—Wing length 4.5—5 mm.

Similar to male, sometimes darker, posterior four coxae may be completely blackish, tibial spurs may be yellow, basal flagellar segment slightly shorter.

Holotype male, Masafuera, Quebrada de las Casas, 1.800 m., 27. I. 52. Paratypes, MASAFUERA: Quebrada de las Vacas, 17. I. 52, 1 ♀; La Correspondencia, 1.300 m., 27. I. 52, 2 ♀; Inocentes Bajos, 1.000 m., 27. I. 52, 1 ♀.

A single female, structurally similar, from Masatierra, Yunque, 915 m., 10. II. 52, may belong to a distinct species. Size similar, wing markings similar but faint, general colour paler, posterior coxae without darkening. Before describing this as a distinct species it is necessary to examine more material from both islands to see the range of colour variation.

#### *Sciophila ocreata* Philippi

*Sciophila ocreata* Philippi, 1865, Verh. zool.—bot. Ges. Wien 15, p. 625; Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 56.

MASATIERRA: Plazoleta, 200 m., 12. II. 52, 1 ♂, 1 ♀; Bahía Cumberland, 4. I. 24. II. 52, 4 ♂, 1 ♀.

#### Genus *Paraleia* Tonnoir

*Paraleia* Tonnoir, 1929, Proc. Linn. Soc. New South Wales, 54, p. 611; Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 74.

*Selkirkius* Enderlein, 1940, in Skottsberg, Nat. Hist. Juan Fernández & Easter I., 3, p. 670, *syn. nov.*

Enderlein erected the genus *Selkirkius* for his species *nephrodops* from Masatierra. This species shows all the generic characters of *Paraleia* and is only separable with certainty from *P. nubilipennis* Walker by the structure of the male hypopygium. Both these species are closely allied to the type species of *Paraleia* (*P. fulvescens* Tonnoir) and have a very similar type of male hypopygium. *Selkirkius* thus falls as a synonym of *Paraleia*.

#### *Paraleia nubilipennis* Walker

*Leia nubilipennis* Walker, 1836, Trans. Linn. Soc. Lond., 17, p. 334.

*Paraleia nubilipennis* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 75.

MASAFUERA: Inocentes Altos, 1.300 m., 22. I. 52, 8 ♂, 2 ♀; La Correspondencia, 1.300 m., 22. I. 52, 4 ♂, 2 ♀.

