

Family BOMBYLIIDAE

The family Bombyliidae, members of which are commonly called bee flies, are found worldwide and comprise approximately 4,500 species. Female adults of extant forms are obligate nectar and pollen feeders and are major pollinators of some desert wildflowers. Adult males can be found hovering over territories, visiting flowers, or resting on rocks or bare ground in sunshine. Larvae are all parasitoids of holometabolous insect larvae or predaceous on egg pods of non-holometabolous insects.

Fossil specimens of the family are known primarily from compression fossils of Florissant, Colorado and Baltic amber, though other Tertiary localities in Europe have produced additional taxa. The family is apparently of relatively recent origin. The oldest fossils described thus far are from the Eocene/Oligocene Baltic amber.

Ref.: Paramonov (1939, review of fossils); Hennig (1966*e*, review of Baltic amber taxa); Hull (1973, world review of fossils); Zaitzev (1986, review of amber fossils); Evenhuis (1991, world catalog of genera).

Genus ALEPIDOPHORA Cockerell

ALEPIDOPHORA Cockerell, 1909*b*: 54. Type species: *Alepidophora pealei* Cockerell, 1909, by monotypy.

cockerelli Melander, 1949: 32. NE: USA (Oligocene) [C].

maxima Lewis, 1972*b*: 1421. NE: USA (Oligocene) [C].

minor Melander, 1949: 31. NE: USA (Oligocene) [C].

pealei Cockerell, 1909*b*: 54. NE: USA (Oligocene) [C].

Genus ALOMATIA Cockerell

ALOMATIA Cockerell, 1914*c*: 721. Type species: *Alomatia fusca* Cockerell, 1914, by monotypy.

fusca Cockerell, 1914*c*: 721. NE: USA (Oligocene) [C].

Genus AMICTITES Hennig

AMICTITES Hennig, 1966*e*: 9. Type species: *Amictites regiomontana* Hennig, 1966, by monotypy.

regiomontana Hennig, 1966*e*: 9. PA: Baltic Region (Eocene/Oligocene) [A].

Genus AMPHICOSMUS Coquillett

***AMPHICOSMUS** Coquillett, 1891: 219. Type species: *Amphicosmus elegans* Coquillett, 1891, by monotypy.

delicatus Melander, 1949: 32. NE: USA (Oligocene) [C].

Genus ANTHRAX Scopoli

***ANTHRAX** Scopoli, 1763: 358. Type species: *Musca morio* Linnaeus, 1758 [misidentification, = *Musca anthrax* Schrank, 1781], by monotypy.

dentoni Lewis, 1969: 112. NE: USA (Miocene) [C].

Genus APOLYSIS Loew

***APOLYSIS** Loew, 1860*a*: 86 [1860*b*: 269]. Type species: *Apolysis humilis* Loew, 1860, by monotypy.

magister Melander, 1947: 47. NE: USA (Oligocene) [C].

Genus BOMBYLIUS Linnaeus

***BOMBYLIUS** Linnaeus, 1758: 606. Type species: *Bombylius major* Linnaeus, 1758, by subsequent designation of Latreille (1810: 443).

depereti Meunier, 1915*b*: 13. PA: France (Oligocene) [C].

fossilis Handlirsch, 1907*c*: 1012. PA: Germany (Miocene) [C].

tertiarius Handlirsch, 1907*c*: 1012. PA: Germany (Miocene) [C].

?Unidentified sp.—PA: Baltic Region (Eocene/Oligocene) [A] (Berendt, 1830: 30; Hennig, 1966*e*: 1).

Genus **DESMATOMYIA** Williston

***DESMATOMYIA** Williston, 1895: 268. Type species *Desmatomyia anomala* Williston, 1895, by monotypy.

ACREOTRICHITES Cockerell, 1917b: 376. Type species: *Acreotrichites scopulicornis* Cockerell, 1917, by original designation.

scopulicornis Cockerell, 1917b: 376 (*Acreotrichites*). NE: USA (Oligocene) [C].

scudderi Cockerell, 1916c: 90 (*Psilocephala*). NE: USA (Oligocene) [C].

