

CATALOG  
OF THE  
DIPTERA  
OF THE  
AUSTRALASIAN  
AND  
OCEANIAN REGIONS

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# Superfamily SCIAROIDEA

## 6. Family DITOMYIIDAE

By Loïc Matile

**D**itomyiids form a small family of 8 genera and about 90 species. Distributed worldwide (except in the Afrotropical Region), most species are found in the Australasian and Neotropical regions. The earliest fossil dates from the European Eocene/Oligocene (in Baltic amber). It belongs to *Symmerus* Walker, a genus still extant in the Holarctic. *Centrocnemis imperfecta* Riek, described from the Tertiary Redbank Plains series of Queensland, probably belongs to *Australosymmerus*, still present in Australia (see Appendix I). Biogeographical data imply a much greater antiquity for these genera.

Two genera, with 34 species, are known from the Australasian Region. All of these species are more or less closely related to groups with a Chilean center of endemism. Colless (1970b) noted that the Australian *Australosymmerus* seemed more closely allied to the Patagonian species than to the New Zealand species. That conclusion was also

reached by Munroe (1974), who noted that both Australian and New Zealand species of this genus have a sister-group relationship with Chilean species instead of with one another. These Transantarctic tracks imply that the Southern Hemisphere ditomyiids must have a common ancestor dating as far back as the Lower Cretaceous.

Larvae of species belonging to 2 Holarctic genera (*Symmerus* and *Ditomyia* Winnertz) and 1 Chilean Australasian genus (*Australosymmerus*) are known. They live either in ligneous Polyporaceae (bracket fungi) or in dead but unrotten wood, where they bore galleries. Like other Mycetophiloidea, the adults are mainly sylvan. They can be swept in low vegetation or collected in Malaise traps.

*Refs.*: Tonnoir & Edwards (1927, rev. NZ spp.), Colless (1970b, rev. Australian spp.), Munroe (1974, rev. phylog., zoogeogr. *Australosymmerus*, *Symmerus*).

### Genus AUSTRALOSYMMERUS Freeman

*CENTROCNEMIS* Philippi, 1865: 619. Type species: *Centrocnemis stigmatica* Philippi, 1865, mon. [Preocc. Signoret, 1852.]

*AUSTRALOMYIA* Freeman, 1951b: 7 (n. n. for *Centrocnemis*). [Preocc. Schmid, 1950.]

*AUSTRALOSYMMERUS* Freeman, 1954b: 39 (n. n. for *Australomyia*).

### Subgenus AUSTRALOSYMMERUS Freeman

*CENTROCNEMIS* Philippi, 1865: 619 (as gen.). Type species: *Centrocnemis stigmatica* Philippi, 1865, mon. [Preocc. Signoret, 1852.]

*AUSTRALOMYIA* Freeman, 1951b: 7 (n. n. for *Centrocnemis*). [Preocc. Schmid, 1950.]

*AUSTRALOSYMMERUS* Freeman, 1954b: 39 (n. n. for *Australomyia*).

*basalis* Tonnoir in Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

*nitidus* Tonnoir in Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

*tillyardi* Tonnoir in Tonnoir & Edwards, 1927: 758 (*Centrocnemis*). NZ (NZ).

### Subgenus CRIONISCA Colless

*CRIONISCA* Colless, 1970b: 95 (as gen.). Type species: *Crionisca rieki* Colless, 1970, orig. des.

*aculeatus* Edwards, 1921a: 434 (*Centrocnemis*). Australia (Tas).

**rieki** Colless, 1970b: 95 (*Crionisca*). Australia (Vic); Australia (ACT, Tas).

#### Subgenus VENTRILOBUS Munroe

**VENTRILOBUS** Munroe, 1974: 45. Type species: *Centrocnemis fuscinervis* Edwards, 1921, orig. des. **anthostylus** Colless, 1970b: 90. Australia (Tas).

**cornutus** Colless, 1970b: 95. Australia (NSW); Australia (Vic).

**fuscinervis** Edwards, 1921a: 434 (*Centrocnemis*). Australia (Tas); Australia (NSW).

**nebulosus** Colless, 1970b: 92. Australia (Tas).

**propinquus** Colless, 1970b: 90. Australia (Tas).

#### Unplaced species of *Australosymmerus* Freeman

**fumipennis** Tonnoir in Tonnoir & Edwards, 1927: 758 (*Centrocnemis*). NZ (NZ). **N. comb.**

**naevius** Colless, 1970b: 94. Australia (NSW); Australia (Vic).

**tonnoiri** Colless, 1970b: 92. Australia (Tas).

**trivittatus** Edwards in Tonnoir & Edwards, 1927: 759 (*Centrocnemis*). NZ (NZ).

#### Genus NERVIJUNCTA Marshall

**CYRTONEURA** Marshall, 1896b: 262. Type species: *Cyrtoneura hudsoni* Marshall, 1896, mon. [Preocc. Agassiz, 1847.]

**NERVIJUNCTA** Marshall, 1896b: 265. Type species: *Nervijuncta nigrescens* Marshall, 1896, mon.

**HUTTONIA** Marshall, 1896b: 267. Type species: *Platyura tridens* Hutton, 1881, mon. [Preocc. Pickard Cambridge, 1880.]

**ARCTONEURA** Hutton, 1904a: 133 (n. n. for *Cyrtoneura*).

**CASA** Hutton, 1904a: 133 (n. n. for *Huttonia*).

**CYCLONEURA**, error for *Cyrtoneura*.

**bicolor** Edwards in Tonnoir & Edwards, 1927: 770. NZ (NZ).

**flavoscutellata** Tonnoir in Tonnoir & Edwards, 1927: 765. NZ (NZ).

**harrisi** Edwards in Tonnoir & Edwards, 1927: 766. NZ (NZ).

**hexachaeta** Edwards in Tonnoir & Edwards, 1927: 766. NZ (NZ).

**hudsoni** Marshall, 1896b: 263 (*Cyrtoneura*). NZ (NZ).

**longicauda** Edwards in Tonnoir & Edwards, 1927: 765. NZ (NZ).

**marshalli** Edwards in Tonnoir & Edwards, 1927: 769. NZ (NZ).

**nigrescens** Marshall, 1896b: 266. NZ (NZ).

**nigricornis** Tonnoir in Tonnoir & Edwards, 1927: 767. NZ (NZ).

**nigricoxa** Edwards in Tonnoir & Edwards, 1927: 770. NZ (NZ).

**ostensackeni** Tonnoir in Tonnoir & Edwards, 1927: 767. NZ (NZ).

**parvicauda** Edwards in Tonnoir & Edwards, 1927: 763. NZ (NZ).

**pilicornis** Edwards in Tonnoir & Edwards, 1927: 764. NZ (NZ).

**pulchella** Edwards in Tonnoir & Edwards, 1927: 768. NZ (NZ).

**punctata** Tonnoir in Tonnoir & Edwards, 1927: 768. NZ (NZ).

ssp. **punctata** s. str. NZ (NZ).

ssp. **robusta** Tonnoir in Tonnoir & Edwards, 1927: 769 (*punctata* var.). NZ (NZ).

**ruficeps** Edwards in Tonnoir & Edwards, 1927: 762. NZ (NZ).

**tridens** Hutton, 1881: 12 (*Platyura*). NZ (NZ).

**wakefieldi** Edwards, 1921a: 435 (*Arctoneura*). NZ (NZ).

ssp. **abbreviata** Edwards in Tonnoir & Edwards, 1927: 762 (*wakefieldi* var.). NZ (NZ). **N. stat.**

ssp. **wakefieldi** s.str. NZ (NZ).

## 7. Family DIADOCIDIIDAE

By Loïc Matile

**D**iadocidiids form a small monogeneric family comprising only 1 genus and about 10 species. The family's distribution is mainly Holarctic, with 2 fossil species from the Tertiary (1 Nearctic, 1 Palearctic). One species, nevertheless, occurs in the Neotropical Region, and the presence of an unidentified species in Tasmania has been known since recorded in Tonnoir (1929*b*). A second

unidentified Australian species was cited by Colless (1963*a*).

Larvae of *Diadocidia* spin dry, silken tubes under bark or dead logs. The adults mostly inhabit forests. Nothing can be said of the affinities of the Australasian Diadocidiidae until the known specimens are properly studied.

### Genus DIADOCIDIA Ruthe

**DIADOCIDIA** Ruthe, 1831: 1210. Type species: *Diadocidia flavicans* Ruthe, 1831 [= *Mycetobia ferruginosa* Meigen, 1830], orig. des.

**MACRONEVRA** Macquart, 1834*a*: 146. Type species: *Macronevra winthemi* Macquart, 1834 [= *Mycetobia ferruginosa* Meigen, 1830], mon.

Unidentified spp. — Australia (Tonnoir, 1929*b*: 594; Colless, 1963*a*: 307).



## 8. Family KEROPLATIDAE

By Loïc Matile

The world fauna of Keroplatidae presently contains approximately 90 genera and 700 described species. The family is distributed worldwide from Greenland in the north to the Crozet Is in the south. The first fossil to be placed in this family with certainty belongs to the mid-Cretaceous fauna of France, and many species are known from the Cenozoic, especially from Baltic amber.

Twenty-eight genera and 103 named valid species are cited in this catalog, a number that is probably much lower than the actual number of species in the Australasian fauna, especially since Australia is still poorly studied and New Guinea is practically unknown faunistically. Both areas undoubtedly harbor many undescribed species. Colless (1970b), in a preliminary study, estimated that only 30% of the Australian fauna of mycetophiloids had been described and that there were "a number of new or unrecorded genera."