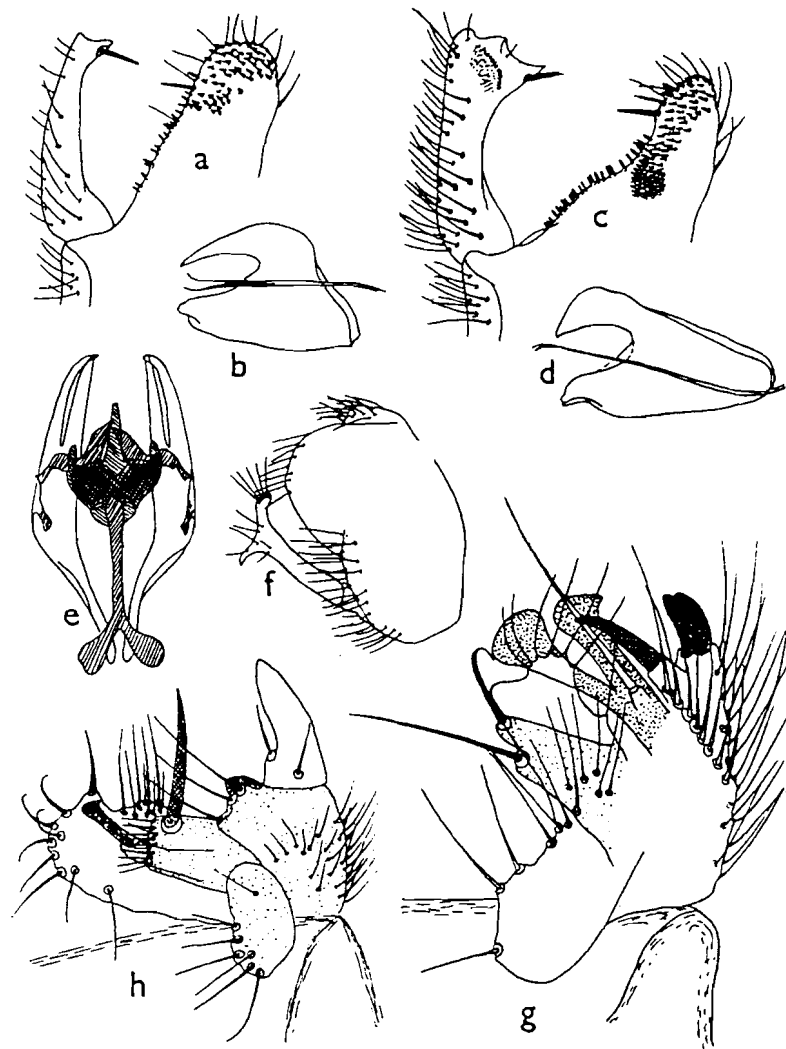


Lámina II

Mycetophilidae. *Paraleia nubilipennis* (a) style and apex of coxite of male from inner aspect; (b) aedeagus in lateral aspect. *Paraleia nephrodes* (c) style and apex of coxite of male from inner aspect; (d) aedeagus in lateral aspect. *Leia malleolus* (e) aedeagus; (f) coxite and style of male in lateral aspect to smaller scale. *Mycetophila angustifurca* (g) male style in dorsal aspect, intermediate and lower lobes stippled. *Mycetophila subfumosa* (h) male style in dorsal aspect, upper lobe stippled.

The emargination at the apex of the male styles (Lámina II, *a*) varies in depth both in the mainland specimens and in the present series; it tends to be more shallow in the latter. The number of spines on the coxite is also variable, but there is no dense patch below the level of the single long spine. The shape of the aedeagus (Lámina II, *b*) is constant and characteristic.

**Paraleia nephrodops** Enderlein

*Selkirkius nephrodops* Enderlein, 1940, in Skottsberg, Nat. Hist. Juan Fernández & Easter I., 3, p. 671.

MASATIERRA: Miradero de Selkirk, 550 m., 15.II.51, 3 ♂; Plazoleta del Yunque, 200 m., 15.II.3.III.51, 19 ♂, 2 ♀, and 2.I.52, 1 ♀; Bahía Cumberland, 25.II.51, 1 ♂; Quebrada de la Laura, 450 m., 1.III.51, 2 ♂; Alto Pangal, 600 m., 8.II.52, 1 ♂.

This species can only be distinguished from *P. nubilipennis* by the structure of the male hypopygium (Lámina II, *c, d*); styles much stouter, trifid at the apex, coxites with a dense patch of spines below the level of the long spine, aedeagus characteristic. In colour, wing pattern and all other structural characters the two species are identical.

**Leia malleolus** sp. n.

This species is closely allied to *L. falcata* Edwards, described from Brazil and also to the species from Peru and Bolivia considered by Edwards to be *L. halterata* Kertész. Specimens identified by Lane (1950, Rev. Brasil Biol. 10 (1), p. 129) from Brasil, Itatiaia, as *L. halterata*, and presented to the British Museum do not belong to the same species as the specimens examined by Edwards. The hypopygia of two differ widely and it is not clear which is the correct *halterata*. The present species is readily separable from these species by the more 'hammer-head' shape of the style and by the aedeagus which gives excellent characters in this group.

*Male*.—Wing length 3.5—4 mm.

*Head*: face and mouthparts brownish yellow, vertex more brown with a black area around each ocellus, antennae dark, scape and pedicel yellow. *Thorax* variable in colour; in one specimen mainly yellow with black bristles, mesonotum with three black spots posteriorly, the two outer ones more rounded and placed above the wing bases, the median one more elongate and reaching to the scutellum; in the other specimen there is much more suffusion with brown posteriorly so that the spots are not as clear cut and the thorax appears darker. Scutellum brownish basally, with four long bristles; postnotum with a central brown stripe; pleurotergites and katapisternites brownish ventrally. *Legs* yellow with dark hairs and bristles, tarsi darkened; posterior femur with a dark mark beneath basally and with a black apex; spurs yellow, middle tibia with

a single long ventral bristle. *Wings* with a fairly narrow subapical brown band, a small spot over r-m and another small one in the anal cell below the apical half of Cu; venation normal. *Halteres* with black knobs. *Abdomen* brownish black and yellow: segment 1 yellow, in one specimen with a brown spot near the apex; in the paler specimen segments 2—4 yellow on basal two thirds, dark on apical third, in the other specimen these segments with yellow side spots only; segment 5 mainly blackish with yellow side spots basally; 6—7 entirely blackish; remainder and hypopygium pale. Hypopygium (Lámina II, *e, f*): styles 'hammer-headed' with two processes pointing in opposite directions, one slightly hooked and spur-like, the other slightly capitate; median strut of aedeagus bifid at its inner extremity, each branch rounded, genital aperture on a cone shaped piece, main body with a pair of short claspers, shorter than the tube of the genital aperture and incurved with lateral extensions; 'parameres' bifid, each with a sclerotised process about half way along their length.

*Female* not known.

Holotype male, MASATIERRA, Bahía Cumberland, Grutas de los Patriotas, 19.II.51. Paratype, male, same locality, 17.II.51.

