

Family PSYCHODIDAE

The family Psychodidae, or moth flies, are a cosmopolitan family often associated with moist or sylvan habitats. Habits of the adults of extant forms vary. Some are blood feeders such as the phlebotomines and sycoracines. Most are nocturnal and can be found resting in shaded places in the daylight hours. Larvae of most genera are found in moist or semiaquatic conditions, though some phlebotomines are known to breed in soil in semi-desert areas.

The fossil taxa of psychodids are primarily of Tertiary origin, although *Eopericoma* Kalugina was described from the Jurassic deposits of Siberia (Kalugina & Kovalev, 1985). Other records of the family exist from the Cretaceous. The fossil evidence suggests that the family was well diversified by the Tertiary. Lambrecht (1980) estimated that the family originated as long ago as the Permian/Triassic boundary.

In addition to the determined forms listed below, Schumann & Wendt (1989: 41) recorded undetermined material of this family from the Miocene Bitterfeld amber of Germany, Seeman (1935) recorded a pupa from the Upper Miocene of Germany, and Soom (1984) recorded the family from the Paleocene amber of Switzerland.

Edwards (1932: 6) and Stone (1981) transferred to the Psychodidae a species originally described by Cockerell in the mosquito genus *Culex*. It is listed here under unplaced species until examination of the type specimen can be conducted to ascertain its generic placement.

Ref.: Fairchild (1951, nomenclature of fossil genera); Hennig (1972, review of fossil taxa).

Genus BRUNETTIA Annandale

***BRUNETTIA** Annandale, 1910: 141. Type species: *Diplonema superstes* Annandale, 1908, by subsequent designation of Brunetti (1911: 310).
hurdi Quate, 1961: 950. NT: Mexico (Oligocene/Miocene) [A].

Genus EATONISCA Meunier

EATONISCA Meunier, 1905c: 253. Type species: *Eatonisca tertaria* Meunier, 1905, by monotypy.
tertiaria Meunier, 1905c: 253. PA: Baltic Region (Eocene/Oligocene) [A].

Genus EOPERICOMA Kalugina

EOPERICOMA Kalugina in Kalugina & Kovalev, 1985: 46. Type species: *Eopericoma zherichini* Kalugina, 1985, by original designation.

zherichini Kalugina in Kalugina & Kovalev, 1985: 46. PA: Russia (Siberia) (Middle Jurassic) [C].

Genus EOPHLEBOTOMUS Cockerell

EOPHLEBOTOMUS Cockerell, 1920c: 212. Type species: *Eophlebotomus connectens* Cockerell, 1920, by original designation.

EUPHLEBOTOMUS. Incorrect subsequent spelling of *Eophlebotomus* (Enderlein, 1937: 109).

connectens Cockerell, 1920c: 212. OR: Myanmar (Miocene) [A].

Genus LUTZOMYIA França

***LUTZIA** França, 1920: 234 (as *Phlebotomus* subgenus). Type species: *Phlebotomus longipalpis* Lutz & Neiva, 1912, by original designation. [Preoccupied by Theobald, 1903.]

***LUTZOMYIA** França, 1924: 23 (new replacement name for *Lutzia* França). Type species: *Phlebotomus longipalpis* Lutz & Neiva, 1912, automatic.

***FRANSAIA** Dyar & Nunez Tovar, 1927: 155 (new replacement name for *Lutzia* França). Type species: *Phlebotomus longipalpis* Lutz & Neiva, 1912, automatic.

***LUTZIOLA** Strand, 1932: 195 (new replacement name for *Lutzia* França). Type species: *Phlebotomus longipalpis* Lutz & Neiva, 1912, automatic.

paterna Quate, 1963: 114 (*Phlebotomus*). NT: Mexico (Oligocene/Miocene) [A].

Genus MESOPSYCHODA Brauer, Redtenbacher & Ganglbauer

MESOPSYCHODA Brauer *et al.*, 1889: 17. Type species: *Mesopsychoda dasyptera* Brauer *et al.*, 1889, by monotypy.

dasyptera Brauer *et al.*, 1889: 17. PA: Russia (Siberia) (Upper Jurassic) [C].

Genus NEMAPALPUS Macquart

***NEMAPALPUS** Macquart, 1838: 85 (81) [1839b: 102 (as "Nemopalpus")].

Type species: *Nemapalpus flavus* Macquart, 1838, by monotypy.

NYGMATODES Loew, 1845: 9, 10. Unavailable name; proposed in synonymy; not made available before 1961.

PALAEOSYCORAX Meunier, 1905b: 50. Type species: *Palaeosycorax tertiae* Meunier, 1905, by monotypy.