Genus **DISCHISTUS** Loew

***DISCHISTUS** Loew, 1855: 45 (as *Bombylius* subgenus). Type species: *Bombylius mystax* Wiedemann, 1818, by subsequent designation of Becker (1913: 494).

tertiarius Théobald, 1937a: 349. PA: France (Oligocene) [C].

Genus **DOLICHOMYIA** Wiedemann

***DOLICHOMYIA** Wiedemann, 1830: 642. Type species: *Dolichomyia nigra* Wiedemann, 1830, by monotypy.

tertiaria Cockerell, 1917a: 20. NE: USA (Oligocene) [C].

testacea Melander, 1949: 35 (*Melanderella*). NE: USA (Oligocene) [C]. **New combination.**

Genus **EXOPROSOPA** Macquart

***EXOPROSOPA** Macquart, 1840: 35 (1841: 313). Type species: *Anthrax pandora* Fabricius, 1805, by subsequent designation of Coquillett (1910: 544) [Designation conserved by I.C.Z.N. (1991: 82).]

romani Théobald, 1937a: 350. PA: France (Oligocene) [C].

Genus **GERON** Meigen

***GERON** Meigen, 1820: 223. Type species: *Geron gibbosus* Meigen, 1820 [pre-occupied, = *Bombylius gibbosus* Olivier, 1789], by subsequent designation of Duponchel in d'Orbigny (1845: 206).

figuratus Théobald, 1937a: 350. PA: France (Oligocene) [C].

oligocaenica Timon-David, 1944: 132 (*Phthiria*). PA: France (Oligocene) [C]. **New combination.**

platysoma Cockerell, 1915a: 643. NE: USA (Oligocene) [C].

Genus GLAESAMICTUS Hennig

GLAESAMICTUS Hennig, 1966e: 12. Type species: *Glaesamictus hafniensis* Hennig, 1966, by monotypy.

hafniensis Hennig, 1966e: 12. PA: Baltic Region (Eocene/Oligocene) [A].

Genus HEMIPENTHES Loew

***HEMIPENTHES** Loew, 1869: 28 [1872b: 141]. Type species: *Musca morio* Linnaeus, 1758, by subsequent designation of Bezzi (1908: 31).

gabbroensis Handlirsch, 1907c: 1011 (*Anthrax*). PA: Italy (Miocene) [C].

provincialis Handlirsch, 1907c: 1011 (*Anthrax*). PA: France (Oligocene) [C].

tertiarius Handlirsch, 1907c: 1011 (*Anthrax*). PA: Germany (Oligocene) [C].

Unidentified sp.—PA: Baltic Region (Eocene/Oligocene) [A] (Burmeister, 1832: 636).

Genus MACROCONDYLA Rondani

***MACROCONDYLA** Rondani, 1863: 54 (1864: 54). Type species: *Macrocondyla pictinervis* Rondani, 1863, by original designation.

MEGACOSMUS Cockerell, 1909a: 10. Type species: *Megacosmus mirandus* Cockerell, 1909, by monotypy. **New synonymy.**

miranda Cockerell, 1909a: 10 (*Megacosmus*). NE: USA (Oligocene) [C]. **New combination.**

Genus MELANDERELLA Cockerell

MELANDERELLA Cockerell, 1909c: 70. Type species: *Melanderella glossalis* Cockerell, 1909, by monotypy.

glossalis Cockerell, 1909c: 70. NE: USA (Oligocene) [C].

Genus PACHYSYSTROPUS Cockerell

PACHYSYSTROPUS Cockerell, 1909*b*: 56. Type species: *Pachysystropus rohweri* Cockerell, 1909, by monotypy.

condemnatus Cockerell, 1910*c*: 287. NE: USA (Oligocene) [C].

rohweri Cockerell, 1909*b*: 56. NE: USA (Oligocene) [C].