**Exechia furcilla** sp. n.

Posterior fork short, halteres black, general colour dark grey. Allied to *E. brevicornis* and *funerea* Freeman from Chile, distinguished from them by the dark halteres and the structure of the male hypopygium.

*Male*.—Wing length 2.5 mm.

*Head* dark grey, pruinose, eyes rather strongly convergent below antennae, mouthparts yellow, antennae yellowish on basal three segments. *Thorax* dark grey, pruinose, pleura partially yellow especially below the wings, scutellum with two long bristles, propleuron with two long bristles. *Legs* yellow, darker colour of tarsi due to black bristles, posterior femur

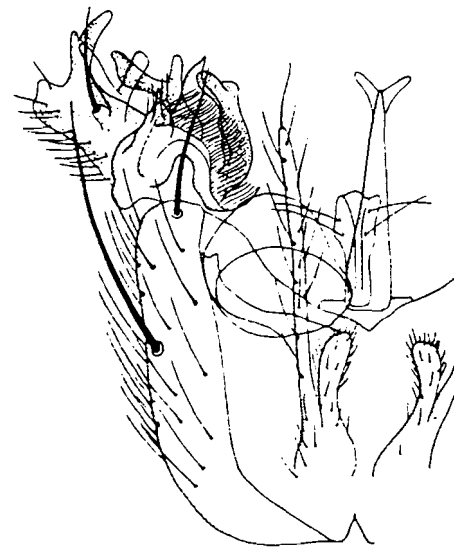


Fig. 1. Mycetophilidae. *Exechia furcilla*, male style and coxite, tergal aspect.

without a distinct dark mark basally, slightly darkened at extreme apex: posterior tibia with 5 — 6 fine inner bristles, 3 dorsal and 4 external. *Wings* clear, unclouded, venation with short posterior fork similar to that of *E. brevifurcata* Freeman. *Halteres* with black knobs and yellow stems. *Abdomen* greyish brown, very narrowly pale at the incisures, especially at lateral angles of tergites. *Hypopygium* (fig. 1): cerci divided, outer branch very long; coxites with two longer bristles; styles complex, with four bifid pieces as well as some single ones and a branch bearing a pecten. Pecten shorter than in species described from the mainland: aedeagus bifid.

*Female* not known.

Holotype male, MASAFUERA, Quebrada de las Casas, 30.I.52.

#### *Allodia* sp.

MASATIERRA: Miradero del Selkirk, 500 m., 23.II.51, 1 ♀; Yunque, 915 m., 10.II.52, 1 ♀. MASAFUERA: La Correspondencia, 1.300 m., 20.I.52, 1 ♀.

These three females are very similar both to each other and to *A. similis* Freeman from Chile. In the absence of males it is not possible accurately to assign them to a species.

#### *Trichonta* sp.

MASATIERRA: Plazoleta del Yunque, 200 m., 3.III.51, 1 ♀.

A single female belonging to the same species group as the Chilean species *T. spinigera* and *similis* Freeman. Further identification is not possible without a male, but it seems to belong to an undescribed species.

#### KEY TO SPECIES OF *MYCETOPHILA*

- |    |  |                            |
|----|--|----------------------------|
| 1. | Pteropleuron with a group of coarse hairs only. ....   | 2                          |
|    | Pteropleuron with 2-7 bristles and sometimes coarse hair as well. ....   | 3                          |
| 2. | Middle tibia with no ventral bristles. ....  | <i>insecta</i> Freeman     |
|    | Middle tibia with 2-3 ventral bristles. ....   | <i>cornuta</i> Freeman     |
| 3. | Wings with subapical dark band which includes entire tip of cell R <sub>1</sub> but leaves apex of cell R <sub>5</sub> clear. .... | <i>flavolunata</i> Freeman |
|    | Either the whole apex is clouded or else there is no distinct subapical band. ....   | 4                          |
| 4. | Middle tibia with a single ventral bristle. ....   | 5                          |
|    | Middle tibia with at least two ventral bristles. ....  | 6                          |
| 5. | Halteres yellow, posterior fork short. ....  | <i>subfumosa</i> sp. n.    |
|    | Halteres dark, posterior fork only slightly distal to anterior fork. ....  | <i>conifera</i> Freeman    |

6. *Halteres* yellow, posterior tibia with a row of close-set short bristles just inside dorsal row. .... *spinosa* Freeman
- Halteres* brown, these bristles absent. .... *angustifurca* Enderlein.

#### *Mycetophila cornuta* Freeman

*Mycetophila cornuta* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 112.

MASATIERRA: Yunque, 915 m., 10.II.52, 2 ♂.

