

Family BIBIONIDAE

Bibionids, commonly called march flies, love bugs, or harlequin flies, are found in all regions of the globe and comprise some 1,000 living and fossil species. They are the largest family of fossil Diptera with 344 species described in 12 genera. Adults of extant forms are commonly found hovering in mating swarms. Some are nectar and pollen feeders. Immature stages are herbivorous, with some feeding on roots and tubers. Most larvae breed in rotting leaves and other decaying vegetation.

The oldest recorded compression fossils of Bibionidae are from the Upper Triassic deposits of the Dan River formation of North America (Olsen *et al.*, 1978). Peterson (1975) described a species of *Bibio* from Upper Cretaceous Canadian amber, Rayner (1987) discussed an assemblage of Mid- to Upper Cretaceous bibionids from Botswana, and Zherichin & Sukacheva (1973) mentioned an undescribed species of the family from Upper Cretaceous Siberian amber. Other undescribed fossils include the records of bibionids from the Pliocene of Turkmenia (Rohdendorf, 1964), Miocene of Austria (Bachmayer, 1974), the Oligocene/Miocene amber of the Dominican Republic (Poinar, 1992), the Upper Cretaceous deposits of the Isle of Mull, Scotland (Jarzembowski, 1978: 251), and the Lower Cretaceous Santana Formation of Brazil (Grimaldi, 1990: 178; Maisey, 1991: 422).

Gentilini (1991a) asserted that the majority of Rice's (1959) species of *Plecia* may have to be transferred to *Penthetria*. These taxa are here left in *Plecia* until examination of the type material can be conducted.

Recently, Zhang (1993a) transferred *Clothonopsis miocenica* Hong & Wang from the Embioptera to the Bibionidae after restudying the description and illustrations provided by Hong & Wang (1987).

Ref.: Rice (1959, review of Canadian taxa); Dürrenfeldt (1968, new German Pliocene species).

Genus BIBIO Linnaeus

***BIBIO** Geoffroy, 1762: 568. Type species: *Tipula hortulana* Linnaeus, 1758, by subsequent designation of Latreille (1810: 442) (as "*Hirtea hortulana* Fabr."). [Validated by I.C.Z.N. (1957a: 86).]

***BIBIONUS** Rafinesque, 1815: 130 (unnecessary new replacement name for *Bibio* Linnaeus). Type species: *Tipula hortulana* Linnaeus, 1758, automatic.
DICHANEURUM Aymard, 1856: 42. *Nomen nudum*.

acaptus Dürrenfeldt, 1968: 59. PA: Germany (Pliocene) [C].

aerosus Statz, 1943: 50. PA: Germany (Oligocene) [C].

- alacris** Oustalet, 1870: 127. PA: France (Oligocene) [C].
- albangulus** Dürrenfeldt, 1968: 69. PA: Germany (Pliocene) [C].
- anasiformis** Dürrenfeldt, 1968: 70. PA: Germany (Pliocene) [C].
- angustatus** Heer, 1849: 215. PA: Switzerland (Miocene) [C].
- atavus** Cockerell, 1909f: 173. NE: USA (Oligocene) [C].
- auripes** Statz, 1943: 51. PA: Germany (Oligocene) [C].
- aymardi** Maneval, 1936: 34. PA: France (Oligocene) [C].
infossum Aymard, 1856: 42 (*Dichaneurum*). *Nomen nudum*.
primaevum Aymard, 1856: 42 (*Dichaneurum*). *Nomen nudum*.
- batheri** Pongrácz, 1928: 180. PA: Croatia (Miocene) [C].
- baumbergeri** Théobald, 1937a: 223. PA: France (Oligocene) [C].
- brachypodus** Zhang, 1989a: 351. PA: China (Miocene) [C].
- brachypteroides** Meunier, 1915c: 215. PA: Germany (Oligocene) [C].
- *brunettii** Hardy, 1973: 435 (new replacement name for *abdominalis* Brunetti).
 OR: India; PA: China (Miocene) [C].
**abdominalis* Brunetti, 1911: 276. OR: India; PA: China (Miocene) [C].
 [Preoccupied by Fabricius, 1805.]
- brunneifemus** Zhang, 1989a: 343. PA: China (Miocene) [C].
- brunneus** Zhang, 1989a: 351. PA: China (Miocene) [C].
- bullatus** Hong, 1985: 27 (*Fungivora*). PA: China (Miocene) [C].
- capnodes** Melander, 1949: 22. NE: USA (Oligocene) [C].
- carnificus** Dürrenfeldt, 1968: 59. PA: Germany (Pliocene) [C].
- celasensis** Théobald, 1937a: 139. PA: France (Oligocene) [C].
- cockerelli** James, 1937: 242. NE: USA (Oligocene) [C].
- colossoceps** Zhang, 1989a: 347. PA: China (Miocene) [C].
- comosella** Statz, 1943: 47. PA: Germany (Oligocene) [C].
- conformans** Théobald, 1937a: 335. PA: France (Oligocene) [C].
- consolidus** Théobald, 1937a: 225. PA: France (Oligocene) [C].
- constringtus** Dürrenfeldt, 1968: 60. PA: Germany (Pliocene) [C].
- contererus** Dürrenfeldt, 1968: 54. PA: Germany (Pliocene) [C].
- cratopodus** Zhang, 1989a: 354. PA: China (Miocene) [C].
- cruciformis** Dürrenfeldt, 1968: 68. PA: Germany (Pliocene) [C].
- curtisii** Heer, 1856: 34. PA: France (Oligocene) [C].
- cylindratus** Oustalet, 1870: 133. PA: France (Oligocene) [C].
- deflectus** Dürrenfeldt, 1968: 62. PA: Germany (Pliocene) [C].
- deformatus** Zhang, 1989a: 345. PA: China (Miocene) [C].
- deletus** Heyden, 1859: 14. PA: Germany (Oligocene) [C].
- detractus** Théobald, 1937a: 334. PA: France (Oligocene) [C].
- discerptus** Dürrenfeldt, 1968: 65. PA: Germany (Pliocene) [C].
- disjunctus** Théobald, 1937a: 334. PA: France (Oligocene) [C].
- dislocatus** Théobald, 1937a: 224. PA: France (Oligocene) [C].
- dormitus** Dürrenfeldt, 1968: 55. PA: Germany (Pliocene) [C].
- dubius** Germar, 1837: pl. 24 (*Phthiria*). PA: Germany (Oligocene) [C].
- elegantulus** Novák, 1877: 85. PA: Czech Republic (Oligocene) [C].
- elongatipennis** Théobald, 1937a: 141. PA: France (Oligocene) [C].