Genus PALAEOAMICTUS Meunier

PALAEOAMICTUS Meunier, 1916*a*: 276. Type species: *Palaeoamictus spinosus* Meunier, 1916, by monotypy.

spinosus Meunier, 1916*a*: 276. PA: Baltic Region (Eocene/Oligocene) [A].

Genus PALAEOGERON Meunier

PALAEOGERON Meunier, 1915*a*: 195. Type species: *Palaeogeron vetustus* Meunier, 1915, by monotypy.

vetustus Meunier, 1915*a*: 195. PA: France (Oligocene) [C].

Genus PARACORSOMYZA Hennig

PARACORSOMYZA Hennig, 1966*e*: 4. Type species: *Corsomyia crassirostris* Meunier, 1910 [as "*crassirostris* Loew, 1850"], by monotypy.

crassirostris Meunier, 1910*g*: 349 (*Corsomyza*). PA: Baltic Region (Eocene/Oligocene) [A].

crassirostris Loew, 1850*b*: 40 [1861: 91; 1864: 311] (*Corsomyia*). *Nomen nudum*.

Genus PARACOSMUS Osten Sacken

***ALLOCOTUS** Loew, 1872*a*: 82 [1872*b*: 258]. Type species *Allocotus edwardsii* Loew, 1872, by monotypy. [Preoccupied by *Allocotus* Fisher von Waldheim, 1838.]

***PARACOSMUS** Osten Sacken, 1877: 262 (new replacement name for *Allocotus* Loew). Type species: *Allocotus edwardsii* Loew, 1872, automatic.

LITHOCOSMUS Cockerell, 1909*c*: 71. Type species: *Lithocosmus coquilletti* Cockerell, 1909, by monotypy. **New synonymy**.

PROTOPHTHIRIA Cockerell, 1914*c*: 720. Type species: *Protophthiria palpalis* Cockerell, 1914, by monotypy. **New synonymy**.

PROTOLOMATIA Cockerell, 1914c: 723. Type species: *Protolomatia antiqua* Cockerell, 1914, by monotypy.

antiquus Cockerell, 1914c: 723 (*Protolomatia*). NE: USA (Oligocene) [C].

coquilletti Cockerell, 1909c: 71 (*Lithocosmus*). NE: USA (Oligocene) [C]. **New combination.**

palpalis Cockerell, 1914c: 720 (*Protophthiria*). NE: USA (Oligocene) [C]. **New combination.**

recurrens Cockerell, 1916c: 93 (*Protolomatia*). NE: USA (Oligocene) [C]. **New combination.**

Genus PETROROSSIA Bezzi

***PETROROSSIA** Bezzi, 1908: 35. Type species: *Bibio hesperus* Rossi, 1790, by original designation.

gracilis Giebel, 1862: 318 (*Lomatia*). ?AF: [Unknown] (Holocene) [K].

Genus PHTHIRIA Meigen

***PHTHIRIA** Meigen, 1803: 268. Type species: *Bombylius pulicarius* Mikan, 1796, by monotypy.

fossa Lewis, 1975: 422. NE: USA (Oligocene) [C].

Genus POECILOGNATHUS Jaennicke

***POECILOGNATHUS** Jaennicke, 1867: 350. Type species: *Poecilognathus thlipsomyzoides* Jaennicke, 1867, by monotypy.

GERONITES Cockerell, 1915a: 643. Type species: *Geronites stigmalis* Cockerell, 1915, by monotypy.

stigmalis Cockerell, 1915a: 643 (*Geronites*). NE: USA (Oligocene) [C].

Genus PRAECYTHEREA Théobald

PRAECYTHEREA Théobald, 1937b: 168. Type species: *Praecytherea sardii* Théobald, 1937, by monotypy.

sardii Théobald, 1937b: 168. PA: France (Oligocene) [C].