It now appears that the keroplatid fauna is represented primarily by an old Transantarctic element, and the rest is pantropical or of Indo-Malayan affinity.

Most keroplatids are sylvan in habit. Larvae inhabit damp, dark places, sometimes caves, most often under Polyporaceae (bracket fungi) where they spin hygroscopic webs used for collecting spores or ensnaring small living invertebrate prey. Of the genera known from the Australasian Region, larvae of *Arachnocampa*, *Macrocera*, and *Xenoplatyura* are predaceous, and those of *Cerotelion* and *Heteropterna* are mycophagous. Predaceous species kill their prey with an acid fluid (mostly oxalic acid) secreted by labial glands and deposited in the droplets of their web; mycophagous larvae also have acid webs and occasionally feed on pupae of their own species or on dead insects.

Some keroplatids have luminescent larvae (and adults), the most celebrated being the New Zealand glow worm, *Arachnocampa luminosa* [see Pugsley (1983) for an exhaustive review of literature on this species and Pugsley (1984) on its ecology in the Waitomo Caves]. The Australian

*Mallochinus mastersi* is also said to have luminous larvae.

The larva of *Planarivora insignis*, a Tasmanian species, is very peculiar in that it lives endoparasitically in land planarians (Hickman 1965). The biology of the larvae of most other genera is still unknown.

Adults are also mostly found in dark, damp places, sometimes in caves, where they may gather by the thousands (e.g., *Neoplatyura monticola*). Their flight is slow and their habits are mostly crepuscular or nocturnal. They can be swept in low vegetation, under overhanging rocks and trunks, and along banks of streams. Excellent collections may also be made with Malaise traps. Members of the genera *Proceroplatus* and *Xenoplatyura* have been caught at UV traps and occasional specimens are collected in yellow-tray traps. Gnats of the genus *Heteropterna* (and some other exotic genera as well as other families of nematocerous Diptera) have been found hanging in spider webs, where they seem safe from attack by the spiders. Some brightly colored members of the tribe Orfeliini (*Nicholsonomyia*, *Tamborinea*) are wasps mimics.

The classification adopted here follows that of Matile (1981a, 1986b). The most important changes from other papers on the Australasian fauna are the raising of *Arachnocampa* [as already suggested by Colless (1970b)] and *Macrocera* group of genera to subfamily rank, the raising of the subgenera recognized by Edwards (1929b) in "*Platyura*" Meigen (= *Orfelia*) and *Keroplatus* to generic rank, and the separation of Keroplatinae into 2 tribes: Keroplatini and Orfeliini.

Few papers have been published on the Australasian keroplatid fauna aside from the New Zealand glow worm. Matile (1986b) recently revised the Arachnocampinae, Macrocerinae and Keroplatini, reviewed what little was known of their biology, and gave keys to the world genera.

*Refs.*: Skuse (1888c, 1890d), Tonnoir (1929b, Australian gen.), Tonnoir & Edwards (1927, NZ spp.), Hardy (1960, Hawaiian spp.), Colless (1966, Micronesian spp.), Matile (1988c, New Caledonian spp.).

## Subfamily ARACHNOCAMPINAE

## Genus ARACHNOCAMPA Edwards

ARACHNOCAMPA Edwards, 1924e: 177. Type species: *Bolitophila luminosa* Skuse, 1891, orig. des.

## Subgenus ARACHNOCAMPA Edwards

ARACHNOCAMPA Edwards, 1924e: 177 (as gen.). Type species: *Bolitophila luminosa* Skuse, 1891, orig. des.

*luminosa* Skuse, 1891: 678 (*Bolitophila*). NZ (NZ).

*tasmaniensis* Ferguson, 1925: 487. Australia (Tas).

## Subgenus CAMPARA Harrison

CAMPARA Harrison, 1966: 880. Type species: *Arachnocampa richardsae* Harrison, 1966, orig. des. *flava* Harrison, 1966: 880. Australia (Qld).

*richardsae* Harrison, 1966: 881. Australia (NSW).

## Subfamily MACROCERINAE

## Genus CHIASMONEURA de Meijere

CHIASMONEURA de Meijere, 1913d: 324. Type species: *Chiasmoneura anthracina* de Meijere, 1913, mon.

## Subgenus CHIASMONEURA de Meijere

CHIASMONEURA de Meijere, 1913d: 324 (as gen.). Type species: *Chiasmoneura anthracina* de Meijere, 1913, mon.

*cyclophora* Edwards, 1929a: 96. Vanuatu.

## Subgenus PROCHIASMONEURA Matile

PROCHIASMONEURA Matile, 1988b: 60. Type species: *Chiasmoneura bipunctata* Matile, 1973, orig. des.

*fenestrata* Edwards in Tonnoir & Edwards, 1927: 774 (*Macrocera*). NZ (NZ).

*milligani* Tonnoir in Tonnoir & Edwards, 1927: 773 (*Macrocera*). NZ (NZ).

## Genus MACROCERA Meigen

MACROCERA Meigen, 1803: 261. Type species: *Macrocera lutea* Meigen, 1804, des. Curtis, 1837a: 637.

*annulata* Tonnoir in Tonnoir & Edwards, 1927: 777. NZ (NZ).

*antennalis* Marshall, 1896b: 271. NZ (NZ).

*campbelli* Edwards in Tonnoir & Edwards, 1927: 775. NZ (NZ); NZ (Auckland Is).

*decorosa* Skuse, 1888c: 1159. Australia (NSW).

*delicata* Skuse, 1888c: 1158. Australia (NSW).

*fusca* Tonnoir in Tonnoir & Edwards, 1927: 777. NZ (NZ).

*glabrata* Tonnoir in Tonnoir & Edwards, 1927: 778. NZ (NZ).

*gourlayi* Tonnoir in Tonnoir & Edwards, 1927: 777. NZ (NZ).

*howletti* Marshall, 1896b: 270. NZ (NZ).

*montana* Marshall, 1896b: 270. NZ (NZ).

*hudsoni* Tonnoir in Tonnoir & Edwards, 1927: 776. NZ (NZ).

*mastersi* Skuse, 1888c: 1161. Australia (NSW).

*ngaireae* Edwards in Tonnoir & Edwards, 1927: 776. NZ (NZ).

*nitens* Edwards, 1928c: 28. American Samoa.

*obsoleta* Edwards in Tonnoir & Edwards, 1927: 775. NZ (NZ).

*pulchra* Tonnoir in Tonnoir & Edwards, 1927: 776. NZ (NZ).

*ruficollis* Edwards in Tonnoir & Edwards, 1927: 777. NZ (NZ).

*scoparia* Marshall, 1896b: 272. NZ (NZ).

*tonnoiri* Matile, n. n. NZ (NZ).

*inconspicua* Tonnoir in Tonnoir & Edwards, 1927: 778. NZ (NZ). [Preocc. Brunetti, 1912.]

*unipunctata* Tonnoir in Tonnoir & Edwards, 1927: 774. NZ (NZ).

### Genus PARAMACROCERA Edwards

**PARAMACROCERA** Edwards in Tonnoir & Edwards, 1927: 779. Type species: *Paramacrocera brevicornis* Edwards, 1927, orig. des.

*brevicornis* Edwards in Tonnoir & Edwards, 1927: 779. NZ (NZ).

## Subfamily KEROPLATINAE

### Tribe KEROPLATINI

#### Genus CEROTELION Rondani

**CEROTELION** Rondani, 1856: 191. Type species: *Platyura laticornis* Meigen, 1818 [= *Tipula lineata* Fabricius, 1775], orig. des.

*bimaculatum* Tonnoir in Tonnoir & Edwards, 1927: 781. NZ (NZ).

*dendyi* Marshall, 1896b: 275 (*Keroplatus*). NZ (NZ).

*hudsoni* Marshall, 1896b: 276 (*Keroplatus*). NZ (NZ).

*leucoceras* Marshall, 1896b: 276 (*Keroplatus*). NZ (NZ).

*nigrum* Tonnoir in Tonnoir & Edwards, 1927: 781. NZ (NZ).

*tapleyi* Edwards in Tonnoir & Edwards, 1927: 781. NZ (NZ).

*vitripenne* Tonnoir in Tonnoir & Edwards, 1927: 780. NZ (NZ).

#### Genus EUCEROPLATUS Edwards

**EUCEROPLATUS** Edwards, 1929e: 174 (*Keroplatus* subg.). Type species: *Keroplatus notaticoxa* Senior-White, 1922, orig. des.

Undescribed spp. — Australia (Qld), PNG (PNG), Solomon Is.

#### Genus HETEROPTERNA Skuse

**HETEROPTERNA** Skuse, 1888c: 1166. Type species: *Heteropterna macleayi* Skuse, 1888, orig. des.

*affinis* Skuse, 1890d: 601. Australia (NSW).

*annulipes* Colless, 1966: 642 (*Keroplatus*). Belau. N. comb

*macleayi* Skuse, 1888c: 1167. Australia (NSW).

#### Genus MALLOCHINUS Edwards, n. stat.

**MALLOCHINUS** Edwards, 1929e: 174 (*Keroplatus* subg.). Type species: *Keroplatus mastersi* Skuse, 1888, orig. des.

*mangalorensis* Edwards, 1929e: 174 (*Keroplatus*). Australia (Tas). N. comb.