- elongatus** Heer, 1849: 214. PA: Switzerland (Miocene) [C].
enormus Dürrenfeldt, 1968: 55. PA: Germany (Pliocene) [C].
enterodelus Unger, 1841: 428. PA: Croatia (Miocene) [C].
excurvatus Melander, 1949: 23. NE: USA (Oligocene) [C].
expansus Zhang, 1989a: 344. PA: China (Miocene) [C].
explanatus Melander, 1949: 23. NE: USA (Oligocene) [C].
extremus Cockerell, 1921c: 468. PA: UK (England) (Eocene/Oligocene) [C].
firmus Heer, 1849: 226. PA: Croatia (Miocene) [C].
***flavissimus** Brunetti, 1925: 448. OR: India; Borneo, Philippines, AU: New Guinea; PA: China (Miocene) [C].
formosus Novák, 1877: 85. PA: Czech Republic (Oligocene) [C].
fusiformis Heer, 1849: 219. PA: Switzerland (Miocene) [C].
germari Meunier, 1920a: 652. PA: Germany (Oligocene) [C].
giganteus Unger, 1841: 427. PA: Croatia (Miocene) [C].
gigas Oustalet, 1870: 122. PA: France (Oligocene) [C].
gracilis Unger, 1841: 426. PA: Croatia (Miocene) [C].
gurnetensis Cockerell, 1917b: 375. PA: UK (England) (Eocene/Oligocene) [C].
heroica Heyden & Heyden, 1865a: 29 (*Plecia*). PA: Germany (Oligocene) [C].
inflexus Théobald, 1937a: 404. PA: France (Oligocene) [C].
infumatus Meunier, 1915c: 214. PA: Germany (Oligocene) [C].
jamesi Melander, 1949: 24. NE: USA (Oligocene) [C].
janus Heyden, 1870: 257. PA: Germany (Oligocene) [C].
jourascensis Théobald *in* Piton & Théobald, 1935: 69. PA: France (Oligocene) [C].
kochii Staub, 1883: 280. PA: Germany (Miocene) [C].
larteti Oustalet, 1870: 137. PA: France (Oligocene) [C].
latahensis Lewis, 1969: 110. NE: USA (Miocene) [C].
latiantennatus Dürrenfeldt, 1968: 51. PA: Germany (Pliocene) [C].
lignarius Germar, 1837: pl. 23. PA: Germany (Miocene) [C]; Croatia (Miocene) [C].
ungeri Heer, 1849: 218. PA: Croatia (Miocene) [C].
linearis Heer, 1849: 214. PA: Croatia (Miocene) [C].
lividus Heer, 1849: 223. PA: Croatia (Miocene) [C].
longineurus Zhang, 1989a: 357. PA: China (Miocene) [C].
luteipennis Théobald, 1937a: 333. PA: France (Oligocene) [C].
macer Oustalet, 1870: 126. PA: France (Oligocene) [C].
maceratus Théobald, 1937a: 142. PA: France (Oligocene) [C].
maculatus Heer, 1849: 219. PA: Croatia (Miocene) [C].
marginatus Oustalet, 1870: 125 (as *ungeri* subspecies). PA: France (Oligocene) [C].
marmoratus Pongrácz, 1928: 186. PA: Croatia (Miocene) [C].
martinsi Heer, 1861: 153. *Nomen nudum*.
medioalbus Dürrenfeldt, 1968: 53. PA: Germany (Pliocene) [C].
mimas Heyden, 1870: 258. PA: Germany (Oligocene) [C].
minor Oustalet, 1870: 134 (as *gracilis* subspecies.). PA: France (Oligocene) [C].
miocenicus Hong & Wang, 1985: 3. PA: China (Miocene) [C].