Genus SPOGOSTYLUM Macquart

***SPOGOSTYLUM** Macquart, 1840: 53 (1841: 331). Type species: *Spogostylum mystaceum* Macquart, 1840 [= *Anthrax tripunctatus* Wiedemann in Meigen, 1820], by monotypy.

***SPONGOSTYLUM** Agassiz, 1846: 349 (unjustified emendation of *Spogostylum* Macquart). Type species: *Spogostylum mystax* Macquart, 1840 [= *Anthrax tripunctatus* Wiedemann in Meigen, 1820], automatic.

Unidentified sp.—PA: Germany (Oligocene) [C] (Statz, 1940: 131).

Genus SYSTROPUS Wiedemann

***SYSTROPUS** Wiedemann, 1820a: 18. Type species: *Systropus macilentus* Wiedemann, 1820, by original designation (on plate).

acourti Cockerell, 1921c: 469. PA: UK (England) (Eocene/Oligocene) [C].

rottensis Meunier, 1917b: 9. PA: Germany (Oligocene) [C].

Genus TITHONOMYIA Evenhuis

TITHONOMYIA Evenhuis, 1984: 160. Type species: *Protophthiria atra* Melander, 1949, by original designation.

atra Melander, 1949: 33 (*Protophthiria*). NE: USA (Oligocene) [C].

Genus USIA Latreille

***VOLUCCELLA** Fabricius, 1794: 412. Type species: *Volucella florea* Fabricius, 1794, automatic (by designation of type species for *Usia* Latreille). [*Volucella* Fabricius not preoccupied by *Volucella* Geoffroy, 1762.]

***USIA** Latreille, 1802: 430 (unjustified new replacement name for *Volucella* Fabricius). Type species: *Volucella florea* Fabricius, 1794, by subsequent designation of Latreille (1810: 443).

[Contrary to opinion by the I.C.Z.N. (1957a), *Volucella* Fabricius, 1794, is not a subsequent misspelling of *Volucella* Geoffroy, 1762, and is the first available name for species in this genus. In order to follow common usage and promote taxonomic stability, the use of *Usia* is here maintained. An application to the I.C.Z.N. to suppress *Volucella* is in preparation.]

***ZERINTHIA** Rafinesque, 1815: 130 (unnecessary new replacement name for *Usia* Latreille). Type species: *Volucella florea* Fabricius, 1794, automatic.

atra Statz, 1940: 131. PA: Germany (Oligocene) [C].

Genus VERRALLITES Cockerell

VERRALLITES Cockerell, 1913b: 231. Type species: *Verrallites cladurus* Cockerell, 1913, by monotypy.

VENALLITES. Incorrect original spelling of *Verrallites* (Cockerell, 1913b: 230).
cladurus Cockerell, 1913b: 231. NE: USA (Oligocene) [C].

Genus VILLA Lioy

***VILLA** Lioy, 1864: 732. Type species: *Anthrax concinna* Meigen, 1820 [= *Anthrax abbadon* Fabricius, 1794], by subsequent designation of Coquillett (1910: 619).

PROTEPACMUS Cockerell, 1916c: 94. Type species: *Protepacmus setosus* Cockerell, 1916, by monotypy.

setosa Cockerell, 1916c: 94 (*Protepacmus*). NE: USA (Oligocene) [C].

Genus YLASOIA Speiser

***YLASOIA** Speiser, 1920: 213. Type species: *Anthrax pegasus* Wiedemann, 1828, by original designation.

secunda Cockerell, 1911: 80 (*Megacosmus*). NE: USA (Oligocene) [C]. **New combination.**

Questionably Placed in BOMBYLIIDAE**Genus ANTHRACIDA Germar**

ANTHRACIDA Germar, 1849: 64. Type species *Anthracida xylozona* Germar, 1849, by monotypy.

xylozona Germar, 1849: 64. PA: Germany (Oligocene) [C].