*mastersi* Skuse, 1888c: 1164 (*Keroplatus*). Australia (Tas). N. comb.

#### Genus PLATYROPTILON Westwood

**PLATYROPTILON** Westwood, 1850: 231 (*Platyura* subg.). Type species: *Platyura miersii* Westwood, 1850, mon.

*collessi* Matile, 1982: 287. Australia (Qld).

### Tribe ORFELIINI

#### Genus ANTRIADOPHILA Skuse

- ANTRIADOPHILA** Skuse, 1888c: 1183. Type species: *Antriadophila nubipennis* Skuse, 1888, des. Johannsen, 1909: 16.  
*electilis* Skuse, 1888c: 1187. Australia (NSW).  
*nigra* Skuse, 1888c: 1188. Australia (?NSW); Australia (Qld).  
*nubipennis* Skuse, 1888c: 1184. Australia (?NSW).  
*petulans* Skuse, 1888c: 1186. Australia (NSW).

#### Genus ISONEUROMYIA Brunetti

- ISONEUROMYIA** Brunetti, 1912b: 66. Type species: *Isoneuromyia annandalei* Brunetti, 1912, mon. *harrisi* Tonnoir in Tonnoir & Edwards, 1927: 786 (*Platyura*). NZ (NZ). **N. comb.**  
*magna* Walker, 1848: 89 (*Platyura*). "New Holland." **N. comb.**  
*novaezelandiae* Tonnoir in Tonnoir & Edwards, 1927: 786 (*Platyura*; n. n. for *magna* Marshall). NZ (NZ). **N. comb.**  
*magna* Marshall, 1896b: 278 (*Platyura*). NZ (NZ). [Preocc. Walker, 1848.]

#### Genus LAURYPTA Edwards

- LAURYPTA** Edwards, 1929e: 171 (*Platyura* subg.). Type species: *Platyura leptura* Edwards, 1929, orig. des.  
*apicalis* Colless, 1966: 650 (*Orfelia*). Belau. **N. comb.**

#### Genus LUTARPYA Edwards

- LUTARPYA** Edwards, 1929e: 172 (*Platyura* subg.). Type species: *Platyura fulva* Skuse, 1888, orig. des.  
*fulva* Skuse, 1888c: 1176 (*Platyura*). Australia (NSW); Australia (Qld).

#### Genus NEOANTLEMON Tonnoir

- NEOANTLEMON** Tonnoir, 1929b: 595. Type species: *Neoantlemon apicalis* Tonnoir, 1929, orig. des.  
*apicale* Tonnoir, 1929b: 595. Australia (Tas).

#### Genus NEOPLATYURA Malloch

- NEOPLATYURA** Malloch, 1928h: 601. Type species: *Platyura setiger* Johannsen, 1910, orig. des.  
*brookesi* Edwards in Tonnoir & Edwards, 1927: 786 (*Platyura*). NZ (NZ). **N. comb.**  
*digitata* Colless, 1966: 646 (*Orfelia*). Bonin Is.  
*fidelis* Edwards, 1929e: 167 (*Platyura*). Australia (Tas).  
*lamellata* Tonnoir in Tonnoir & Edwards, 1927: 785 (*Platyura*). NZ (NZ). **N. comb.**  
*marshalli* Tonnoir in Tonnoir & Edwards, 1927: 785 (*Platyura*; n. n. for *flava* Marshall). NZ (NZ). **N. comb.**  
*flava* Marshall, 1896b: 281 (*Platyura*). NZ (NZ). [Preocc. Macquart, 1826.]  
*monticola* Skuse, 1888c: 1177 (*Platyura*). Australia (NSW). **N. comb.**  
*palauensis* Colless, 1966: 645 (*Orfelia*). Belau.  
*petiolata* Colless, 1966: 645 (*Orfelia*). Guam.  
*proxima* Tonnoir in Tonnoir & Edwards, 1927: 785 (*Platyura*). NZ (NZ). **N. comb.**  
*richmondensis* Skuse, 1890d: 604 (*Platyura*). Australia (NSW); Australia (Qld).  
*spinosa* Colless, 1966: 644 (*Platyura*). Micronesia.  
*tasmanica* Edwards, 1929e: 168 (*Platyura*). Australia (Tas).

**Genus NICHOLSONOMYIA Tonnoir**

**NICHOLSONOMYIA** Tonnoir, 1929*b*: 596. Type species: *Nicholsonomyia vespiformis* Tonnoir, 1929, orig. des.  
*vespiformis* Tonnoir, 1929*b*: 596. Australia (NSW).

**Genus PLANARIVORA Hickman**

**PLANARIVORA** Hickman, 1965: 1. Type species: *Planarivora insignis* Hickman, 1965, orig. des.  
*insignis* Hickman, 1965: 3. Australia (Tas).

**Genus PROCEROPLATUS Edwards**

**PROCEROPLATUS** Edwards, 1925*b*: 523. Type species: *Platyura pictipennis* Williston, 1896, orig. des.  
*graphicus* Skuse, 1888*c*: 1179 (*Platyura*). Australia (NSW).

**Genus PSEUDOPLATYURA Skuse**

**PSEUDOPLATYURA** Skuse, 1888*c*: 1180. Type species: *Pseudoplatyura dux* Skuse, 1888, mon.  
*dux* Skuse, 1888*c*: 1182. Australia (NSW).  
*truncata* Tonnoir in Tonnoir & Edwards, 1927: 781. NZ (NZ).

**Genus PYRTAULA Edwards, n. stat.**

**PYRTAULA** Edwards, 1929*e*: 166 (*Platyura* subg.). Type species: *Platyura agricolae* Marshall, 1896, orig. des.

- *agricolae* Marshall, 1896*b*: 279 (*Platyura*). NZ (NZ). **N. comb.**
- *campbelli* Tonnoir in Tonnoir & Edwards, 1927: 789 (*Platyura*). NZ (NZ); NZ (Antipodes Is). **N. comb.**
- *carbonaria* Tonnoir in Tonnoir & Edwards, 1927: 788 (*Platyura*). NZ (NZ). **N. comb.**
- *chiltoni* Tonnoir in Tonnoir & Edwards, 1927: 789 (*Platyura*). NZ (NZ). **N. comb.**
- *curtisi* Edwards, in Tonnoir & Edwards, 1927: 790 (*Platyura*). NZ (NZ). **N. comb.**
- *fenestralis* Skuse, 1888*c*: 1172 (*Platyura*). Australia (NSW); Australia (Tas, Vic). **N. comb.**
- *flavipennis* Edwards, 1929*e*: 166 (*Platyura*; n. n. for *venusta* Skuse). Australia (NSW); Australia (Qld). **N. comb.**
- *venusta* Skuse, 1888*c*: 1174 (*Platyura*). Australia (NSW). [Preocc. Walker, 1856.]
- *maculipennis* Tonnoir in Tonnoir & Edwards, 1927: 788 (*Platyura*). NZ (NZ). **N. comb.**
- *okahunensis* Edwards in Tonnoir & Edwards, 1927: 790 (*Platyura*). NZ (NZ). **N. comb.**
- *philpotti* Tonnoir in Tonnoir & Edwards, 1927: 787 (*Platyura*). NZ (NZ). **N. comb.**
- *punctifusa* Edwards in Tonnoir & Edwards, 1927: 788 (*Platyura*). NZ (NZ). **N. comb.**
- *ruficauda* Tonnoir in Tonnoir & Edwards, 1927: 789 (*Platyura*). NZ (NZ). **N. comb.**
- *rufipectus* Tonnoir in Tonnoir & Edwards, 1927: 790 (*Platyura*). NZ (NZ). **N. comb.**
- *rutila* Edwards in Tonnoir & Edwards, 1927: 787 (*Platyura*). NZ (NZ). **N. comb.**
- *westralis* Edwards, 1929*e*: 166 (*Platyura*). Australia (WA). **N. comb.**

**Genus PYRTULINA Matile**

**PYRTULINA** Matile, 1977: 33. Type species: *Pyrtulina pumila* Matile, 1977, orig. des.  
 Undetermined spp. — New Caledonia (New Caledonia) (Matile, *in litt.*).

**Genus RUTYLAPA Edwards**

**RUTYLAPA** Edwards, 1929*e*: 171 (*Platyura* subg.). Type species: *Platyura ruficornis* Zetterstedt, 1851, orig. des.  
*gressitti* Colless, 1966: 649 (*Orfelia*). Micronesia.

**Genus RYPATULA Edwards, n. stat.**

- RYPATULA** Edwards, 1929e: 167 (*Platyura* subg.). Type species: *Platyura brevis* Tonnoir in Tonnoir & Edwards, 1927, orig. des.  
**brevis** Tonnoir in Tonnoir & Edwards, 1927: 784 (*Platyura*). NZ (NZ); NZ (Auckland Is, Campbell I).  
 N. comb.  
**gracilis** Skuse, 1890d: 603 (*Platyura*). Australia (NSW). N. comb.  
**subbrevis** Tonnoir in Tonnoir & Edwards, 1927: 784 (*Platyura*). NZ (NZ). N. comb.

**Genus TAMBORINEA Matile**

- TAMBORINEA** Matile, 1981b: 207. Type species: *Tamborinea commoni* Matile, 1981, orig. des.  
**commoni** Matile, 1981b: 209. Australia (Qld).

