

Superfamily SPHAEROCEROIDEA

94. Family HELEOMYZIDAE

By Brian R. Pitkin

There are over 500 described species of Heleomyzidae in about 65 genera and 22 tribes distributed throughout the world; the greatest number occur in the Holarctic Region (McAlpine 1985*b*). All 80 species in 22 genera and 10 tribes listed here are from Australia, New Zealand, and Papua New Guinea.

Little is known of the biology of the Australasian species. Adults of *Diplogeomyza* and related genera (McAlpine 1967) are frequently encountered in wet forest country, some being most prevalent in mountainous areas. Adults of *Borboroides* and *Heleomicra* are attracted to carcasses and feces. *Austroleria extensa* has been reared from the fungus *Boletus granulatus* (Polyporaceae).

The larvae of the Holarctic Suillinae occur principally in fungi, as do those of *Tapeigaster*, whereas larvae of *Cairnsimyia* live in borer tunnels in trees.

The Borboropsidae, Chiropteromyzidae, Cnemospathidae, Heteromyzidae, Notomyzidae, Rhinotoridae, and Trixoscelididae have been recognized by some recent authors as distinct from the Heleomyzidae. McAlpine (1985*b*), however, included all of them as tribes within the Heleomyzidae [Heteromyzidae (= Heleomyzini)].

Refs.: McAlpine (1967, keys *Diplogeomyza*, *Austroleria* spp.; 1968, key *Cairnsimyia* spp., larval descr.; 1984, key *Pseudoleria* spp.; 1985*b*, key Australasian gen.), McAlpine & Kent (1982, key *Tapeigaster* spp., larval descr.).

Tribe ALLOPHYLOPSINI

Genus ALLOPHYLINA Tonnoir & Malloch

ALLOPHYLINA Tonnoir & Malloch, 1927: 87. Type species: *Allophylina albitarsis* Tonnoir & Malloch, 1927, orig. des.

albitarsis Tonnoir & Malloch, 1927: 88. NZ (NZ).

Genus ALLOPHYLOPSIS Lamb

ALLOPHYLOPSIS Lamb, 1909: 142. Type species: *Allophylopsis punctata* Lamb, 1909 [= *Heteromyza laquei* Hutton, 1902], mon.

Subgenus ALLOPHYLELLA Tonnoir & Malloch

ALLOPHYLELLA Tonnoir & Malloch, 1927: 90. Type species: *Allophylopsis philpotti* Tonnoir & Malloch, 1927, mon.

philpotti Tonnoir & Malloch, 1927: 91. NZ (NZ).

Subgenus ALLOPHYLLATA Harrison

ALLOPHYLLATA Harrison, 1959: 138. Type species: *Allophylopsis inconspicua* Tonnoir & Malloch, 1927, orig. des.

inconspicua Tonnoir & Malloch, 1927: 95. NZ (NZ).

Subgenus ALLOPHYLOPSIS Lamb

- ALLOPHYLOPSIS** Lamb, 1909: 142 (as gen.). Type species: *Allophylopsis punctata* Lamb, 1909 [= *Heteromyza laquei* Hutton, 1902], mon.
- chathamensis** Tonnoir & Malloch, 1927: 94. NZ (Chatham Is).
- distincta** Tonnoir & Malloch, 1927: 98. NZ (NZ).
- fulva** Hutton, 1901: 82 (*Leria*). NZ (NZ).
- fuscipennis** Tonnoir & Malloch, 1927: 97. NZ (NZ).
- hudsoni** Hutton, 1901: 8 (*Helomyza*). NZ (NZ).
- proxima* Tonnoir & Malloch, 1927: 96. NZ (NZ).
- laquei** Hutton, 1902a: 173 (*Heteromyza*). NZ (NZ).
- punctata* Lamb, 1909: 143. NZ (NZ).
- minuta** Tonnoir & Malloch, 1927: 95. NZ (NZ).
- obscura** Tonnoir & Malloch, 1927: 99. NZ (NZ).