In the original description the tergal arm of the style was shown carrying a pointed spine; in fact, this spine is flattened and blade-like, as has been shown by staining a specimen of the type series. In Father Kuschel's two specimens the dorsal arm is rather long, but little importance can be attached to this because of the variability shown by the hypopygium in this species group. These specimens also show a faint cloud on the wing joining the two forks: re-examination of the type series shows this to be present in some specimens.

#### *Mycetophila flavolunata* Freeman

*Mycetophila flavolunata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 122.

MASATIERRA: Miradero de Selkirk, 500 m., 31.II.51, 1 ♂.

MASAFUERA: Inocentes Bajos, 1.000 m., 27.I.52, 4 ♂; Varadero, 27.I.52, 1 ♀.

#### *Mycetophila conifera* Freeman

*Mycetophila conifera* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 125.

MASAFUERA: La Correspondencia, 1.300 m., 20.I.52, 6 ♂, 5 ♀; Quebrada de las Casas, 30.I.52, 1 ♀.

#### *Mycetophila* sp.?

MASATIERRA: Yunque, 10.II.52, 1 ♀.

This female belongs to the same species group as *M. conifera* and may belong to that species, but it is not possible to be certain without males from the same island.

#### *Mycetophila spinosa* Freeman

*Mycetophila spinosa* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 129.

MASAFUERA: La Correspondencia, 1.300 m., 20.I.52, 3 ♀; Inocentes Altos, 1.300 m., 22.I.52, 3 ♂, 3 ♀; Inocentes Bajos, 1.000 m., 27.I.52, 4 ♂, 7 ♀.

#### *Mycetophila ? insecta* Freeman

*Mycetophila insecta* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 109.

MASATIERRA: Yunque, 915 m., 10.II.52, 1 ♀.

This female possible belongs to this species, but males are necessary for confirmation.

**Mycetophila angustifurca** Enderlein

*Mycetophila angustifurca* Enderlein, 1940, in Skottsberg, Nat. Hist. Juan Fernández & Easter I., 3, p. 672. MASATIERRA: Miradero del Selkirk, 500 m., 23.II.51, 4 ♂, and 31.XII.51, 1 ♀; Plazoleta del Yunque, 200 m., 3.III.51, 1 ♀; Cerro Alto, 600 m., 1.II.52, 3 ♂, 2 ♀; Picacho Central, 600 m., 4.II.52, 1 ♂; El Camote, 600 m., 5.II.51, 1 ♂; Yunque, 915 m., 10.II.52, 3 ♂, 1 ♀.

A new figure is given (Lámina II, g) of the male hypopygium from the dorsal aspect so that it can be compared more readily with figures of other species from Chile. The important features are the deeply bifid intermediate lobe, each half being knobbed, and the three strong blunt spines, one at an angle, placed on the lower lobe.

**Mycetophila subfumosa** sp. n.

Distinguished from the other species by the presence of only four inner bristles on the posterior tibia, by the shorter posterior fork and the structure of the male hypopygium; halteres pale.

*Male*.—Wing length 2,5 mm.

*Head* dark brown, mouthparts slightly paler, antennae paler on three basal segments. *Thorax* dark brown, unstriped, two propleural, three strong pteropleural and four scutellar bristles. *Legs* brownish yellow, anterior coxae yellow, posterior four brown; middle tibia with two external, one ventral, four dorsal and three external bristles; posterior tibia with three external, four dorsal and only 4—5 short inner ones placed near the apex. *Wings* brown, paler at the tip and beyond the cross vein, basal to cross vein rather darker; posterior fork short, well beyond anterior fork. *Halteres* yellow. *Abdomen* dark brown. Hypopygium (Lámina II, h) with characteristic style; upper lobe fairly large and with a hood-like projection, intermediate lobe transverse, with a single large clubbed spine, lower lobe bulky and with a large pointed spine and more bristles than is usual.

*Female*.—Not known.

Holotype male, MASATIERRA, Yunque, 915 m., 10.II.52.

FAMILY SCIARIDAE

*Wing Venation*

Edwards (1925, Trans. ent. Soc. Lond. 1924, 505-670) treats this group as having been derived from the tribe Leiini of the subfamily Sciophilinae of the family Mycetophilidae, or at least as having a common ancestry with it. In the Leiini  $R_1$  is short and the vertical vein is considered

to be the base of  $R_s$ : the horizontal vein connecting  $R_s$  to  $M$  becomes the cross vein  $r-m$ . This nomenclature can be applied very easily to the Sciaridae, and, whilst not necessarily agreeing with Edwards over the origins of the family, I am at a loss to understand why it is not now generally accepted.

Lengersdorf (1930, in Lindner, Flieg. Pal. Reg. 2 (1), 7) states that the forking of  $R_s$  from  $M$  is more basal and that the vertical vein is a basal branch of  $R_s$ ; this means that the portion basal to the junction of  $M$ , which he terms «x», is a compound vein formed of  $R_s$  and  $M$ .