**Genus TRIGEMMA Hardy, n. stat.**

- TRIGEMMA** Hardy, 1960: 201 (*Orfelia* subg.). Type species: *Orfelia infurcata* Hardy, 1960, orig. des.  
**infurcata** Hardy, 1960: 201 (*Orfelia*). Hawaiian Is. N. comb.

**Genus TYLPARUA Edwards, n. stat.**

- TYLPARUA** Edwards, 1929e: 172 (*Platyura* subg.). Type species: *Platyura hawaiiensis* Grimshaw, 1901, orig. des.  
**cratericola** Hardy, 1960: 203 (*Orfelia*). Hawaiian Is. N. comb.  
**fuscocostata** Grimshaw, 1901: 2 (*Platyura*). Hawaiian Is. N. comb.  
**hawaiiensis** Grimshaw, 1901: 3 (*Platyura*). Hawaiian Is. N. comb.  
**insularis** Grimshaw, 1901: 4 (*Platyura*). Hawaiian Is. N. comb.

**Genus XENOPLATYURA Malloch**

- XENOPLATYURA** Malloch, 1928h: 601. Type species: *Platyura conformis* Skuse, 1888, orig. des.  
**conformis** Skuse, 1888c: 1175 (*Platyura*). Australia (NSW); Australia (Qld).  
**contingens** Skuse, 1890d: 602 (*Platyura*). Australia (NSW). N. comb.  
**doddi** Edwards, 1929e: 169 (*Platyura*). Australia (Qld). N. comb.  
**hopkinsi** Edwards, 1928c: 29 (*Platyura*). Western Samoa. N. comb.  
**pottsi** Colless, 1966: 647 (*Orfelia*). Micronesia. N. comb.  
**schineri** Skuse, 1888c: 1174 (*Platyura*). Australia (NSW). N. comb.

**Unplaced species of Orfeliini**

- albovittata** Tonnoir in Tonnoir & Edwards, 1927: 784 (*Platyura*). NZ (NZ).  
**micella** Colless, 1966: 651 (*Orfelia*). Belau.'

## 9. Family LYGISTORRHINIDAE

By F. Christian Thompson

**L**ygistorrhinidae is a small family of fungus gnats (Sciaroidea) that are rather homogenous and easily recognized by elongate mouthparts and reduced wing venation. Overall size is ca. 4 to 5 mm; mouthparts are greatly elongate, at least 3x as long as height of head, and consist of 5 filaments, a pair of one-segmented palpi, a pair of labellae, and a hypopharynx. Wings are ca. 2 mm long, with Sc short and ending in the costal cell, R<sub>1</sub> and R<sub>5</sub> ending in C and separately extending to the base of the wing, M<sub>1</sub> and M<sub>2</sub> present only as apical fragments, CuA<sub>1</sub> (M<sub>4</sub> of earlier authors) also present only as an apical fragment, CuA<sub>2</sub> is entire, and the anal veins are absent or indistinct.

Lygistorrhine fungus gnats are considered to belong to a single genus, *Lygistorrhina*. This genus has usually been recognized as representing a separate entity in the higher classification of fungus gnats, either as a subfamily (Edwards 1925b, Tonnoir 1929b, Okada 1937, Shaw & Shaw 1951, Laffoon 1965, Vockeroth 1981) or as a family (Hen-

nig 1948, 1954, 1966, 1968b, 1969b, 1973; Brauns 1954a,b; Rohdendorf 1964; Stackelberg 1969; Thompson 1975; Papavero 1977b; Matile 1981, 1986a, 1988a). Only Tuomikoski (1966b) has combined lygistorrhine fungus gnats with another group (Keroplastidae), but Thompson (1975) demonstrated that his arrangement was based on symplesiomorphy. Pragmatically, Thompson recognized only 1 genus, divided into 3 subgenera: *Probolaeus* Williston (New World spp.); *Palaeognoriste* Meunier (a fossil sp. in Baltic amber); and *Lygistorrhina* s. str. (Old World spp.).

Although lygistorrhine fungus gnats are extremely rare in collections, they can be locally abundant and are found in the warmer parts of all biotic regions: Nearctic (1 sp.), Neotropical (6), Palearctic (1), Oriental (2), Afrotropical (1), and Australasian/Oceanian (2). Since Thompson (1975), only 2 additional species have been described [Matile, 1979: 254 (*nassreddinei* from the Comoro Is, Africa), 1986a (*vide infra*)].

Ref.: Thompson (1975, syst., key, checklist).

### Genus LYGISTORRHINA Skuse

**LYGISTORRHINA** Skuse, 1890d: 598. Type species: *Lygistorrhina insignis* Skuse, 1890, mon. *carayoni* Matile, 1986a: 286. New Caledonia (New Caledonia). *insignis* Skuse, 1890d: 600. Australia (NSW).



## 10. Family MYCETOPHILIDAE

By Loïc Matile

131 + (19) ← fossil genera?

Among the world mycetophiloids, the family Mycetophilidae is the most diversified, with about 3,000 species in 150 genera and at least twice this number of species awaiting description. The family is cosmopolitan, being well represented in forested areas worldwide. A number of the extant genera have been preserved in Baltic amber (late Eocene to lower Oligocene), and the available paleontological and biogeographical information implies that the family was already well diversified by at least the Middle Cretaceous.

Forty-nine genera and 236 named valid species are recorded in this catalog. As with other families of mycetophiloids, this number is certainly far below the true number of species in the Australasian fauna (see Colless 1970b).

Like the Keroplastidae, the mycetophilid fauna of these regions contains an old Transantarctic element plus pantropical and Indomalayan elements. As far as can be ascertained without phylogenetic and biogeographic studies on Oriental and Australasian mycetophilids (yet to be undertaken), the greatest part of the Australasian fauna seems predominantly of Oriental origin. *Morganiella*, *Austrosciophila*, *Paramorganiella*, *Tasmanina*, *Taxicnemis*, and *Trizygia* (Sciophilinae); *Anomalomyia*, *Ateleia*, *Caethronia*, *Cycloneura*, *Paracycloneura*, *Paradoxia*, *Sigmoleia*, and *Trichoterga* (Leiinae); and *Pseudalyysiina* and *Zygophronia* (Mycetophilinae) are endemic Australasian genera, many with close relationships to Neotropical genera with a Chilean center of endemism.

Most mycetophilids inhabit wet forests but are quite common in swamps and are present, although in limited numbers of species, in the moister parts of heath and open grassland.

Larvae of mycetophilids are mainly bound to the sporophores of fleshy Basidiomycetes (esp. Agaricaceae, Amanitaceae, Boletaceae, and Russulaceae) inside which they feed on spores and hyphae (or perhaps on spores only). Some species can be bred from Polyporaceae (bracket fungi) and rarely from Ascomycetes and Myxomycetes. A few species are monophagous or polyphagous, most of

the other species are restricted to particular genera or families of fungi.

Other larvae (esp. Mycomyinae, Sciophilinae, and Leiinae) spin glutinous webs under sporophores or under bark of dead trunks and branches. Some of these larvae are predaceous and others mycophagous. A few Afrotropical and Palearctic species are reported to live on mosses and liverworts.

Nothing seems to be known of the larval biology of the Australasian mycetophilids. Regarding genera known from these regions and bred elsewhere, larvae of *Mycomya* spin webs under bark, in cavities of rotten wood, and more rarely under fungi. There is definite evidence of their mycophagy, but some species may be predaceous (Väisänen 1984). It has been demonstrated that the larvae of a Palearctic species of *Neoempheria* are predaceous. *Phthinia* and *Tetragoneura* have been reported from rotting wood associated with fungi, and *Manota* and *Platurocypta* from Myxomycetes. All the Australasian genera of Exechiini and *Mycetophila* have been bred elsewhere on fleshy Basidiomycetes. Other members of the Mycetophilini are surface feeders under encrusting fungi (*Trichonta*, *Phronia*) or mycelium on wood (*Epicrypta*) (Stubbs & Chandler 1978, Hackman & Meinander 1979).

Imagos of mycetophilids are found mostly in damp and shady places in forests or along stream banks in open country. They also occur in nests of small mammals and in caves, sometimes in great numbers (*Antriadophila petulans*). They can be collected by sweeping, occasionally at light traps or windows, and very good results are obtained with yellow-tray and Malaise traps.

The orange and black *Pseudalyysiina mimicans* from Tasmania mimics a braconid wasp of the tribe *Alysiini* (Tonnoir 1929b).

Some of the present families of Sciaroidea have long been treated as mere subfamilies of Mycetophilidae, and are still considered as such by many taxonomists. The main papers on the systematics of Australasian mycetophilids are mostly



the same as for keroplatids: Skuse (1888c, 1890d) and Tonnoir (1929b) for Australia, Tonnoir & Edwards (1927) for New Zealand, and Colless (1966) for Micronesia.

The phylogeny of the subfamilies of Mycetophilidae is far from being clarified, and several

subfamilies are probably polyphyletic. Therefore the classification adopted here is rather conventional, following Edwards (1925b) for the main divisions of the family but raising most of his tribes to subfamily rank as proposed by Väisänen (1984).

## Subfamily MYCOMYINAE

### Genus MYCOMYA Rondani

**MYCOMYA** Rondani, 1856: 194. Type species: *Sciophila marginata* Meigen, 1818, orig. des. **MYCOMYIA**, error for *Mycomya*.