- moestus** Heer, 1849: 224. PA: Germany & France (Miocene) [C].
- morio** Heer, 1849: 222. PA: Croatia & France (Miocene) [C].
- incrassatus* Heer, 1849: 221. PA: Croatia (Miocene) [C].
- murchisonis** Unger, 1841: 426. PA: Croatia (Miocene) [C].
- nebulosus** Dürrenfeldt, 1968: 66. PA: Germany (Pliocene) [C].
- nigripennis** Théobald, 1937a: 286. PA: France (Oligocene) [C]. [Preoccupied by Brunetti, 1913; no new replacement name proposed here.]
- oblitus** Cockerell, 1921c: 468. PA: UK (England) (Eocene/Oligocene) [C].
- oblongus** Heer, 1849: 227. PA: Switzerland (Miocene) [C].
- obtusus** Théobald, 1937a: 140. PA: France (Oligocene) [C].
- oeningensis** Heer, 1849: 221. PA: Switzerland (Miocene) [C].
- oligocenus** Cockerell, 1917b: 375. PA: UK (England) (Eocene/Oligocene) [C].
- painvini** Meunier, 1915b: 16. PA: Germany (Oligocene) [C].
- parenti** Théobald, 1937a: 224. PA: France (Oligocene) [C].
- partschii** Heer, 1849: 216. PA: Croatia (Miocene) [C].
- penisularis** Zhang, 1993a: 144. PA: China (Miocene) [C].
- peraffinis** Zhang, 1989a: 346. PA: China (Miocene) [C].
- pinguis** Heer, 1849: 220. PA: Switzerland (Miocene) [C].
- podager** Melander, 1949: 24. NE: USA (Oligocene) [C].
- praecidus** Dürrenfeldt, 1968: 61. PA: Germany (Pliocene) [C].
- pulchellus** Heer, 1849: 217. PA: Switzerland (Miocene) [C].
- radobojanus** Heer, 1949: 220 (*aspinguis* subspecies). PA: Croatia (Miocene) [C].
- robustus** Oustalet, 1870: 128. PA: France (Oligocene) [C].
- rohli** Statz, 1943: 46. PA: Germany (Oligocene) [C].
- romani** Théobald, 1937a: 336. PA: France (Oligocene) [C].
- rottensis** Statz, 1943: 48. PA: Germany (Oligocene) [C].
- ruptineurus** Zhang, 1989a: 356. PA: China (Miocene) [C].
- sadoensis** Fujiyama, 1985: 51. PA: Japan (Miocene) [C].
- sereri** Massalongo, 1856: 21. PA: Italy (Eocene) [C].
- serresi** Théobald, 1937a: 336. PA: France (Oligocene) [C].
- shanwangensis** Hong, 1984a: 3. PA: China (Miocene) [C].
- similis** Dürrenfeldt, 1968: 64. PA: Germany (Pliocene) [C]. [Preoccupied by James, 1936; no new replacement name proposed here.]
- soldatus** Dürrenfeldt, 1968: 56. PA: Germany (Pliocene) [C].
- spadicus** Statz, 1943: 51. PA: Germany (Oligocene) [C].
- spectabilis** Théobald, 1937a: 333. PA: France (Oligocene) [C].
- sticheli** Handlirsch, 1911: 180. PA: Slovenia (Miocene) [C]; PA: Germany (Oligocene) [C].
- pannosus* Heyden & Heyden, 1865a: 20. PA: Germany (Oligocene) [C].
- heydeni* Meunier, 1920a: 653. PA: Germany (Oligocene) [C].
- tenuiapicalis** Théobald, 1937a: 40. PA: France (Oligocene) [C].
- tenuis** Dürrenfeldt, 1968: 71. PA: Germany (Pliocene) [C].
- tertiarius** Heyden, 1862: 78. PA: Germany (Oligocene) [C].
- testus** Lewis, 1969: 111. NE: USA (Miocene) [C].
- tranopterus** Zhang, 1989a: 353. PA: China (Miocene) [C].

- tripus** Dürrenfeldt, 1968: 58. PA: Germany (Pliocene) [C].
varineurus Zhang, 1989a: 355. PA: China (Miocene) [C].
ventricosus Zhang, 1989a: 341. PA: China (Miocene) [C].
vetus James, 1937: 243. NE: USA (Oligocene) [C].
vixdus Dürrenfeldt, 1968: 67. PA: Germany (Pliocene) [C].
vulcanius Melander, 1949: 25. NE: USA (Oligocene) [C].
vulpinus Statz, 1943: 49. PA: Germany (Oligocene) [C].
wickhami Cockerell, 1915a: 647. NE: USA (Oligocene) [C].
xylophilus Germar, 1837: pl. 22. PA: Germany (Oligocene) [C].
 Unidentified spp.—PA: Italy (Miocene) [C] (Statz, 1943: 56; Gentilini, 1991b: 442–44).
 Unidentified spp.—PA: Japan (Pliocene/Pleistocene) [C] (Fujiyama & Iwao, 1974: 95; Fujiyama, 1980: 28).