Subgenus HUTTONOMYIA Malloch

- HUTTONOMYIA** Malloch, 1922c: 227 (as gen.). Type species: *Helomyza scutellata* Hutton, 1901, orig. des.
- PARAPHYLOPSIS** Tonnoir & Malloch, 1927: 93. Type species: *Helomyza scutellata* Hutton, 1901, des. Harrison, 1959: 132.
- bivittata** Harrison, 1959: 135. NZ (NZ).
- scutellata** Hutton, 1901: 81 (*Helomyza*). NZ (NZ).
- subscutellata** Tonnoir & Malloch, 1927: 93. NZ (NZ).

Subgenus PHILPOTTOMYIA Tonnoir & Malloch

- PHILPOTTOMYIA** Tonnoir & Malloch, 1927: 91. Type species: *Allophylopsis lineata* Tonnoir & Malloch, 1927, orig. des.
- lineata** Tonnoir & Malloch, 1927: 92. NZ (NZ).
- rufithorax** Tonnoir & Malloch, 1927: 92. NZ (NZ).

Genus AUSTROLERIA McAlpine

- AUSTROLERIA** McAlpine, 1967: 80. Type species: *Austroleria extensa* McAlpine, 1967, orig. des.
- extensa** McAlpine, 1967: 80. Australia (NSW); Australia (ACT, SA, Tas, Vic).
- truncata** McAlpine, 1967: 81. Australia (NSW); Australia (Tas, Vic).

Genus DIPLOGEOMYZA Hendel

- DIPLOGEOMYZA** Hendel, 1917: 38. Type species: *Diplogeomyza diaphora* Hendel, 1917, orig. des.
- annularis** McAlpine, 1967: 96. Australia (NSW); Australia (Vic).
- conformis** McAlpine, 1967: 88. Australia (ACT); Australia (NSW, Tas, Vic).
- diaphora** Hendel, 1917: 38. Australia (Vic); Australia (NSW, Qld, SA, Tas).
- flavipalpis** McAlpine, 1967: 93. Australia (NSW).
- hardyi** McAlpine, 1967: 90. Australia (NSW); Australia (ACT, SA, Vic).
- ssp. **hardyi** s. str. Australia (NSW); Australia (ACT, SA, Vic).
- ssp. **tasmanica** McAlpine, 1967: 92. Australia (Tas).
- immaculata** McAlpine, 1967: 89. Australia (Qld).
- incisa** McAlpine, 1967: 85. Australia (Vic).
- maculipennis** Malloch, 1926d: 552 (*Huttonomyia*). Australia (NSW); widesp. Australia (excl. NT).
- media** McAlpine, 1967: 100. Australia (NSW); Australia (Qld, Vic).
- pectinervis** McAlpine, 1967: 104. Australia (NSW); Australia (Qld).
- signata** McAlpine, 1967: 99. Australia (NSW); Australia (Qld).
- spinosa** McAlpine, 1967: 98. Australia (NSW); Australia (Qld, Vic).
- tridens** McAlpine, 1967: 94. Australia (Qld); Australia (NSW).

victoriae McAlpine, 1967: 96. Australia (Vic).

wirthi McAlpine, 1967: 86. Australia (NSW); Australia (Tas, Vic).

Genus LERIOPSIS McAlpine

LERIOPSIS McAlpine, 1967: 76. Type species: *Leriopsis montana* McAlpine, 1967, orig. des. *montana* McAlpine, 1967: 76. Australia (Tas); Australia (ACT, NSW, Vic).

Genus TRIXOLERIA McAlpine

TRIXOLERIA McAlpine, 1967: 77. Type species: *Trixoleria maculata* McAlpine, 1967, orig. des. *maculata* McAlpine, 1967: 78. Australia (NSW); Australia (ACT, Tas, Vic, WA).

Tribe BORBOROIDINI

Genus BORBOROIDES Malloch

BORBOROIDES Malloch, 1925f: 85. Type species: *Borboroides atra* Malloch, 1925, orig. des. *atra* Malloch, 1925f: 85. Australia (NSW); Australia (Qld, Tas, Vic, WA).

Genus HELEOMICRA McAlpine

HELEOMICRA McAlpine, 1985b: 210. Type species: *Heleomicra collessi* McAlpine, 1985, orig. des. *collessi* McAlpine, 1985b: 210. Australia (NSW).

Tribe CNEMOSPATHIDINI

Genus PROSOPANTRUM Enderlein

PROSOPANTRUM Enderlein, 1912e: 135. Type species: *Prosopantrum austrinum* Enderlein, 1912 [= *Agromyza diadematum* Bigot, 1888], orig. des.