**flavilatera** Tonnoir in Tonnoir & Edwards, 1927: 802. NZ (NZ).

**furcata** Edwards in Tonnoir & Edwards, 1927: 802. NZ (NZ).

**humeralis** Skuse, 1890d: 609 (*Sciophila*). Australia (NSW).

**maccoyi** Skuse, 1890d: 606 (*Sciophila*). Australia (Vic).

**par** Walker, 1856d: 417 (*Sciophila*). Australia (Tas).

**pictithorax** Skuse, 1890d: 607 (*Sciophila*). Australia (NSW).

**plagiata** Tonnoir in Tonnoir & Edwards, 1927: 802. NZ (NZ).

**richmondensis** Skuse, 1890d: 608 (*Sciophila*). Australia (NSW).

**sylvicola** Skuse, 1890d: 610 (*Sciophila*). Australia (NSW).

### Genus NEOEMPHERIA Osten Sacken

**EMIPHERIA** Winnertz, 1863: 738. Type species: *Sciophila striata* Meigen, 1818, des. Coquillett, 1910: 537. [Preocc. Hagen, 1854.]

**NEOEMIPHERIA** Osten Sacken, 1878: 9 (n. n. for *Empheria*).

**signifera** Skuse, 1890d: 611. Australia (NSW).

**vicina** Colless, 1966: 652. Bonin Is.

## Subfamily SCIOPHILINAE

### Genus ALLOCOTOCERA Mik

**ALLOCOTOCERA** Mik, 1886a: 102 (n. n. for *Eurycera*).

**EURYCERA** Dziedzicki, 1885: 166. Type species: *Eurycera flava* Dziedzicki, 1885 [= *Leia pulchella* Curtis, 1837], mon. [Preocc. de Laporte, 1833.]

**EURYCERAS** Marshall, 1896b: 291. Type species: *Euryceras anaclinoides* Marshall, 1896, mon.

**anaclinoides** Marshall, 1896b: 292 (*Euryceras*). NZ (NZ).

**cephasi** Edwards in Tonnoir & Edwards, 1927: 803. NZ (NZ).

**crassipalpis** Tonnoir in Tonnoir & Edwards, 1927: 804. NZ (NZ).

**dilatata** Tonnoir in Tonnoir & Edwards, 1927: 804. NZ (NZ).

### Genus ANEURA Marshall

**ANEURA** Marshall, 1896b: 287. Type species: *Aneura boletinoides*, Marshall, 1896, mon.

**appendiculata** Tonnoir in Tonnoir & Edwards, 1927: 808. NZ (NZ).

**bispinosa** Edwards in Tonnoir & Edwards, 1927: 808. NZ (NZ).

**boletinoides** Marshall, 1896b: 288. NZ (NZ); NZ (Auckland Is).

**defecta** Edwards in Tonnoir & Edwards, 1927: 809. NZ (NZ).

**fagi** Marshall, 1896b: 282 (*Sciophila*). NZ (NZ).

**filiformis** Tonnoir in Tonnoir & Edwards, 1927: 807. NZ (NZ).

- fusca* Tonnoir *in* Tonnoir & Edwards, 1927: 807. NZ (NZ).  
*longicauda* Tonnoir *in* Tonnoir & Edwards, 1927: 809. NZ (NZ).  
*longipalpis* Tonnoir *in* Tonnoir & Edwards, 1927: 809. NZ (NZ).  
*nitida* Tonnoir *in* Tonnoir & Edwards, 1927: 807. NZ (NZ).  
*pallida* Edwards *in* Tonnoir & Edwards, 1927: 810. NZ (NZ).

### Genus EUDICRANA Loew

- EUDICRANA** Loew, 1870: 142 [1872*b*: 180]. Type species: *Eudicrana obumbrata* Loew, 1870, mon.  
**PAREUDICRANA** Tonnoir, 1929*b*: 600. Type species: *Pareudicrana monticola* Tonnoir, 1929, orig. des.  
**monticola** Tonnoir, 1929*b*: 600 (*Pareudicrana*). Australia (Tas). **N. comb.**  
**nicholsoni** Tonnoir, 1929*b*: 600 (*Pareudicrana*). Australia (NSW). **N. comb.**

### Genus AUSTROSCIOPHILA Tonnoir, n. stat

- AUSTROSCIOPHILA** Tonnoir, 1929*b*: 604 (*Sciophila* subg.). Type species: *Sciophila solitaria* Tonnoir, 1929, orig. des.  
**solitaria** Tonnoir, 1929*b*: 604 (*Sciophila*). Australia (Tas). **N. comb.**

### Genus MORGANIELLA Tonnoir & Edwards

- MORGANIELLA** Tonnoir & Edwards, 1927: 817. Type species: *Morganiella fusca* Tonnoir *in* Tonnoir & Edwards, 1927, orig. des.  
**fusca** Tonnoir *in* Tonnoir & Edwards, 1927: 817. NZ (NZ).

### Genus NEOALLOCOTOCERA Tonnoir

- NEOALLOCOTOCERA** Tonnoir, 1929*b*: 601. Type species: *Neoallocotocera fusca* Tonnoir, 1929, orig. des.  
**fusca** Tonnoir, 1929*b*: 601. Australia (Tas).

### Genus NEOAPHELOMERA Miller

- APHELOMERA** Skuse, 1888*c*: 1206. Type species: *Aphelomera sydneyensis* Skuse, 1888, mon. [Preocc. Stephens, 1833.]  
**NEOAPHELOMERA** Miller, 1945: 72 (n. n. for *Aphelomera*).  
**elongata** Tonnoir *in* Tonnoir & Edwards, 1927: 815 (*Aphelomera*). NZ (NZ).  
**forcipata** Edwards *in* Tonnoir & Edwards, 1927: 815 (*Aphelomera*). NZ (NZ).  
**longicauda** Edwards *in* Tonnoir & Edwards, 1927: 815 (*Aphelomera*). NZ (NZ).  
**majuscula** Edwards *in* Tonnoir & Edwards, 1927: 814 (*Aphelomera*). NZ (NZ).  
**marshalli** Edwards *in* Tonnoir & Edwards, 1927: 816 (*Aphelomera*). NZ (NZ).  
**opaca** Tonnoir *in* Tonnoir & Edwards, 1927: 814 (*Aphelomera*). NZ (NZ).  
**sydneyensis** Skuse, 1888*c*: 1207 (*Aphelomera*). Australia (NSW). **N. comb.**  
**skusei** Marshall, 1896*b*: 296 (*Aphelomera*). NZ (NZ); NZ (Auckland Is).

### Genus NEOTRIZYGIA Tonnoir & Edwards

- NEOTRIZYGIA** Tonnoir & Edwards, 1927: 816. Type species: *Neotrizygia obscura* Tonnoir *in* Tonnoir & Edwards, 1927, orig. des.  
**obscura** Tonnoir *in* Tonnoir & Edwards, 1927: 816. NZ (NZ).

### Genus PARAMORGANIELLA Tonnoir

- PARAMORGANIELLA** Tonnoir, 1929*b*: 606. Type species: *Paramorganiella adventurosa* Tonnoir, 1929, orig. des.

*adventurosa* Tonnoir, 1929b: 606. Australia (Tas).

#### Genus PARATRIZYGIA Tonnoir

**PARATRIZYGIA** Tonnoir, 1929b: 605. Type species: *Paratrizygia conformis* Tonnoir, 1929, orig. des. *conformis* Tonnoir, 1929b: 605. Australia (Tas).

#### Genus PARVICELLULA Marshall

**PARVICELLULA** Marshall, 1896b: 284. Type species: *Parvicellula triangula* Marshall, 1896, mon. *apicalis* Tonnoir in Tonnoir & Edwards, 1927: 811. NZ (NZ).  
*fascipennis* Edwards in Tonnoir & Edwards, 1927: 811. NZ (NZ).  
*gracilis* Tonnoir in Tonnoir & Edwards, 1927: 811. NZ (NZ).  
*hamata* Edwards in Tonnoir & Edwards, 1927: 812. NZ (NZ).  
*nigricoxa* Tonnoir in Tonnoir & Edwards, 1927: 812. NZ (NZ).  
*obscura* Tonnoir in Tonnoir & Edwards, 1927: 811. NZ (NZ).  
*ruficoxa* Tonnoir in Tonnoir & Edwards, 1927: 812. NZ (NZ).  
*subhamata* Tonnoir in Tonnoir & Edwards, 1927: 812. NZ (NZ).  
*triangula* Marshall, 1896b: 284. NZ (NZ).

#### Genus PHTHINIA Winnertz

**PHTHINIA** Winnertz, 1863: 779. Type species: *Phthinia humilis* Winnertz, 1863, des. Johannsen, 1909: 83.  
*longiventris* Tonnoir in Tonnoir & Edwards, 1927: 813. NZ (NZ).

#### Genus STENOPHRAGMA Skuse

**STENOPHRAGMA** Skuse, 1890d: 612 (n. n. for *Homaspis*).  
*HOMASPIS* Skuse, 1888c: 1191. Type species: *Homaspis meridiana* Skuse, 1888, mon. [Preocc. Förster, 1868.]  
*hirtipenne* Skuse, 1890d: 614. Australia (NSW).  
*meridianum* Skuse, 1888c: 1192 (*Homaspis*). Australia (SA).  
*picticorne* Skuse, 1890d: 613. Australia (SA).