Genus BIBIODES Coquillett

- ***BIBIODES** Coquillett, 1904: 171. Type species: *Bibiodes halteralis* Coquillett, 1904, by original designation.
intermedia James, 1937: 243. NE: USA (Oligocene) [C].

Genus BIBIODITES Cockerell

- BIBIODITES** Cockerell, 1915c: 493. Type species: *Bibiodites confluens* Cockerell, 1915, by original designation.
confluens Cockerell, 1915c: 493. PA: UK (England) (Eocene/Oligocene) [C].

Genus CLOTHONOPSIS Hong & Wang

- CLOTHONOPSIS** Hong & Wang, 1987: 258. Type species: *Clothonopsis miocenica* Hong & Wang, 1987, by original designation.
miocenica Hong & Wang, 1987: 258. PA: China (Miocene) [C].

Genus DILOPHUS Meigen

- PHILIA* Meigen, 1800: 20. Suppressed by I.C.Z.N. (1963: 339).
 ***DILOPHUS** Meigen, 1803: 264. Type species: *Tipula febrilis* Linnaeus, 1758, by subsequent designation of Latreille (1810: 442).
campbelli Harris, 1983: AU: New Zealand (Eocene) [C].

krantzii Heyden, 1870: 255. PA: Germany (Oligocene) [C].
magnus Dürrenfeldt, 1968: 50. PA: Germany (Pliocene) [C].
priscus Loew, 1850*b*: 38. PA: Baltic Region (Eocene/Oligocene) [A].
 Unidentified sp.—PA: France (Oligocene) [C] (Statz, 1943: 56).

Genus **HESPERINUS** Walker

***HESPERINUS** Walker, 1848: 81. Type species: *Hesperinus brevifrons* Walker, 1848, by monotypy.
immutabilis Melander, 1949: 20. NE: USA (Oligocene) [C].

Genus **LITHOBIBIO** Beier

LITHOBIBIO Beier, 1952: 133. Type species: *Lithobibio styriacus* Beier, 1952, by monotypy.
styriacus Beier, 1952: 133. PA: Austria (Miocene) [C].

Genus **LITHOSOMYIA** Carpenter

MESOMYIA Pongrácz, 1928: 174. Type species: *Bibio brevis* Heer, 1849, by monotypy. [Preoccupied by Macquart, 1850.]
LITHOSOMYIA Carpenter, 1986: 576 (new replacement name for *Mesomyia* Pongrácz). Type species: *Bibio brevis* Heer, 1849, automatic.
brevis Heer, 1849: 225 (*Bibio*). PA: Switzerland (Miocene) [C].

Genus **MEGEANA** Meunier

MEGEANA Meunier, 1899*e*: 175. Type species: *Megeana hardyi* Evenhuis, 1993, by **present designation**.
 [*Megeana* originally proposed without included species. The type designated is from first inclusion of a named species within the genus in accordance with the *Code*.]
hardyi Evenhuis, 1994: in this work (**new species**). PA: Baltic Region (Eocene/Oligocene) [A].
 [Species-group name validated by bibliographic reference to characters given in Meunier (1899*e*: 175) for the genus *Megeana*.]

Genus MESOPLECIELLA Rohdendorf

MESOPLECIELLA Rohdendorf, 1946: 43. Type species: *Mesoplectiella minor* Rohdendorf, 1946, by original designation.

minor Rohdendorf, 1946: 43. PA: Kazakhstan (Upper Jurassic) [C].

Genus PENTHETRIA Meigen

***PENTHETRIA** Meigen, 1803: 264. Type species: *Penthetria funebris* Meigen, 1804, by subsequent monotypy in Meigen (1804: 104).

PROTOMYIA Heer, 1849: 231. Type species: *Protomyia lygaeoides* Heer, 1849, by subsequent designation of Carpenter (1992: 414).

EPIPLECIA Giard, 1879: 13. Type species: *Protomyia joannisi* Oustalet, 1870, by monotypy.

abacula Lewis, 1971b: 1466. NE: USA (Oligocene) [C].

adusta Oustalet, 1870: 145 (*Protomyia*). PA: France (Oligocene) [C].

aestimata Statz, 1943: 39. PA: Germany (Oligocene) [C].

affinis Heer, 1849: 235 (*Protomyia*). PA: Switzerland (Miocene) [C].

alderensis Lewis, 1971b: 1466. NE: USA (Oligocene) [C].

amoena Heer, 1849: 237 (*Protomyia*). PA: Switzerland (Miocene) [C].

anthracina Heer, 1849: 236 (*Protomyia*). PA: Switzerland (Miocene) [C].

blanchardi Oustalet, 1870: 148 (*Protomyia*). PA: France (Oligocene) [C].

bohémica Novák, 1877: 86 (*Protomyia*). PA: Czech Republic (Oligocene) [C].