ACROSTICHALIA Tonnoir & Malloch, 1927: 86. Type species: *Acrostichalia flavifrons* Tonnoir & Malloch, 1927, orig. des.

CNEMOSPATHIS Enderlein, 1938b: 655. Type species: *Cnemospathis baekstroemi* Enderlein, 1938, orig. des.

flavifrons Tonnoir & Malloch, 1927: 87 (*Acrostichalia*). NZ (NZ); Australia (Tas); S. Am, S Africa [introduced].

baekstroemi Enderlein, 1938b: 656 (*Cnemospathis*). Chile.

shoenemanni Enderlein, 1938b: 657 (*Cnemospathis*). Chile.

Tribe DIACIINI

Genus AMPHIDYSIS McAlpine

AMPHIDYSIS McAlpine, 1985b: 208. Type species: *Amphidysis hesperia* McAlpine, 1985, orig. des. *hesperia* McAlpine, 1985b: 208. Australia (WA).

Tribe FENWICKIINI

Genus ANEURIA Malloch

ANEURIA Malloch, 1930m: 340. Type species: *Aneuria bipunctata* Malloch, 1930, des. Harrison, 1959: 162. [*Aneuria elegans* Malloch, 1930, *nomen nudum*, was originally designated as type species.] *angusta* Harrison, 1959: 163. NZ (NZ).

- bipunctata** Malloch, 1930*m*: 341. NZ (NZ).
imitatrix Malloch, 1930*m*: 340. NZ (NZ).
sexpunctata Malloch, 1930*m*: 342. NZ (NZ).
tripunctata Malloch, 1930*m*: 342. NZ (NZ).

Nomen nudum in Aneuria Malloch

- elegans* Malloch, 1930*m*: 340.

Genus FENWICKIA Malloch

- FENWICKIA** Malloch, 1930*m*: 336. Type species: *Fenwickia hirsuta* Malloch, 1930, orig. des.
affinis Harrison, 1959: 160. NZ (NZ).
caudata Harrison, 1959: 155. NZ (NZ).
claripennis Malloch, 1930*m*: 337. NZ (NZ).
hirsuta Malloch, 1930*m*: 338. NZ (NZ).
nuda Malloch, 1930*m*: 338. NZ (NZ).
similis Malloch, 1930*m*: 338. NZ (NZ).

Genus XENEURA Malloch

- XENEURA** Malloch, 1930*m*: 339. Type species: *Milichia picata* Hutton, 1902, orig. des.
picata Hutton, 1902*b*: 195 (*Milichia*). NZ (NZ).

Tribe HELEOMYZINI

Genus NEOECOTHEA Peterson & Gill

- NEOECOTHEA** Peterson & Gill, 1982: 219. Type species: *Helomyza fenestralis* Fallén, 1820, orig. des.
OECOTHEA, authors, not Haliday, 1837, misid.
fenestralis Fallén, 1820*a*: 5 (*Helomyza*). Sweden; Australia (NSW, Tas) [introduced], NZ (NZ) [introduced]; Europe, Asia, N. & S. Am.

Genus PSEUDOLERIA Garrett

- PSEUDOLERIA** Garrett, 1921: 128. Type species: *Blepharoptera pectinata* Loew, 1872, orig. des.
pectinata Loew, 1872*a*: 99 [1872*b*: 275] (*Blepharoptera*). USA; Australia (ACT, NSW, Vic) [introduced], ?NZ (NZ) [introduced]; ?Chile, South Africa, N. Am.
pectinerata Garrett, 1921: 128. Canada.
placata Hutton, 1901: 82 (*Leria*). NZ (NZ); Australia (NSW, Vic) [introduced], NZ (Chatham Is); Canada, USA.
crassata Garrett, 1925: 3. Canada & USA.

Genus TEPHROCHLAMYS Loew

- TEPHROCHLAMYS** Loew, 1862*e*: 72. Type species: *Helomyza rufiventris* Meigen, 1830, des. Coquillett, 1910: 613.
rufiventris Meigen, 1830: 58 (*Helomyza*). Not given [Central Europe]; NZ (NZ) [introduced]; Holarctic Reg.