#### Genus TASMANINA Tonnoir

**TASMANINA** Tonnoir, 1929b: 602. Type species: *Tasmanina gracilis* Tonnoir, 1929, orig. des. *gracilis* Tonnoir, 1929b: 603. Australia (Tas).

#### Genus TAXICNEMIS Tonnoir & Edwards

**TAXICNEMIS** Tonnoir & Edwards, 1927: 805. Type species: *Sciophila hirta* Marshall, 1896 [preocc., = *Taxicnemis marshalli* Matile, present work], orig. des.  
*flava* Edwards in Tonnoir & Edwards, 1927: 805. NZ (NZ).  
*marshalli* Matile, n. n. NZ (NZ).  
*hirta* Marshall, 1896b: 283 (*Sciophila*). NZ (NZ). [Preocc. Meigen, 1818.]  
 ssp. *bivittata* Edwards in Tonnoir & Edwards, 1927: 805 (*hirta*. var.). NZ (NZ).  
 ssp. *marshalli* s.str. NZ (NZ).

#### Genus TRIZYGIA Skuse

**TRIZYGIA** Skuse, 1888c: 1204. Type species: *Trizygia flavipes* Skuse, 1888, mon. *flavipes* Skuse, 1888c: 1205. Australia (NSW).

## Subfamily GNORISTINAE

## Genus AUSTROSYNAPHA Tonnoir

**AUSTROSYNAPHA** Tonnoir, 1929b: 607. Type species: *Austrosynapha hirta* Tonnoir, 1929, orig. des. *SYNAPHA*, Tonnoir & Edwards, 1927, not Meigen, 1818, misid.

**apicalis** Tonnoir in Tonnoir & Edwards, 1927: 818 (*Synapha*). NZ (NZ). N. comb.

**cawthroni** Tonnoir in Tonnoir & Edwards, 1927: 819 (*Synapha*). NZ (NZ). N. comb.

**claripennis** Tonnoir in Tonnoir & Edwards, 1927: 818 (*Synapha*). NZ (NZ). N. comb.

**gracilis** Tonnoir in Tonnoir & Edwards, 1927: 818 (*Synapha*). NZ (NZ). N. comb.

**hirta** Tonnoir, 1929b: 607. Australia (Tas).

**parva** Tonnoir in Tonnoir & Edwards, 1927: 819 (*Synapha*). NZ (NZ). N. comb.

**pulchella** Tonnoir in Tonnoir & Edwards, 1927: 819 (*Synapha*). NZ (NZ). N. comb.

**similis** Tonnoir in Tonnoir & Edwards, 1927: 818 (*Synapha*). NZ (NZ). N. comb.

## Subfamily LEIINAE

## Genus ACRODICRANIA Skuse

**ACRODICRANIA** Skuse, 1888c: 1194. Type species: *Acrodicrania atricauda* Skuse, 1888, des. Johannsen, 1909: 82.

**angustifrons** Skuse, 1890d: 616. Australia (NSW).

**atricauda** Skuse, 1888c: 1195. Australia (NSW); Australia (Qld).

**fasciata** Skuse, 1888c: 1198. Australia (NSW); Australia (Qld).

**setosicauda** Skuse, 1888c: 1196. Australia (NSW).

## Genus ANOMALOMYIA Hutton

**ANOMALA** Marshall, 1896b: 293. Type species: *Mycetophila guttata* Hutton, 1881, mon. [Preocc. Block, 1799.]

**ANOMALOMYIA** Hutton, 1904a: 134 (n. n. for *Anomala*).

**affinis** Tonnoir in Tonnoir & Edwards, 1927: 822. NZ (NZ).

**basalis** Tonnoir in Tonnoir & Edwards, 1927: 821. NZ (NZ).

**flavicauda** Edwards in Tonnoir & Edwards, 1927: 822. NZ (NZ).

**guttata** Hutton, 1881: 11 (*Mycetophila*). NZ (Auckland Is).

**immaculata** Edwards in Tonnoir & Edwards, 1927: 820. NZ (NZ).

**minor** Marshall, 1896b: 295 (*Anomala*). NZ (NZ).

**obscura** Tonnoir in Tonnoir & Edwards, 1927: 821. NZ (NZ).

**subobscura** Tonnoir in Tonnoir & Edwards, 1927: 821. NZ (NZ).

**thompsoni** Tonnoir in Tonnoir & Edwards, 1927: 822. NZ (NZ).

**viatoris** Edwards in Tonnoir & Edwards, 1927: 822. NZ (NZ).

## Genus ATELEIA Skuse

**ATELEIA** Skuse, 1888c: 1201. Type species: *Ateleia spadicithorax* Skuse, 1888, mon.

**spadicithorax** Skuse, 1888c: 1202. Australia (NSW).

## Genus CAWTHRONIA Tonnoir &amp; Edwards

**CAWTHRONIA** Tonnoir & Edwards, 1927: 825. Type species: *Cawthronia nigra* Tonnoir in Tonnoir & Edwards, 1927, orig. des.

**nigra** Tonnoir in Tonnoir & Edwards, 1927: 826. NZ (NZ).

**Genus CLASTOBASIS Skuse**

- CLASTOBASIS** Skuse, 1890d: 617. Type species: *Clastobasis tryoni* Skuse, 1890, mon.  
**RHYMOLEIA** Edwards, 1924f: 570 (*Leiomyia* subg.). Type species: *Leiomyia fijiana* Edwards, 1924, orig. des.  
**fijiana** Edwards, 1924f: 570 (*Leiomyia*). Fiji. N. comb.  
*fijiensis*, error for *fijiana*.  
**ridens** Colless, 1966: 654 (*Leia*). Bonin I. N. comb.  
**tryoni** Skuse, 1890d: 619. Australia (Qld).

**Genus CYCLONEURA Marshall**

- CYCLONEURA** Marshall, 1896b: 289. Type species: *Cycloneura flava* Marshall, 1896, mon.  
**aberrans** Tonnoir in Tonnoir & Edwards, 1927: 824. NZ (NZ).  
**flava** Marshall, 1896b: 289. NZ (NZ).  
**triangulata** Tonnoir in Tonnoir & Edwards, 1927: 825. NZ (NZ).

**Genus INDOLEIA Edwards**

- INDOLEIA** Edwards, 1928b: 6 (*Leia* subg.). Type species: *Leia bisetosa* Edwards, 1928, orig. des.  
**demeijerei** Matile, n. n. Indonesia (Maluku).  
*nigra* de Meijere, 1913a: 46 (*Leia*). Indonesia (Maluku). [Preocc. Zetterstedt, 1838.]

**Genus LEIA Meigen**

- LEIA** Meigen, 1818: 253. Type species: *Leia fascipennis* Meigen, 1818, des. Curtis, 1837a: 645.  
 Unidentified spp. — Australia (Tas) (Tonnoir, 1929b: 610), Hawaiian Is (Evenhuis, 1986a: 3).

**Genus PARACYCLONEURA Tonnoir & Edwards**

- PARACYCLONEURA** Tonnoir & Edwards, 1927: 825. Type species: *Paracycloneura apicalis* Tonnoir in Tonnoir & Edwards, 1927, orig. des.  
**apicalis** Tonnoir in Tonnoir & Edwards, 1927: 825. NZ (NZ).

**Genus PARADOXA Marshall**

- PARADOXA** Marshall, 1896b: 290. Type species: *Paradoxa fusca* Marshall, 1896, mon.  
**fusca** Marshall, 1896b: 290. NZ (NZ); NZ (Auckland Is).

**Genus PARALEIA Tonnoir**

- PARALEIA** Tonnoir, 1929b: 611. Type species: *Paraleia fulvescens* Tonnoir, 1929, orig. des.  
**fulvescens** Tonnoir, 1929b: 611. Australia (Tas); Australia (NSW, Qld).

**Genus SIGMOLEIA Tonnoir & Edwards**

- SIGMOLEIA** Tonnoir & Edwards, 1927: 826. Type species: *Sigmoleia melanoxantha* Edwards in Tonnoir & Edwards, 1927, orig. des.  
**melanoxantha** Edwards in Tonnoir & Edwards, 1927: 826. NZ (NZ).

**Genus TETRAGONEURA Winnertz**

- TETRAGONEURA** Winnertz, 1846: 18. Type species: *Tetragoneura distincta* Winnertz, 1846 [= *Sciophila sylvatica* Curtis, 1837], des. Johannsen, 1909: 34.  
**exigua** Matile, n. n. NZ (NZ).  
*minuta* Tonnoir in Tonnoir & Edwards, 1927: 832. NZ (NZ). [Preocc. Meunier, 1904.]