brevipennis Heer, 1856: 35 (*Protomyia*). PA: France (Oligocene) [C].

bucklandi Heer, 1849: 238 (*Protomyia*). PA: Croatia (Miocene) [C].

dubia Geinitz, 1884: 582 (*Protomyia*). PA: Germany (Lower Jurassic) [C].

edwardsi Oustalet, 1870: 130 (*Biblio*). PA: France (Oligocene) [C].

elegans Heer, 1856: 36 (*Protomyia*). PA: France (Oligocene) [C].

formicoides Oustalet, 1870: 150 (*Protomyia*). PA: France (Oligocene) [C].

fryi Rice, 1959: 7. NE: Canada (Eocene) [C].

fuchsi Handlirsch, 1907c: 961. PA: Greece (Miocene) [C].

marinosi Bachmayer *et al.*, 1971: 170. PA: Greece (Miocene) [C].

fusca Oustalet, 1870: 145 (*Protomyia*). PA: France (Oligocene) [C].

globularis Oustalet, 1870: 147 (*Protomyia*). PA: France (Oligocene) [C].

gracilis Heer, 1856: 36 (*Protomyia*). PA: France (Oligocene) [C].

incerta Oustalet, 1870: 151 (*Protomyia*). PA: France (Oligocene) [C].

inflata Oustalet, 1870: 142 (*Protomyia*). PA: France (Oligocene) [C].

joannisi Oustalet, 1870: 143 (*Protomyia*). PA: France (Oligocene) [C].

jucunda Heer, 1849: 234 (*Protomyia*). PA: Croatia (Miocene) [C].

latipennis Heer, 1849: 237 (*Protomyia*). PA: Croatia (Miocene) [C].

livida Heer, 1856: 35 (*Protomyia*). PA: France (Oligocene) [C].

longa Heer, 1849: 233 (*Protomyia*). PA: Croatia (Miocene) [C].

longifurca Melander, 1949: 20. NE: USA (Oligocene) [C].

longipennis Oustalet, 1870: 141 (*Protomyia*). PA: France (Oligocene) [C].

- lugens** Oustalet, 1870: 142 (*Protomyia*). PA: France (Oligocene) [C].
- lygaeoides** Heer, 1849: 232 (*Protomyia*). PA: Croatia & France (Miocene) [C].
- major** Oustalet, 1870: 114 (*Plecia*). PA: France (Oligocene) [C].
- matheroni* Heer, 1861: 153. *Nomen nudum*.
- nigra** Statz, 1943: 39. PA: Germany (Oligocene) [C].
- nigrescens** Oustalet, 1870: 115 (*Plecia*). PA: France (Oligocene) [C].
- oustaleti** Brongniart, 1876a: 1 [1876b: 459] (*Protomyia*). PA: France (Oligocene) [C].
- pallida** Oustalet, 1870: 118 (*Plecia*). PA: France (Oligocene) [C].
- parschlugiana** Heer, 1849: 235 (*Protomyia*; as *jucunda* subspecies). PA: Switzerland (Miocene) [C]; PA: Austria (Miocene) [C].
- rotenensis** Statz, 1943: 40. PA: Germany (Oligocene) [C].
- rubescens** Oustalet, 1870: 149 (*Protomyia*). PA: France (Oligocene) [C].
- rubiensis** Lewis, 1971b: 1465. NE: USA (Oligocene) [C].
- sauvagii** Oustalet, 1870: 146 (*Protomyia*). PA: France (Oligocene) [C].
- scita** Statz, 1943: 40. PA: Germany (Oligocene) [C].
- speciosa** Heer, 1864: 394 (*Protomyia*). PA: Switzerland (Miocene) [C].
- togoensis** Fujiyama & Iwao, 1974: 93. PA: Japan (Pliocene/Pleistocene) [C].
- tropica** Statz, 1943: 39. PA: Germany (Oligocene) [C].
- vaillanti** Oustalet, 1870: 112. PA: France (Oligocene) [C].
- whipsawensis** Rice, 1959: 7. NE: Canada (Eocene) [C].
- Unidentified sp.—PA: Italy (Miocene) [C] (Gentilini, 1991a: 65).