Hendel (1937, in Kükenthal, Handbuch der Zoologie 4 (2), p. 1897) followed by Frey (1942, Notulae Ent. 22, pp. 5-44 and 1948, *ibid.* 27, pp. 33-92) adopts a still more complex system, in which the vein usually treated as  $R_{4+5}$  is considered to be  $M_1$ , whilst the short vertical vein is considered to be all that is left of  $R_s$ .

I am proposing to revert to the system employed by Edwards, in which the venation is compared directly with that of the Mycetophilidae. The short vertical vein is referred to as the base of  $R_s$ , the horizontal vein called «y» by Frey becomes  $r-m$ , and «x» is treated as the base of  $M$ . In support of this, the species (possibly aberrant specimens) placed in *Cratyna* possess what appears to be a true branch to  $R_s$  as well as the short vertical vein. Thus, the latter automatically becomes the base of  $R_s$ . I am accepting Tillyard's modification which makes the posterior fork compound, the anterior branch being treated as the last branch of  $M$ , and the posterior as  $Cu_1$ ;  $Cu_2$  is considered to be represented by the fold immediately behind  $Cu_1$ .

**Merianina kuscheli** sp. n.

The genus *Merianina* Frey was erected for a Brazilian species with macrotrichia on  $M_1$  and the base of the posterior fork shorter than the base of  $M$ , *Phytosciara* was erected for those species in which the proportions of these veins were reversed. Whether these characters are really of generic importance is not certain, but for the present this species must be considered as the second species of this genus. It can easily be distinguished from *M. americana* Frey by the very dark brown almost blackish colour, absence of acrostichal bristles and only two longer scutellar bristles.

*Female*.—Wing length 2,5—3 mm.

*Head* blackish, pruinose; mouthparts dark brown, palpi with three subequal segments; antennae dark, three basal segments paler, flagellar segments slightly longer than wide; eyes with well developed long hairs, eye bridges meeting, two facets wide, ocelli in a flattened triangle. *Thorax* very dark brown, pruinose, shoulders slightly paler; acrostichal bristles absent, dorso-centrals black and well developed, long and irregularly biserial; lateral scutal bristles well developed, black, but not as long as

in species of *Bradysia*; scutellum with a pair of longer bristles and a number of shorter ones. *Legs* yellowish brown, four posterior coxae darker; coxae fairly short, tibiae hardly longer than femora, no well developed tibial bristles, spurs 1, 2, 2, posterior basitarsus half length of tibia, pulvilli well developed. *Wings* greyish, membrane with no macrotrichia; macrotrichia sparsely present on  $M_1$ , about 10 in number, absent from other long veins, present on  $r-m$ ; venation very similar to *Psilosciara nitens* sp. n., costa produced for half width of cell  $R_5$ ,  $R_1$  ending opposite  $Cu_1$  and nearly reaching level of fork of  $M$ , as long as  $r-m$ ,  $R_{4+5}$  long, stem of posterior fork shorter than base of  $M$ . *Halteres* dark brown with paler stems. *Abdomen* dark brown.

*Male* not known.

Holotype female, MASATIERRA, Salsipuedes, 300 m., 5.III.51. Paratypes, MASATIERRA: Plazoleta del Yunque, 200 m., 22.II.51, 1 ♀; MASAFUERA: Quebrada de las Casas, 13.I.52, 1 ♀.

#### *Psilosciara nitens* sp. n.

This species does not fit very well into any of the genera given by Frey. As it has reduced eye hairs I am placing it in *Psilosciara* for the time being. It is a distinct, shining black species, with nearly quadrate antennal segments, eyebridges not quite meeting, short thoracic bristles, transverse abdominal segments, and reduced ninth tergite in the male.

*Male*.—Wing length 2 mm.

*Head* shining black, antennae and mouthparts black; antennal segments slightly longer than wide, palpi three segmented, segments subequal; eyes with sparse short hairs which are difficult to see, eye bridges developed, three facets wide but not meeting, separated by a space about two facets wide; ocelli in a flattened triangle. *Thorax* wholly shining black, acrostichal and dorso-central bristles present but very short, each in two rows, lateral scutal bristles also short. *Legs* brownish black, four posterior coxae darker; tibial spurs 1, 2, 2, tibiae without distinct long bristles; coxae short, posterior tibiae hardly longer than femora, posterior basitarsus half as long as tibia, pulvilli well developed. *Wings* hyaline; costa produced (Lámina III, b),  $R_5$  longer than in *Bradysia* spp.,  $R_1$  equal to  $r-m$ , stem of posterior fork slightly longer than half of base of  $M$ ; no macrotrichia on membrane or on any branches of  $M$  or  $Cu$ ,  $r-m$  with 2-4 on its apical half. *Halteres* black. *Abdomen* black with black hairs, rather short and squat, hypopygium large; segments 1-8 transverse, length only about one third of width, sternite 7 especially noticeably short (in other Sciaridae it is usually quadrate); ninth tergite largely membranous (Lámina III, a) with a central anchorshaped sclerotised portion, styles short with four spines at apex.