- flexa* Edwards *in* Tonnoir & Edwards, 1927: 833. NZ (NZ).  
*minima* Tonnoir *in* Tonnoir & Edwards, 1927: 830. NZ (NZ); NZ (Auckland Is, Campbell I).  
*nigra* Marshall, 1896*b*: 286. NZ (NZ).  
*obliqua* Edwards *in* Tonnoir & Edwards, 1927: 831. NZ (NZ).  
*obscura* Tonnoir *in* Tonnoir & Edwards, 1927: 832. NZ (NZ).  
*proxima* Tonnoir *in* Tonnoir & Edwards, 1927: 831. NZ (NZ).  
*rufipes* Tonnoir *in* Tonnoir & Edwards, 1927: 833. NZ (NZ); NZ (Auckland Is, Campbell I).  
*spinipes* Edwards *in* Tonnoir & Edwards, 1927: 830. NZ (NZ).  
*tonnoiri* Matile, n. n. NZ (NZ).  
*distincta* Tonnoir *in* Tonnoir & Edwards, 1927: 832. NZ (NZ). [Preocc. Winnertz, 1846.]  
*ultima* Tonnoir *in* Tonnoir & Edwards, 1927: 833. NZ (NZ)  
*venusta* Tonnoir *in* Tonnoir & Edwards, 1927: 831. NZ (NZ)

### Genus TRICHOTERGA Tonnoir & Edwards

- TRICHOTERGA Tonnoir & Edwards, 1927: 827. Type species: *Trichoterga monticola* Tonnoir *in* Tonnoir & Edwards, 1927, orig. des.  
*monticola* Tonnoir *in* Tonnoir & Edwards, 1927: 827. NZ (NZ).  
 ssp. *incisurata* Edwards *in* Tonnoir & Edwards, 1927: 828 (*monticola* var.). NZ (NZ). N. stat.  
 ssp. *monticola* s.str. NZ (NZ).

### Unplaced species of Leiinae

- fulva* Walker, 1856*d*: 416 (*Leia*). Australia (Tas).

## Subfamily MANOTINAE

### Genus MANOTA Williston

- MANOTA Williston, 1896*b*: 260. Type species: *Manota defecta* Williston, 1896, mon.  
*hanulata* Colless, 1966: 656. Belau.  
*maorica* Edwards *in* Tonnoir & Edwards, 1927: 801. NZ (NZ).  
*pacifica* Edwards, 1928*c*: 30. Western Samoa.

## Subfamily MYCETOPHILINAE

### Tribe EXECHIINI

### Genus ALLODIA Winnertz

- ALLODIA Winnertz, 1863: 826. Type species: *Mycetophila ormaticollis* Meigen, 1818 [= *Mycetophila lugens* Wiedemann, 1817], des. Johannsen, 1909: 104.  
*antennata* Harrison, 1964: 304. NZ (Campbell I); NZ (Auckland Is).  
*brunnea* Harrison, 1964: 306. NZ (Campbell I).  
*sabroskyi* Colless, 1966: 659. Belau.

### Genus ANATELLA Winnertz

- ANATELLA Winnertz, 1863: 854. Type species: *Anatella gibba* Winnertz, 1863, des. Johannsen, 1909: 101.  
 Unidentified sp. — New Caledonia (New Caledonia).

**Genus BREVICORNU Marshall**

- BREVICORNU** Marshall, 1896b: 307. Type species: *Brevicornu flavum* Marshall, 1896, des. Tuomikoski, 1966a: 184.
- flavum* Marshall, 1896b: 307. NZ (NZ).
- fragile* Marshall, 1896b: 308. NZ (NZ).
- maculatum* Tonnoir in Tonnoir & Edwards, 1927: 834 (*Allodia*). NZ (NZ). **N. comb.**
- quadrisseta* Edwards in Tonnoir & Edwards, 1927: 835 (*Allodia*). NZ (NZ). **N. comb.**
- rufithorax* Tonnoir in Tonnoir & Edwards, 1927: 834 (*Allodia*). NZ (NZ). **N. comb.**

**Genus EXECHIA Winnertz**

- EXECHIA** Winnertz, 1863: 879. Type species: *Tipula fungorum* De Geer, 1776 [= *Mycetophila fusca* Meigen, 1804], des. Johannsen, 1909: 106.
- BRACHYDICRANIA* Skuse, 1888c: 1215. Type species: *Brachydicrania fumosa* Skuse, 1888, **pres. des.**
- abbreviata* Skuse, 1888c: 1219 (*Brachydicrania*). Australia (NSW). **N. comb.**
- biseta* Edwards in Tonnoir & Edwards, 1927: 837. NZ (NZ).
- fascipennis* Skuse, 1890d: 628 (*Brachydicrania*). Australia (NSW). **N. comb.**
- filata* Edwards in Tonnoir & Edwards, 1927: 836. NZ (NZ).
- fumosa* Skuse, 1888c: 1218 (*Brachydicrania*). Australia (NSW). **N. comb.**
- hiemalis* Marshall, 1896b: 300 (*Brachydicrania*). NZ (NZ); NZ (Auckland Is, Campbell I).
- howesi* Edwards in Tonnoir & Edwards, 1927: 836. NZ (NZ).
- lutacea* Edwards, 1928c: 31. Western Samoa.
- novaezelandiae* Tonnoir in Tonnoir & Edwards, 1927: 836. NZ (NZ).
- pictiventris* Skuse, 1888c: 1217 (*Brachydicrania*). Australia (NSW). **N. comb.**
- pullicauda* Skuse, 1888c: 1216 (*Brachydicrania*). Australia (NSW). **N. comb.**
- snyderi* Colless, 1966: 657. Bonin Is.
- thomsoni* Miller, 1918: 4. NZ (NZ).

**Genus SYNPLASTA Skuse**

- SYNPLASTA** Skuse, 1890d: 629. Type species: *Synplasta annuliventris* Skuse, 1890, mon.
- ALLODIOPSIS* Tuomikoski, 1966a: 171. Type species: *Rymosia rustica* Edwards, 1941, orig. des.
- annuliventris* Skuse, 1890d: 630. Australia (NSW).
- sydneyensis* Skuse, 1890d: 627 (*Dynatosoma*). Australia (NSW).

## Tribe MYCETOPHILINI

**Genus ASPIDIONIA Colless**

- ASPIDIONIA** Colless, 1966: 664. Type species: *Aspidionia palauensis* Colless, 1966, orig. des.
- palauensis* Colless, 1966: 664. Belau.

**Genus EPICYPTA Winnertz**

- EPICYPTA** Winnertz, 1863: 909. Type species: *Mycetophila scatophora* Perris, 1849, des. Johannsen, 1909: 110.
- DELOPSIS* Skuse, 1890d: 623. Type species: *Delopsis flavipennis* Skuse, 1890, mon.
- angusticollaris* Edwards, 1929h: 74 (*Delopsis*). Vanuatu; Philippines.
- boninensis* Colless, 1966: 664. Bonin Is.
- buxtoni* Edwards, 1928c: 32 (*Delopsis*). Western Samoa; Indonesia (Sumatra).
- flavipennis* Skuse, 1890d: 624 (*Delopsis*). Australia (NSW). **N. comb.**
- greenwoodi* Edwards, 1924f: 570 (*Delopsis*). Fiji. **N. comb.**
- palauensis* Colless, 1966: 662. Belau.

*palauensis* Colless, 1966: 662. Belau: <sup>Palau</sup>  
*scutellaris* Edwards, 1928c: 33 (*Delopsis*). Western Samoa. **N. comb.**

## Genus MYCETOPHILA Meigen

MYCETOPHILA Meigen, 1803: 263. Type species: *Tipula agarici* Villers, 1789, des. Johannsen, 1909: 110.

- aequalis* Walker, 1856d: 415. Australia (Tas).
- campbellensis* Harrison, 1964: 307. NZ (Campbell I); NZ (Auckland Is).
- clara* Tonnoir in Tonnoir & Edwards, 1927: 855. NZ (NZ).
- colorata* Tonnoir in Tonnoir & Edwards, 1927: 854. NZ (NZ).
- concolorata* Tonnoir in Tonnoir & Edwards, 1927: 845. NZ (NZ).
- consobrina* Tonnoir in Tonnoir & Edwards, 1927: 845. NZ (NZ).
- crassitarsis* Edwards in Tonnoir & Edwards, 1927: 853. NZ (NZ).
- curtisi* Edwards in Tonnoir & Edwards, 1927: 841. NZ (NZ).
- diffusa* Tonnoir in Tonnoir & Edwards, 1927: 849. NZ (NZ).
- dilatata* Tonnoir in Tonnoir & Edwards, 1927: 854. NZ (NZ).
- elegans* Tonnoir in Tonnoir & Edwards, 1927: 842. NZ (NZ).
- elongata* Tonnoir in Tonnoir & Edwards, 1927: 845. NZ (NZ).
- fagi* Marshall, 1896b: 303. NZ (NZ).
  - variabilis* Marshall, 1896b: 304. NZ (NZ).
  - robusta* Marshall, 1896b: 305. NZ (NZ).
- filicornis* Tonnoir in Tonnoir & Edwards, 1927: 857. NZ (NZ).
- fumosa* Tonnoir in Tonnoir & Edwards, 1927: 852. NZ (NZ); NZ (Auckland Is).
- furtiva* Tonnoir in Tonnoir & Edwards, 1927: 857. NZ (NZ).
- grandis* Tonnoir in Tonnoir & Edwards, 1927: 851. NZ (NZ).
- griseofusca* Tonnoir in Tonnoir & Edwards, 1927: 852. NZ (NZ).
  - ssp. *griseofusca* s.str. NZ (NZ).
  - ssp. *nigriclava* Tonnoir in Tonnoir & Edwards, 1927: 852 (*griseofusca* var.). NZ (NZ). **N. stat.**
- grisescens* Edwards in Tonnoir & Edwards, 1927: 850. NZ (NZ).
- harrisi* Edwards in Tonnoir & Edwards, 1927: 859. NZ (NZ).
- impunctata* Edwards in Tonnoir & Edwards, 1927: 856. NZ (NZ).
- integra* Tonnoir in Tonnoir & Edwards, 1927: 858. NZ (NZ).
- intermedia* Edwards in Tonnoir & Edwards, 1927: 860. NZ (NZ).
- latifascia* Edwards in Tonnoir & Edwards, 1927: 843. NZ (NZ).
- lomodensis* Edwards in Tonnoir & Edwards, 1927: 850. NZ (NZ).
- luteolateralis* Edwards in Tonnoir & Edwards, 1927: 853. NZ (NZ).
- marginepunctata* Tonnoir in Tonnoir & Edwards, 1927: 847. NZ (NZ); NZ (Auckland Is).
  - ssp. *marginepunctata* s.str. NZ (NZ); NZ (Auckland Is).
  - ssp. *rotundipennis* Tonnoir in Tonnoir & Edwards, 1927: 847 (*marginepunctata* var.). NZ (NZ). **N. stat.**
  - ssp. *ruapehensis* Tonnoir in Tonnoir & Edwards, 1927: 847 (*marginepunctata* var.). NZ (NZ). **N. stat.**
- marshalli* Enderlein, 1910a: 174 (n. n. for *maculata* Marshall). NZ (NZ).
  - maculata* Marshall, 1896b: 306. NZ (NZ). [Preocc. Macquart, 1834.]
- media* Tonnoir in Tonnoir & Edwards, 1927: 858. NZ (NZ).
- minima* Edwards in Tonnoir & Edwards, 1927: 846. NZ (NZ).
- nigricans* Tonnoir in Tonnoir & Edwards, 1927: 850. NZ (NZ).
- nigripalpis* Edwards in Tonnoir & Edwards, 1927: 848. NZ (NZ).
- nigriventris* Skuse, 1890d: 622. Australia (NSW).
- nitens* Tonnoir in Tonnoir & Edwards, 1927: 847. NZ (NZ).
- nitidula* Tonnoir in Tonnoir & Edwards, 1927: 848. NZ (NZ).
- ornatissima* Tonnoir in Tonnoir & Edwards, 1927: 841. NZ (NZ).
- phyllura* Edwards in Tonnoir & Edwards, 1927: 849. NZ (NZ).