Genus PLECIA Wiedemann

- ***PLECIA** Wiedemann, 1828: 72. Type species: *Hirtea fulvicollis* Fabricius, 1805, by subsequent designation of Blanchard (1840: 576).
- BIBIOPSIS* Heer, 1849: 28. Type species: *Bibiopsis cimicoides* Heer, 1849, by subsequent designation of Carpenter (1992: 414).
- MYCETOPHAETUS* Scudder, 1892: 20. Type species: *Mycetophaetus intermedius* Scudder, 1892, by monotypy.
- abava** Heyden & Heyden, 1865a: 20 (*Protomyia*). PA: Germany (Oligocene) [C].
- acourti** Cockerell, 1921c: 467. PA: UK (England) (Eocene/Oligocene) [C].
- aculeolata** Zhang, 1989a: 332. PA: China (Miocene) [C].
- acutiventris** Théobald, 1937a: 410. PA: France (Oligocene) [C].
- amagua** Cockerell, 1925c: 13. PA: Russia (Amur) (Oligocene/Miocene) [C].
- angustipennis** Handlirsch, 1910: 104 (*Penthetria*). NE: Canada (Eocene) [C].
- angustiventris** Théobald, 1937a: 135. PA: France (Oligocene) [C].
- antenata** Heyden & Heyden, 1865a: 26 (*Protomyia*). PA: Germany (Oligocene) [C].
- assonensis** Gentilini, 1993: 161. PA: France (Oligocene) [C].
- avunculus** Handlirsch, 1910: 104 (*Penthetria*). NE: Canada (Eocene) [C].
- avus** Handlirsch, 1910: 115 (*Penthetria*). NE: Canada (Eocene) [C].
- axeliana** Cockerell, 1915a: 646. NE: USA (Oligocene) [C].

- baglii** Gentilini, 1991a: 433. PA: Italy (Miocene) [C].
- bivalvula** Zhang, 1993a: 142. PA: China (Miocene) [C].
- borussica** Meunier, 1907b: 395. PA: Baltic Region (Eocene/Oligocene) [A].
- brevicollis** Heer, 1849: 231 (*Bibiopsis*). PA: Croatia (Miocene) [C].
- brevipes** Handlirsch, 1910: 106 (*Penthetria*). NE: Canada (Eocene) [C].
- brevithoracis** Théobald, 1937a: 409. PA: France (Oligocene) [C].
- brunneipennis** Piton, 1939: 107. PA: France (Oligocene) [C].
- cairnesi** Rice, 1959: 11. NE: Canada (Eocene) [C].
- canadensis** Handlirsch, 1910: 118 (*Penthetria*). NE: Canada (Eocene) [C].
- carbonum** Heyden & Heyden, 1865b: 34 (*Bibiopsis*). PA: Germany (Miocene) [C].
- catellaroi** Gentilini, 1991a: 427. PA: Italy (Miocene) [C].
- cerestensis** Théobald, 1937a: 409. PA: France (Oligocene) [C].
- cimicoides** Heer, 1849: 229 (*Bibiopsis*). PA: Croatia (Miocene) [C].
- claripennis** Théobald, 1937a: 228. PA: France (Oligocene) [C].
- collossea** Heyden & Heyden, 1865a: 21 (*Protomyia*). PA: Germany (Oligocene) [C].
- conica** Théobald, 1937a: 232. PA: France (Oligocene) [C].
- constricta** Théobald, 1937a: 342. PA: France (Oligocene) [C].
- crassicornis** Keilbach, 1982: 347. *Nomen nudum*.
- crassiventris** Théobald, 1937a: 227. PA: France (Oligocene) [C].
- creedensis** James, 1938a: 114. NE: USA (Eocene) [C].
- curtula** Handlirsch, 1910: 119 (*Penthetria*). NE: Canada (Eocene) [C].
- decapitata** Cockerell, 1917e: 391. NE: USA (Oligocene) [C].
- dejecta** Scudder, 1890: 586. NE: USA (Eocene) [C].
- diatoma** Zhang, 1989a: 331. PA: China (Miocene) [C].
- difficilis** Théobald, 1937a: 234. PA: France (Oligocene) [C].
- dilatata** Handlirsch, 1910: 120 (*Penthetria*). NE: Canada (Eocene) [C].
- dilatativentris** Théobald, 1937a: 338. PA: France (Oligocene) [C].
- dumasi** Théobald, 1937a: 138. PA: France (Oligocene) [C].
- egerana** Novák, 1877: 83 (*Bibiopsis*). PA: Czech Republic (Oligocene) [C].
- elegantula** Meunier, 1915d: 226 (*Protomyia*). PA: Germany (Oligocene) [C].
- eliator** Handlirsch, 1910: 108 (*Penthetria*). NE: Canada (Eocene) [C].
- elongata** Heyden & Heyden, 1865a: 27 (*Protomyia*). PA: Germany (Oligocene) [C].
- exigua** Statz, 1943: 26. PA: Germany (Oligocene) [C].
- explanata** Cockerell, 1917b: 376. NE: USA (Oligocene) [C].
- exposita** Heyden & Heyden, 1865a: 24 (*Protomyia*). PA: Germany (Oligocene) [C].
- falcatula** Handlirsch, 1910: 110 (*Penthetria*). NE: Canada (Eocene) [C].
- flichei** Théobald, 1937a: 406. PA: France (Oligocene) [C].
- foersteri** Théobald, 1937a: 230. PA: France (Oligocene) [C].
- fragmentum** Handlirsch, 1910: 111 (*Penthetria*). NE: Canada (Eocene) [C].
- fusciventris** Théobald, 1937a: 407. PA: France (Oligocene) [C].
- fushunensis** Hong, 1980: 46 [1981: 76]. PA: China (Eocene) [A].