NEMOPALPUS, error for *Nemapalpus*.

hennigianus Schlüter, 1978a: 243. NT: Dominican Republic (Oligocene/Miocene) [A].

molophilinus Edwards, 1921b: 437 (*Palaeosycorax*). PA: Baltic Region (Eocene/Oligocene) [A].

tertiariae Meunier, 1905b: 50 (*Palaeosycorax*). PA: Baltic Region (Eocene/Oligocene) [A].

Genus PERICOMA Walker

***PERICOMA** Haliday in Walker, 1856: 256. Type species: *Trichoptera trifasciata* Meigen, 1804, by subsequent designation of Coquillett (1910: 587).

formosa Meunier, 1905c: 243. PA: Baltic Region (Eocene/Oligocene) [A].

minuta Meunier, 1919: 146. PA: Germany (Oligocene) [C].

provincialis Ponomarenko & Schultz, 1988: 34. *Nomen nudum*.

speciosa Meunier, 1905c: 244. PA: Baltic Region (Eocene/Oligocene) [A].

Genus PHILOSEPEDON Eaton

***PHILOSEPEDON** Eaton, 1904: 57. Type species: *Psychoda humeralis* Meigen, 1818, by original designation.

labeula Quate, 1963: 116. NT: Mexico (Oligocene/Miocene) [A].

mexicana Quate, 1963: 114. NT: Mexico (Oligocene/Miocene) [A].

Genus PHLEBOTOMIELLA Meunier

PHLEBOTOMIELLA Meunier, 1906b: 103. Type species: *Phlebotomus tipuliformis* Meunier, 1905, by monotypy.

tipuliformis Meunier, 1905c: 254 (*Phlebotomus*). PA: Baltic Region (Eocene/Oligocene) [A].

Genus PHLEBOTOMITES Hennig

PHLEBOTOMITES Hennig, 1972: 39. Type species: *Phlebotomites brevifilis* Hennig, 1972, by original designation.

brevifilis Hennig, 1972: 40. PA: Lebanon (Lower Cretaceous) [A].

longifilis Hennig, 1972: 40. PA: Lebanon (Lower Cretaceous) [A].

Genus PHLEBOTOMUS Rondani & Berté

FLEBOTOMUS Rondani & Berté in Rondani, 1840a: 12. Invalid original spelling of *Phlebotomus* [See I.C.Z.N. (1954b: 201).]

***PHLEBOTOMUS** Rondani & Berté in Rondani, 1840a: 12 (as *Flebotomus*) [emended spelling fixed by I.C.Z.N. (1954b: 199).] Type species: *Bibio papatasi* Scopoli, 1786, by monotypy.

PHILAEMATUS Loew, 1845: 8. Type species: *Philaematus pungens* Loew, 1845, by monotypy.

magnificus Meunier, 1905c: 238. *Nomen nudum*.

pungens Loew, 1845: 8 (*Philaematus*). OR: "Ostindische" (Holocene) [K].

Genus POSTHON Loew

POSTHON Loew, 1844: 117. *Nomen nudum*.

POSTHON Loew, 1845: 9, 10. Type species: *Posthon gracilis* Loew, 1850, by subsequent monotypy in Loew (1850b: 31).

gracilis Loew, 1850b: 31. PA: Baltic Region (Eocene/Oligocene) [A].

Genus PSYCHODA Latreille

***PSYCHODA** Latreille, 1797: 152. Type species: *Tipula phalaenoides*

attenuata Keilbach, 1982: 357. *Nomen nudum*.

bulbifera Meunier, 1899e: 175. PA: Baltic Region (Eocene/Oligocene) [A].

eocenica Meunier, 1905c: 246. PA: Baltic Region (Eocene/Oligocene) [A].

leucospila Cockerell, 1921c: 466. PA: UK (England) (Eocene/Oligocene) [C].

oxyptera Loew, 1850b: 31. PA: Baltic Region (Eocene/Oligocene) [A].

primaeva Cockerell, 1915c: 493. PA: UK (England) (Eocene/Oligocene) [C].

usitata Quate, 1963: 114. NT: Mexico (Oligocene/Miocene) [A].

Unidentified sp.—PA: Japan (Pleistocene) [K] (Saigusa, 1974: 423).

Genus SERGENTOMYIA França & Parrot

- ***NEWSTEADIA** França, 1919: 148. Type species: *Phlebotomus minutus* Rondani, 1843 (as “*Hebotomus minutus*”), by subsequent designation of França (1920: 234). [Preoccupied by Green, 1902.]
- ***SERGENTOMYIA** França & Parrot, 1920: (new replacement name for *Newsteadia* França). Type species: *Phlebotomus minutus* Rondani, 1843, automatic.
- succini** Stuckenberg, 1975: 456 (*Phlebotomus*). PA: Baltic Region (Eocene/Oligocene)[A] [error, = AF: Unknown (Pleistocene) [K].