*Female*.—Wing length 2-3 mm.

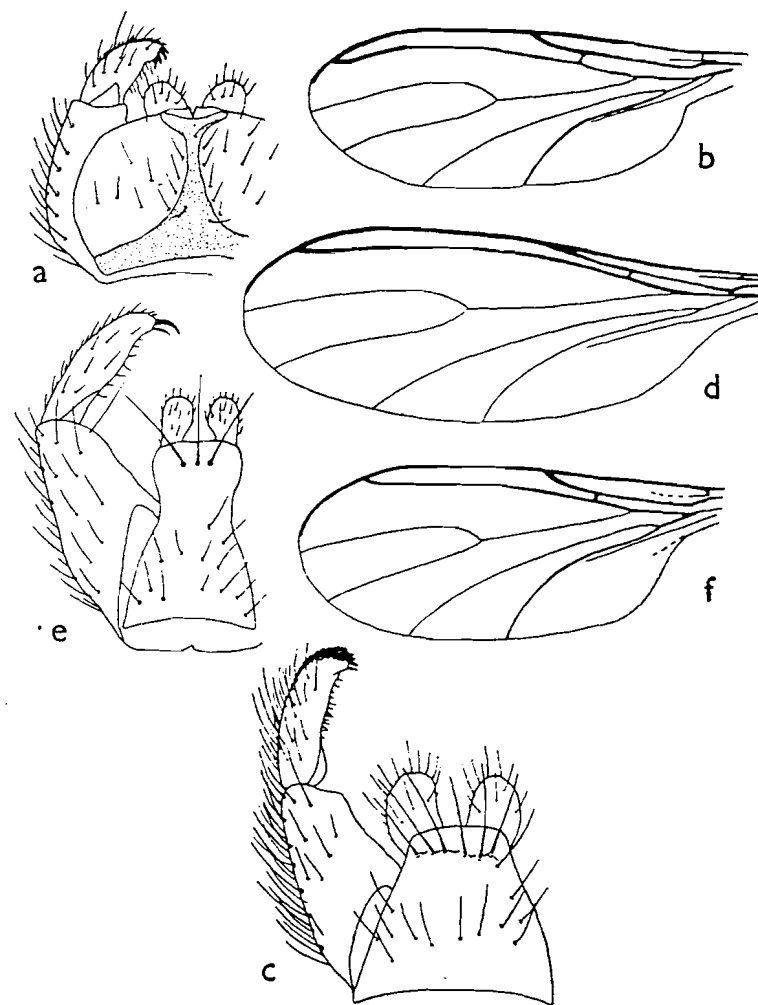


Lámina III

Sciaridae. *Psilosciara nitens* (a) male hypopygium, tergal aspect; (b) wing. *Bradysia fusca*; (c) male hypopygium, tergal aspect; (d) wing. *Bradysia media*; (e) male hypopygium, tergal aspect; (f) wing.

Generally similar to male, abdomen not particularly squat, tergites at least half as long as wide.

Holotype female, MASATIERRA, Bahía Cumberland, 19.II.51. Paratypes, MASATIERRA: Bahía Cumberland, 17.II.51, 1 ♀, and 1.I.52, 2 ♂; Piedra Agujereada, 300 m., 27.II.51, 4 ♀; El Rabanal, 400 m., 27.II.51, 1 ♀; Plazoleta del Yunque, 200 m., 9.I.52, 1 ♀.

**Bradysia (Chaetosciara) fusca** sp. n.

Thorax dark brown with pleura largely yellowish brown, legs long, posterior tibiae with numerous distinct longer bristles, antennal segments about three times as long as wide, male ninth tergite simple, styles with two spines.

*Male*.—Wing length 3 mm.