- gigantea** Théobald, 1937a: 226. PA: France (Oligocene) [C].
- goreti** Théobald, 1937a: 409. PA: France (Oligocene) [C].
- gracilenta** Heyden & Heyden, 1865a: 28 (*Protomyia*). PA: Germany (Oligocene) [C].
- gracilentula** Evenhuis, 1994: in this work (**new replacement name** for *gracilentula* Zhang). PA: China (Miocene) [C].
- gracilentula* Zhang, 1993a: 143. PA: China (Miocene) [C]. [Preoccupied by Heyden & Heyden, 1865.] **New synonymy.**
- graciliventrtris** Théobald, 1937a: 138. PA: France (Oligocene) [C].
- gracillima** Förster, 1891: 480. PA: Germany (Miocene) [C].
- graciosa** Théobald, 1937a: 235. PA: France (Oligocene) [C].
- gradata** Melander, 1949: 21. NE: USA (Oligocene) [C].
- grandaeva** Heyden & Heyden, 1865a: 25 (*Protomyia*). PA: Germany (Oligocene) [C].
- grossa** Heyden & Heyden, 1865a: 22 (*Protomyia*). PA: Germany (Oligocene) [C].
- guinieri** Théobald, 1937a: 408. PA: France (Oligocene) [C].
- haennii** Gentilini, 1993: 164. France (Oligocene) [C].
- heeri** Heyden & Heyden, 1865a: 28 (*Protomyia*). PA: Germany (Oligocene) [C].
- hilaris** Heer, 1849: 211. PA: Switzerland (Miocene) [C].
- hypogaea** Heyden & Heyden, 1865a: 23 (*Protomyia*). PA: Germany (Oligocene) [C].
- imperialis* Novák, 1877: 84 (*Bibiopsis*). PA: Czech Republic (Oligocene) [C]. [Preoccupied by Schiner, 1868; no new replacement name proposed here.]
- imperialis* Statz, 1943: 13. PA: Germany (Oligocene) [C]. [Preoccupied by Schiner, 1868; no new replacement name proposed here.]
- inflata** Hull, 1960: 274. NE: USA (Oligocene) [C].
- intermedia** Scudder, 1892: 20 (*Mycetophaetus*). NE: USA (Oligocene) [C].
- intima** Fujiyama & Iwao, 1974: 94. PA: Japan (Pliocene/Pleistocene) [C].
- kanetakii** Fujiyama, 1970: 69. PA: Japan (Miocene) [C].
- kelownaensis** Rice, 1959: 8. NE: Canada (Eocene) [C].
- kudiella** Cockerell, 1925c: 14. PA: Russia (Amur) (Oligocene/Miocene) [C].
- kuznetzovi** Cockerell, 1925c: 15. PA: Russia (Amur) (Oligocene/Miocene) [C].
- lambei** Handlirsch, 1910: 116 (*Penthetria*). NE: Canada (Eocene) [C].
- lapidaria** Heyden & Heyden, 1865a: 25 (*Protomyia*). PA: Germany (Oligocene) [C].
- sluiteri* Meunier, 1917b: 14 (*Protomyia*). PA: Germany (Oligocene) [C].
- languensis** Gentilini, 1993: 162. PA: France (Oligocene) [C].
- longiventrtris** Théobald, 1937a: 133. PA: France (Oligocene) [C].
- luctuosa** Heyden & Heyden, 1865a: 22 (*Protomyia*). PA: Germany (Oligocene) [C].
- ludongensis** Hong & Wang, 1985: 5. PA: China (Miocene) [C].
- luteipennis** Théobald, 1937a: 233. PA: France (Oligocene) [C].
- luteola** Heyden & Heyden, 1865a: 26 (*Protomyia*). PA: Germany (Oligocene) [C].
- macrocephala** Heyden & Heyden, 1865a: 23 (*Protomyia*). PA: Germany (Oligocene) [C].