Tribe PENTACHAETINI

Genus PENTACHAETA McAlpine

- PENTACHAETA** McAlpine, 1985*b*: 212. Type species: *Pentachaeta physopus* McAlpine, 1985, orig. des.

physopus McAlpine, 1985*b*: 213. Australia (NSW).

Tribe RHINOTORINI

Genus CAIRNSIMYIA Malloch

CAIRNSIMYIA Malloch, 1931*e*: 294. Type species: *Cairnsimyia cavifrons* Malloch, 1931, orig. des.
aroana McAlpine, 1968: 275. PNG (PNG); Australia (Qld).
cavifrons Malloch, 1931*e*: 294. Australia (Qld); Australia (NSW).
crosskeyi McAlpine, 1968: 274. PNG (PNG).
excavata McAlpine, 1968: 271. Australia (Qld); Australia (NSW).
inscripta Walker, 1865*b*: 120 (*Platystoma*). "New Guinea" [= Indonesia (Irian Jaya)]; PNG (PNG).
robusta Walker, 1853: 403 (*Heteromyza*). Australia (Tas); Australia (NSW, Qld, SA, Vic).
sydneyensis McAlpine, 1968: 270. Australia (NSW).
uniseta McAlpine, 1968: 272. Australia (NSW); Australia (Qld, Vic).
verticalis McAlpine, 1968: 272. Australia (Qld); Australia (NSW).

Genus ZENTULA McAlpine

ZENTULA McAlpine, 1985*b*: 212. Type species: *Zentula vittata* McAlpine, 1985, orig. des.
vittata McAlpine, 1985*b*: 212. Australia (ACT); Australia (NSW).

Tribe TAPEIGASTRINI

Genus OLLIX McAlpine

OLLIX McAlpine, 1985*b*: 206. Type species: *Ollix cogani* McAlpine, 1985, orig. des.
cogani McAlpine, 1985*b*: 207. Australia (WA).

Genus TAPEIGASTER Macquart

TAPEIGASTER Macquart, 1847*a*: 86 [1847*b*: 102]. Type species: *Tapeigaster annulipes* Macquart, 1847, orig. des.
SCIOMYZOPTERA Hendel, 1917: 46. Type species: *Sciomyzoptera annulata* Hendel, 1917, orig. des.
annulata Hendel, 1917: 47 (*Sciomyzoptera*). "Australia"; Australia (NSW, Qld).
fulva Malloch, 1926*d*: 553, Australia (NSW).
annulipes Macquart, 1847*a*: 87 [1847*b*: 103]. "Nouvelle-Hollande"; Australia (NSW, Qld, SA, Tas, Vic).
cingulipes Walker, 1858*a*: 220 (*Dryomyza*). Australia (NSW).
argyrosipila Bezzi, 1923*a*: 77. Australia (NSW); Australia (Qld, SA, Vic).
brunneifrons Malloch, 1927*b*: 16. Australia (NSW); Australia (ACT, Tas, Vic).
vernalis Paramonov, 1955*f*: 457. Australia (NSW).
cinctipes Walker, 1853: 404 (*Heteromyza*). Australia (Tas); Australia (ACT, NSW, Vic, WA).
bella Paramonov, 1955*f*: 454. Australia (ACT & Tas & Vic & WA).
digitata McAlpine & Kent, 1982: 45. Australia (NSW); Australia (ACT, SA, Tas, Vic).
luteipennis Bezzi, 1923*a*: 76. Australia (NSW); Australia (Qld).
taylori Malloch, 1935*d*: 94. Australia (NSW).
nigricornis Macquart, 1851: 277(304) (*Sciomyza*). Australia (Tas); Australia (NSW, Qld, SA, Vic, WA).
marginifrons Bezzi, 1923*a*: 74. Australia (NSW).
paramonovi McAlpine & Kent, 1982: 44. Australia (NSW); Australia (ACT, SA, Tas, Vic).
pulverea McAlpine & Kent, 1982: 50. Australia (NSW); Australia (Qld, Vic).
subglabra McAlpine & Kent, 1982: 52. Australia (NSW); Australia (ACT, Vic).

Tribe WATERHOUSEIINI

Genus WATERHOUSEIA Malloch

·WATERHOUSEIA Malloch, 1936b: 260. Type species: *Waterhouseia cyclops* Malloch, 1936, orig. des. *cyclops* Malloch, 1936b: 261. Australia (NSW).