Genus SYCORAX Haliday

- ***SYCORAX** Haliday in Curtis, 1839: pl. 745. Type species: *Sycorax silacea* Haliday, 1839, by monotypy.
- prompta** Meunier, 1905c: 252. PA: Baltic Region (Eocene/Oligocene) [A].
- tumultuosa** Meunier, 1905c: 252. PA: Baltic Region (Eocene/Oligocene) [A].
- Unidentified sp.—NE: Canada (Upper Cretaceous) [A] (Quate & Vockeroth, 1981: 298).
- Unidentified sp.—PA: Japan (Pleistocene) [K] (Saigusa, 1974: 421).

Genus TELMATOSCOPUS Eaton

- ***TELMATOSCOPUS** Eaton, 1904: 58. Type species: *Pericoma advena* Eaton, 1893, by subsequent designation of Quate (1965: 93).
- hurdi** Quate, 1963: 114. NT: Mexico (Oligocene/Miocene) [A].

Genus TRICHOMYIA Haliday

- ***TRICHOMYIA** Haliday in Curtis, 1839: pl. 745. Type species: *Trichomyia urbica* Haliday, 1839, by monotypy.
- DIPLONEMA** Loew, 1844: 117. *Nomen nudum*.
- DIPLONEMA** Berendt, 1845: 57. *Nomen nudum*.
- DIPLONEMA** Loew, 1845: 7. Type species: *Diplonema buceras* Loew, 1845, by monotypy.
- PHALAENOMYIA** Loew, 1844: 117. *Nomen nudum*.
- PHALAENOMYIA** Berendt, 1845: 57. *Nomen nudum*.
- PHALAENOMYIA** Loew, 1845: 9, 10. Type species: *Diplonema buceras* Loew, 1845, by present designation.
- [*Phalaenomyia* originally proposed without included species. Meunier (1899e) included 2 species, but both were *nomina nuda*. Keilbach

(1982) included 7 species, but all were *nomina nuda*. The type designated is from the first validly named species included within the genus in accordance with the *Code*.]

- affinis** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- antennata** Meunier, 1899e: 175 (*Phalaenomyia*). *Nomen nudum*.
- antiquaria** Quate, 1961: 949. NT: Mexico (Oligocene/Miocene) [A].
- attenuata** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- brevicornis** Loew, 1850b: 31. PA: Baltic Region (Eocene/Oligocene) [A].
- brevipalpis** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- buceras** Loew, 1845: 7 (*Diplonema*). OR: "Ostindische" (Holocene) [K].
- concinna** Meunier, 1905c: 247. PA: Baltic Region (Eocene/Oligocene) [A].
- confinis** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- crassicornis** Meunier, 1905c: 251 (*Diplonema*). PA: Baltic Region (Eocene/Oligocene) [A].
- declivivena** Quate, 1963: 112. NT: Mexico (Oligocene/Miocene) [A].
- decora** Meunier, 1905c: 248. PA: Baltic Region (Eocene/Oligocene) [A].
- discalis** Quate, 1963: 112. NT: Mexico (Oligocene/Miocene) [A].
- distincta** Meunier, 1905c: 250. PA: Baltic Region (Eocene/Oligocene) [A].
- distincta* Meunier, 1899e: 175 (*Phalaenomyia*). *Nomen nudum*.
- formosula** Meunier, 1905c: 247. PA: Baltic Region (Eocene/Oligocene) [A].
- glomerosa** Quate, 1963: 113. NT: Mexico (Oligocene/Miocene) [A].
- hirticans** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- longicornis** Loew, 1850b: 31 (*Diplonema*). PA: Baltic Region (Eocene/Oligocene) [A].
- longipes** Keilbach, 1982: 359. (*Phalaenomyia*). *Nomen nudum*.
- mecocerca** Quate, 1963: 110. NT: Mexico (Oligocene/Miocene) [A].
- nova** Meunier, 1905c: 250. PA: Baltic Region (Eocene/Oligocene) [A].
- procera** Meunier, 1905c: 249. PA: Baltic Region (Eocene/Oligocene) [A].
- pulchra** Meunier, 1905c: 246. PA: Baltic Region (Eocene/Oligocene) [A].
- smithi** Quate, 1963: 112. NT: Mexico (Oligocene/Miocene) [A].
- succini** Keilbach, 1982: 359 (*Phalaenomyia*). *Nomen nudum*.
- swinhoei** Cockerell, 1917c: 21. OR: Myanmar (Miocene) [A].
- tenera** Meunier, 1905c: 248. PA: Baltic Region (Eocene/Oligocene) [A].

Unplaced Species of PSYCHODIDAE

- proavitus** Scudder, 1877a: 744 (*Culex*). NE: USA (Eocene) [C].