- macroventris** Théobald, 1937a: 229. PA: France (Oligocene) [C].
- maculiventris** Théobald, 1937a: 411. PA: France (Oligocene) [C].
- maimensis** Gentilini, 1993: 158. PA: France (Oligocene) [C].
- melanderi** Cockerell, 1911: 77. NE: USA (Oligocene) [C].
- miegi** Théobald, 1937a: 232. PA: France (Oligocene) [C].
- minutula** Rice, 1959: 8. NE: Canada (Eocene) [C].
- myersi** Peterson, 1975: 712. NE: Canada (Upper Cretaceous) [A].
- nana** Handlirsch, 1910: 111 (*Penthetria*). NE: Canada (Eocene) [C].
- nervisinuata** Théobald, 1937a: 339. PA: France (Oligocene) [C].
- nigra** Statz, 1943: 25 (as *lapidaria* subspecies). PA: Germany (Oligocene) [C].
[Preoccupied by Philippi, 1865; no new replacement name proposed here.]
- obsitula** Cockerell, 1925c: 15. PA: Russia (Amur) (Oligocene/Miocene) [C].
- obsoleta** Heer, 1849: 227 (*Bibio*). PA: Switzerland (Miocene) [C].
- oryctis** Melander, 1949: 21. NE: USA (Oligocene) [C].
- ovalis** Handlirsch, 1910: 117 (*Penthetria*). NE: Canada (Eocene) [C].
- oviformis** Théobald, 1937a: 229. PA: France (Oligocene) [C].
- pealei** Scudder, 1890: 585. NE: USA (Eocene) [C].
- pennata** Statz, 1943: 19. PA: Germany (Oligocene) [C].
- philippi** Statz, 1943: 10. PA: Germany (Oligocene) [C].
- pictipennis** Handlirsch, 1910: 106 (*Penthetria*). NE: Canada (Eocene) [C].
- pinguis** Heyden & Heyden, 1865a: 24 (*Protomyia*). PA: Germany (Oligocene) [C].
- pisaurensis** Gentilini, 1991a: 430. PA: Italy (Miocene) [C].
- platoptera** Zhang, 1993a: 141. PA: China (Miocene) [C].
- platyptera** Handlirsch, 1910: 121 (*Penthetria*). NE: Canada (Eocene) [C].
- prisca** Meunier, 1899e: 176. PA: Baltic Region (Eocene/Oligocene) [A].
- pristina** Hardy, 1971: 65. NT: Mexico (Oligocene/Miocene) [A].
- proserpina** Heyden & Heyden, 1865a: 22 (*Protomyia*). PA: Germany (Oligocene) [C].
- pulchella** Meunier, 1915c: 216. PA: Germany (Oligocene) [C].
- pulchra** Handlirsch, 1910: 113 (*Penthetria*). NE: Canada (Eocene) [C].
- pulla** Handlirsch, 1910: 105 (*Penthetria*). NE: Canada (Eocene) [C].
- quaesita** Novák, 1877: 86. PA: Czech Republic (Oligocene) [C].
- rectivena** Zhang, 1989a: 335. PA: China (Miocene) [C].
- redempta** Cockerell, 1925c: 14. PA: Russia (Amur) (Oligocene/Miocene) [C].
- reducta** Handlirsch, 1910: 109 (*Penthetria*). NE: Canada (Eocene) [C].
- retracta** Cockerell, 1925c: 14. PA: Russia (Amur) (Oligocene/Miocene) [C].
- retracta** Théobald, 1937a: 341. PA: France (Oligocene) [C].
- rhenana** Heyden & Heyden, 1865a: 28. PA: Germany (Oligocene) [C].
- rhodoptera** Cockerell, 1924a: 6. NE: USA (Eocene) [C].
- satyrus** Statz, 1943: 12. PA: Germany (Oligocene) [C].
- schineri** Heyden & Heyden, 1865a: 27 (*Protomyia*). PA: Germany (Oligocene) [C].
- separanda** Handlirsch, 1910: 112 (*Penthetria*). NE: Canada (Eocene) [C].

- similkameena** Scudder, 1879: 177 (*Penthetria*). NE: Canada (Miocene) [C].
- solaris** Zhang, 1989a: 334. PA: China (Miocene) [C].
- spinula** Zhang, 1989a: 329. PA: China (Miocene) [C].
- splendida** Théobald, 1937a: 137. PA: France (Oligocene) [C].
- sturmi** Statz, 1943: 20. PA: Germany (Oligocene) [C].
- stygia** Heyden & Heyden, 1865a: 24 (*Protomyia*). PA: Germany (Oligocene) [C].
- subterranea** Théobald, 1937a: 233. PA: France (Oligocene) [C].
- superba** Meunier, 1915c: 207. PA: Germany (Oligocene) [C].
- superba* Théobald, 1937a: 134. PA: France (Oligocene) [C]. [Preoccupied by Meunier, 1915; no new replacement name proposed here.]
- tessella** Melander, 1949: 21. NE: USA (Oligocene) [C].
- transitoria** Handlirsch, 1910: 117 (*Penthetria*). NE: Canada (Eocene) [C].
- tulameenensis** Rice, 1959: 11. NE: Canada (Eocene) [C].
- undans** Zeuner, 1941: 94. PA: UK (Scotland) (Upper Cretaceous) [C].
- varia** Théobald, 1937a: 234. PA: France (Oligocene) [C].
- variegata** Théobald, 1937a: 234. PA: France (Oligocene) [C].
- vergnei** Piton *in* Piton & Théobald, 1935: 86. PA: France (Oligocene) [C].
- veterana** Heyden & Heyden, 1865a: 25 (*Protomyia*). PA: Germany (Oligocene) [C].
- villosa** Zhang, 1989a: 333. PA: China (Miocene) [C].
- volgeri** Heyden, 1859: 15 (*Bibiopsis*). PA: Germany (Oligocene) [C].
- vulcania** Zhang, 1989a: 331. PA: China (Miocene) [C].
- vulpina** Statz, 1943: 27. PA: Germany (Oligocene) [C].
- winchesteri** Cockerell, 1917b: 375. NE: USA (Eocene) [C].
- winnertzi** Heyden & Heyden, 1865a: 21 (*Protomyia*). PA: Germany (Oligocene) [C].
- woodruffi** Cockerell, 1916c: 89. NE: USA (Eocene) [C].