*Head* blackish brown; antennae dark, paler on segments 1-2, mouth-parts dark, palpi three segmented; eyes hairy, bridges three facets wide and meeting, ocelli in a flattened triangle. *Thorax*: mesonotum largely dark brown, shoulders, lateral scutal margins and most of pleura yellowish brown, katepisterum and anepisternum partially dark brown; scutellum brown or pale, postnotum yellowish on basal half; acrostichal bristles uniserial, pale, very short and difficult to see, dorso-centrals long, black uniserial, scutellum with two longer bristles. *Legs*: coxae yellow, legs rather darker, fairly long, all tibiae longer than femora, posterior basitarsus slightly more than half length of tibia; tibial spurs 1, 2, 2; posterior tibia with distinct numerous longer bristles which are absent from other legs; pulvilli well developed. *Wings*: venation as in Lámina III, *d*; macrotrichia absent from M and Cu and from r-m; R<sub>1</sub> rather longer than r-m, ending well before level of Cu; costa strongly produced, R<sub>5</sub> shorter than in the two previous species, anal area rather reduced. *Halteres* black, base of stem paler. *Abdomen* dark brown with black hairs; seventh tergite quadrate, eighth transverse, ninth simple and conical with about six long bristles at apex, coxites and styles (Lámina III, *c*) fairly long, styles with two short spines at apex and a short hair brush.

*Female*.—Wing length 2.5—3 mm. Resembles male.

Holotype male, MASAFUERA, Inocentes Bajos, 1,000 m., 27.I.52. Paratypes, MASAFUERA: as holotype, 5 ♂, 1 ♀; MASATIERRA: Miradero del Selkirk, 500 m., 15; 23.II.51, 1 ♂, 1 ♀; El Rabanal, 400 m., 27.II.51, 2 ♂; Alto Francés, 450 m., 7.III.51, 1 ♂.

**Bradysia (Chaetosciara) media** sp. n.

A smaller species than *B. fusca* sp. n., legs paler, body blacker, posterior tibiae without distinct longer bristles, anal area of wing better developed, ninth tergite of male with a waist.

*Male*.—Wing length 1.8 mm.

*Head* blackish, palpi paler, three segmented; antennae dark, flagellar segments about twice as long as wide, thickly clothed with short whitish hairs; eyes hairy, bridges complete, 2-3 facets wide, ocelli in a wide triangle. *Thorax* completely dark, hardly shining, acrostichal and dorso-central bristles conspicuous, the latter with some much longer black bristles mixed in, scutellum with two longer and two shorter bristles. *Legs* long and yellowish, tibial spurs 1, 2, 2; posterior tibiae one and a half times as long as femora, without distinct longer bristles, basitarsus about half as long as tibia. *Wing* without macrotrichia on membrane or fork veins, r-m with 2-3; R<sub>1</sub> longer than r-m (Lámina III, *f*), stem of posterior fork short, costa strongly produced, R<sub>5</sub> shorter as in *B. fusca*. *Halteres* dark. *Abdomen* dark with dark hair. Hypopygium (Lámina III, *e*): ninth tergite with distinct waist, styles fairly narrow, with two long spines at apex, not very hairy and without brush.

*Female* resembles male.

Holotype male, MASATIERRA, Alto Francés, 450 m., 7.III.51. Paratypes, MASATIERRA: Grutas de los Patriotas, 17-19.II.51, 4 ♂, 4 ♀; Bahía Cumberland, 15.II.51, 1 ♂, 6 ♀, 2-4.III.51, 2 ♀, and 4.I.52, 1 ♂; Villagrán, 250 m., 21.II.51, 1 ♂, 7 ♀; Miradero del Selkirk, 15-25.II.51, 4 ♂, 4 ♀; El Rabanal, 400 m., 27.II.51, 4 ♂, 13 ♀; Picacho Central, 600 m., 4.II.52, 1 ♀; Quebrada de la Laura, 450 m., 1.III.51, 8 ♂, 3 ♀; Alto Francés, 450 m., 7.III.51, 3 ♀; Cerro Alto, 600 m., 1.II.52, 1 ♂, 1 ♀; Plazoleta del Yunque, 200 m., 9.II.52, 1 ♀. MASAFUERA: Las Chozas, 700 m., 14.I.52, 2 ♀; Quebrada de las Casas, 19.I.52, 1 ♀; Inocentes Altos, 1,300 m., 22.I.52, 1 ♂, 3 ♀; La Correspondencia, 1,360 m., 20.I.52, 1 ♂.

**Bradysia** spp.

Besides these four species there are females of a number of other species of *Bradysia*. I am leaving these undescribed until such time as males can be found so that full descriptions can be made.

FAMILY CECIDOMYIIDAE

There are specimens of five or six species, mostly females and the condition of many is not good. With the exception of *Psadaria pallida* I am not placing them into their species.

Subfamily Lestremiinae, tribe Campylomyzini.

**Psadaria pallida** Enderlein

*Psadaria pallida* Enderlein, 1940, in Skottsberg, Nat. Hist. Juan Fernández & Easter I., 3, p. 669.



MASATIERRA: Bahía Cumberland, 24. II. 51, 1 ♀, and 1. I. 52, 1 ♀ ; Alto Pangal, 8. II. 52, 1 ♀ ; Picacho Central, 4. II. 52, 1 ♂ .