- propria* Skuse, 1888c: 1213. Australia (NSW).  
*pseudommarshalli* Tonnoir in Tonnoir & Edwards, 1927: 846. NZ (NZ).  
*solitaria* Tonnoir in Tonnoir & Edwards, 1927: 855. NZ (NZ).  
*spinigera* Tonnoir in Tonnoir & Edwards, 1927: 859. NZ (NZ).  
*submarshalli* Tonnoir in Tonnoir & Edwards, 1927: 846. NZ (NZ).  
*subnitens* Edwards in Tonnoir & Edwards, 1927: 848. NZ (NZ).  
*subspinigera* Tonnoir in Tonnoir & Edwards, 1927: 851. NZ (NZ).  
*subtenebrosa* Tonnoir in Tonnoir & Edwards, 1927: 859. NZ (NZ).  
*subtillis* Tonnoir in Tonnoir & Edwards, 1927: 849. NZ (NZ).  
*sylvatica* Marshall, 1896b: 301. NZ (NZ).  
*tapleyi* Edwards in Tonnoir & Edwards, 1927: 854. NZ (NZ).  
*tenebrosa* Edwards in Tonnoir & Edwards, 1927: 860. NZ (NZ).  
*tonnoiri* Matile, n. n. NZ (NZ).  
*similis* Tonnoir in Tonnoir & Edwards, 1927: 842. NZ (NZ). [Preocc. Santos Abreu, 1920.]  
*trispinosa* Tonnoir in Tonnoir & Edwards, 1927: 844. NZ (NZ).  
*unispinosa* Tonnoir in Tonnoir & Edwards, 1927: 856. NZ (NZ).  
*virgata* Tonnoir in Tonnoir & Edwards, 1927: 843. NZ (NZ).  
*viridis* Edwards in Tonnoir & Edwards, 1927: 852. NZ (NZ).  
*vulgaris* Tonnoir in Tonnoir & Edwards, 1927: 844. NZ (NZ).

#### Genus PHRONIA Winnertz

- PHRONIA** Winnertz, 1863: 857. Type species: *Phronia rustica* Winnertz, 1863 [= *Mycetophila exigua* Zetterstedt, 1852], des. Johannsen, 1909: 96.  
*boninensis* Colless, 1966: 660. Bonin Is.

#### Genus PLATUROCYPTA Enderlein

- PLATUROCYPTA** Enderlein, 1910b: 76. Type species: *Platurocypta limbatifemur* Enderlein, 1910, orig. des.  
*dilatata* Tonnoir in Tonnoir & Edwards, 1927: 861 (*Epicyptha*). NZ (NZ). **N. comb.**  
*immaculata* Tonnoir in Tonnoir & Edwards, 1927: 860 (*Epicyptha*). NZ (NZ). **N. comb.**

#### Genus PSEUDALYSIINIA Tonnoir

- PSEUDALYSIINIA** Tonnoir, 1929b: 608. Type species: *Pseudalysiinia mimicans* Tonnoir, 1929, orig. des.  
*mimicans* Tonnoir, 1929b: 609. Australia (Tas).

#### Genus SCEPTONIA Winnertz

- SCEPTONIA** Winnertz, 1863: 907. Type species: *Mycetophila nigra* Meigen, 1804, des. Johannsen, 1909: 113.  
*ornatithorax* Skuse, 1890d: 621. Australia (NSW).

#### Genus TRICHONTA Winnertz

- TRICHONTA** Winnertz, 1863: 847. Type species: *Mycetophila melanura* Staeger, 1840, des. Johannsen, 1909: 94.  
*illaetabilis* Skuse, 1888c: 1210. Australia (NSW).  
*vegeta* Skuse, 1888c: 1209. Australia (NSW).

## Genus ZYGOMYIA Winnertz

ZYGOMYIA Winnertz, 1863: 901. Type species: *Mycetophila vara* Staeger, 1840, des. Johannsen, 1909: 112.

**acuta** Tonnoir *in* Tonnoir & Edwards, 1927: 870. NZ (NZ).

**albinotata** Tonnoir *in* Tonnoir & Edwards, 1927: 870. NZ (NZ).

**apicalis** Tonnoir *in* Tonnoir & Edwards, 1927: 866. NZ (NZ).

**bifasciola** Matile, n. n. NZ (NZ).

*bifasciata* Tonnoir *in* Tonnoir & Edwards, 1927: 863. NZ (NZ). [Preocc. Garrett, 1925.]

→ **bivittata** Tonnoir *in* Tonnoir & Edwards, 1927: 864. NZ (NZ).

**brunnea** Tonnoir *in* Tonnoir & Edwards, 1927: 866. NZ (NZ).

**costata** Tonnoir *in* Tonnoir & Edwards, 1927: 865. NZ (NZ).

**crassicauda** Tonnoir *in* Tonnoir & Edwards, 1927: 867. NZ (NZ).

**crassipyga** Tonnoir *in* Tonnoir & Edwards, 1927: 868. NZ (NZ).

**distincta** Tonnoir *in* Tonnoir & Edwards, 1927: 872. NZ (NZ).

**eluta** Edwards *in* Tonnoir & Edwards, 1927: 871. NZ (NZ).

**flavicoxa** Marshall, 1896b: 297. NZ (NZ).

**griscens** Tonnoir *in* Tonnoir & Edwards, 1927: 865. NZ (NZ).

**guttata** Tonnoir *in* Tonnoir & Edwards, 1927: 868. NZ (NZ).

**humeralis** Tonnoir *in* Tonnoir & Edwards, 1927: 869. NZ (NZ).

**immaculata** Tonnoir *in* Tonnoir & Edwards, 1927: 863. NZ (NZ).

**longicauda** Tonnoir *in* Tonnoir & Edwards, 1927: 867. NZ (NZ).

**marginata** Tonnoir *in* Tonnoir & Edwards, 1927: 869. NZ (NZ); NZ (Auckland Is).

**nigrita** Tonnoir *in* Tonnoir & Edwards, 1927: 871. NZ (NZ).

**nigriventris** Tonnoir *in* Tonnoir & Edwards, 1927: 866. NZ (NZ).

**nigrohalterata** Tonnoir *in* Tonnoir & Edwards, 1927: 865. NZ (NZ).

**obsoleta** Tonnoir *in* Tonnoir & Edwards, 1927: 864. NZ (NZ).

**penicillata** Edwards *in* Tonnoir & Edwards, 1927: 872. NZ (NZ).

**ruficollis** Tonnoir *in* Tonnoir & Edwards, 1927: 866. NZ (NZ).

**rufithorax** Tonnoir *in* Tonnoir & Edwards, 1927: 867. NZ (NZ).

**similis** Tonnoir *in* Tonnoir & Edwards, 1927: 863. NZ (NZ); NZ (Campbell I).

**submarginata** Harrison, 1955: 212. NZ (Campbell I); NZ (NZ).

**trifasciata** Tonnoir *in* Tonnoir & Edwards, 1927: 871. NZ (NZ); NZ (Auckland Is).

**unispinosa** Tonnoir *in* Tonnoir & Edwards, 1927: 870. NZ (NZ).

**varipes** Edwards *in* Tonnoir & Edwards, 1927: 868. NZ (NZ).

## Genus ZYGOPHRONIA Edwards

ZYGOPHRONIA Edwards, 1928c: 31. Type species: *Zygophronia pusilla* Edwards, 1928, mon. *pusilla* Edwards, 1928c: 31. Western Samoa.