MASAFUERA: Quebrada de las Casas, 13-30. I. 52, 2 ♀ .

Structurally these specimens agree exactly with Enderlein's description, their colour, however is darker. I am assuming that the type series were faded.

The female cannot be distinguished from the specimens described by Edwards from England as *Corinthomyia cincinna* Felt. The antennae, head, eyes, palpi, wings, legs, spermathecae and cerci are identical. It is not possible to say whether or not the two genera are synonymous without examination of the males, especially as Enderlein states that the male antennae show no peculiarities. It seems likely that they are synonymous, and, anyway, it is preferable so to consider them, because genera based on the characters of only one sex are undesirable.

#### *Peromyia* sp.

MASATIERRA: Quebrada de la Laura, 1. III. 51, 1 ♀ ; El Camote, 27. III. 51, 1 ♀ .

MASAFUERA: Quebrada de las Casas, 19. I. 52, 1 ♂ ; Inocentes Bajos, 27. I. 52, 3 specimens, sex uncertain.

? genus near *Bryomyia* sp.

MASAFUERA: Las Chozas, 14. I. 52, 1 ♀ .

It is not possible to give a nearer identification because both antennae are missing.

#### Subfamily Cecidomyiinae

Two females and one male belonging to at least two genera, condition of specimens too poor for accurate placing.

#### FAMILY SCATOPSIDAE

#### *Scatopse notata* Linnaeus

MASATIERRA: La Laura, 1. III. 51, 1 ♀ ; Bahía Cumberland, 9. II. 52, 1 ♂ .

#### *Scatopse fuscipes* Meigen

MASATIERRA: Bahía Cumberland, 19-24. II. 51, 3 ♀ .

MASAFUERA: La Correspondencia, 20. I. 52, 1 ♀ ; Quebrada de las Casas, 30. I. 52, 2 ♀ .

#### NEW NAMES FOR HOMONYMS IN DIPTERA OF PATAGONIA AND SOUTH CHILE, PART III

*Australosymmerus* nom. nov. pro *Australomyia* Freeman, 1951, Dipt. Pat. S. Chile Pt. III, p. 7, nec *Australomyia* Schmid, 1949, Acta zool. lilloana 8, p. 600.

*Leia submaculipennis* nom. nov. pro *Leia maculipennis* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 77, nec *Mycetophila maculipennis* Say, 1824 in Keating, Narr. Exp. Source St. Peter's R., 2, p. 365 (transferred to *Leia* by Landrock, 1927 in Lindner, Flieg. Pal. Reg., 2 (1) 8, p. 87 as a synonym of *L. winthemi* Lehman).

*Tetragoneura simillima* nom. nov. pro *Tetragoneura similis* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 86, nec *Tetragoneura similis* Garrett, 1925, Sixty one new Diptera, p. 8.

*Mycetophila bifida* nom. nov. pro *Mycetophila fasciata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 121, nec *Mycetophila fasciata* Meigen, 1804, Klass. Besch. Eur. Zweifl. Ins., 1, p. 91 (now placed in *Rhymosia*).

*Mycetophila subcapitata* nom. nov. pro *Mycetophila subfasciata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 120, nec *Mycetophila subfasciata* Meigen, 1818, Syst. Besch. Eur. Zweifl. Ins., 1, p. 270 (now placed in *Leia*).

*Mycetophila subrecta* nom. nov. pro *Mycetophila recta* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 124, nec *Mycothera recta* Johannsen, 1912, Bull. Agric. Exp. Sta. Maine, 200, p. 82 (*Mycothera* was synonymised with *Mycetophila* by Edwards, 1913, Trans. ent. Soc. Lond., p. 372).

*Mycetophila parapicalis* nom. nov. pro *Mycetophila apicalis* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 124, nec *Mycetophila apicalis* Meigen, 1838, Syst. Besch. Eur. Zweifl. Ins., 7, p. 47 (treated by Landrock, 1927, as a synonym of *Rhymosia fenestralis* Meigen).

*Mycetophila paranotata* nom. nov. pro *Mycetophila notata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 126, nec *Mycetophila notata* Stannius, 1831, Obs. spec. nonnullis Gen. Mycetoph., 17, p. 12 (now placed in *Zygomyia*).

**Mycetophila triordinata** nom. nov. pro *Mycetophila triseriata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 128, nec *Fungivora triseriata* Bukovski, 1949, Ent. Obozr. **30**, p. 405 (*Mycetophila* and *Fungivora* refer to the same genus).

**Mycetophila subvittata** nom. nov. pro *Mycetophila' trivittata* Freeman, 1951, Dipt. Pat. S. Chile, Pt. III, p. 131, nec *Mycetophila trivittata* Staeger, 1840, Naturhist. Tidssk., **3**, p. 261 (now placed in *Exechia*).