

Family SCIARIDAE**

Members of the cosmopolitan family Sciaridae are moderately common in the fossil record, both in abundance of specimens and numbers of species. Adults of extant forms are commonly found in moist habitats, sometimes in large numbers, associated with larval haunts. Larvae feed chiefly on decaying plant matter or fungi. Some are pests in greenhouses and mushroom farms.

Many of the fossil species originally described in the "catch-all" genera *Lycoria* Meigen [= *Sciara* Meigen] or *Sciara* Meigen are badly in need of revision to accommodate contemporary generic concepts that have been developed for the extant forms.

The oldest records of the family are of undetermined specimens from the Cretaceous amber of Lebanon (Whalley, 1981), Siberia (Zherichin & Sukacheva, 1973), New Jersey (Grimaldi *et al.*, 1989: 19), and Canada (McAlpine & Martin, 1969). Other undetermined material includes records of the family from the Oligocene/Miocene amber of the Dominican Republic (Poinar, 1992), and Paleocene amber of Switzerland (Soom, 1984).

Ref.: Meunier (1904c, revision of Baltic amber taxa).

Genus BRADYSIA Winnertz

***BRADYSIA** Winnertz, 1867: 180. Type species: *Bradysia angustipennis* Winnertz, 1867, by subsequent designation of Enderlein (1911b: 127).

oligocenica Quiévreux, 1938: 80 (*Lycoria*). PA: France (Oligocene) [C]. **New combination.**

tertiaria Quiévreux, 1938: 81 (*Lycoria*). PA: France (Oligocene) [C]. **New combination.**

Genus CHAETOSCIARA Frey

***CHAETOSCIARA** Frey, 1942: 33 (as *Neosciara* Pettesy subgenus). Type species: *Sciara fenestralis* Zetterstedt, 1838 [misidentification, = *Sciara estlandica* Lengersdorf, 1929], by original designation.

NEOSCIARA, authors, not Pettesy, 1918, misidentification.

meunieri Evenhuis, 1994: in this work (**new replacement name** for *villosa* Meunier). PA: Baltic Region (Eocene/Oligocene) [A].

villosa Meunier, 1904a: 65 [1904c: 54] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Winnertz, 1867.]

** A paper on a revision of Baltic amber Sciaridae by Mohrig, W. & F. Röschmann, *Dtsch. Entomol. Z.* 41: 79–136 (1994) appeared too late for inclusion into the literature cited or index sections. However, the changes resulting from their study have been incorporated into this chapter.

Genus **CORYNOPTERA** Winnertz

- ***CORYNOPTERA** Winnertz, 1867: 177. Type species: *Corynoptera perpusilla* Winnertz, 1867, by subsequent designation of Enderlein (1911b: 127).
- curiosa** Meunier, 1904a: 80 [1904c: 69] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A].
- difficilis** Meunier, 1904a: 68 [1904c: 57] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Grzegorzek, 1884; no new replacement name proposed here.]
- dubia** Meunier, 1904a: 84 [1904c: 73]. PA: Baltic Region (Eocene/Oligocene) [A].
- eocenica** Meunier, 1904a: 71 [1904c: 60] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].
- verticillata** Meunier, 1904a: 69 [1904c: 58] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].
- klebsii** Meunier, 1904a: 75 [1904c: 64] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].
- hirticornis** Loew, 1850b: 34. (*Sciara*) PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Meigen, 1818.] **New synonymy.**
- pusilla** Meunier, 1899e: 170 (*Sciara*). *Nomen nudum.* **New synonymy.**
- variabilis** Meunier, 1904a: 69 [1904c: 58] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Zetterstedt, 1838.] **New synonymy.**
- bella** Meunier, 1904a: 73 [1904c: 62] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- minuscule** Meunier, 1904a: 79 [1904c: 68] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- palmnickii** Meunier, 1904a: 79 [1904c: 68] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- electra** Meunier, 1904a: 81 [1904c: 70] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- infernalis** Meunier, 1904a: 82 [1904c: 71] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- morosoides** Meunier, 1904a: 81 [1904c: 70] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy.**
- koenigsbergiensis** Mohrig & Röschmann, 1994: 121. PA: Baltic Region (Eocene/Oligocene) [A].
- schumanni** Mohrig & Röschmann, 1994: 123. PA: Baltic Region (Eocene/Oligocene) [A]; PA: Germany (Miocene) [A].
- spinulosa** Meunier, 1899e: 170 (*Sciara*). *Nomen nudum.*
- subagilis** Mohrig & Röschmann, 1994: 125. PA: Baltic Region (Eocene/Oligocene) [A]; PA: Germany (Miocene) [A].
- umbrosa** Meunier, 1904a: 83 [1904c: 72] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A].
- agilis** Meunier, 1904a: 82 [1904c: 71] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A].

conwentzii Meunier, 1904a: 84 [1904c: 73] (*Bradysia*). PA: Baltic Region (Eocene/Oligocene) [A].

Genus EPIDAPUS Haliday

***EPIDAPUS** Haliday in Walker, 1852a: 7. Type species: *Chionea venatica* Haliday, 1856 [= *Tipula atomaria* De Geer, 1776], by subsequent monotypy in Walker (1856: 56).

succinellus Mohrig & Röschmann, 1994: 130. PA: Baltic Region (Eocene/Oligocene) [A].

Genus HETEROTRICA Loew

***HETEROTRICA** Loew, 1850b: 33. Type species: *Heterotricha hirta* Loew, 1850, by monotypy.

PALAEOHETEROTRICA Meunier, 1904a: 62 [1904c: 51]. Type species: *Palaeoheterotricha grandis* Meunier, 1904, by monotypy.

PALAEOTRICHOSIA. Incorrect original spelling of *Palaeoheterotricha* (Meunier, 1904a: 38 [1904d: 27]).

PALAEOHOTEROTRICA. Incorrect original spelling of *Palaeoheterotricha* (Meunier, 1904a: 53 [1904c: 42]).

grandis Meunier, 1904a: 62 [1904c: 51] (*Palaeoheterotricha*). PA: Baltic Region (Eocene/Oligocene) [A].

hirta Loew, 1850b: 34. PA: Baltic Region (Eocene/Oligocene) [A].

Genus LYCORIELLA Frey

***LYCORIELLA** Frey, 1942: 22. Type species: *Sciara vivida* Winnertz, 1867 [misidentification, = *Sciara auripila* Winnertz, 1867], by original designation.

morosa Meunier, 1904a: 78 [1904c: 67] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

Genus PLASTOSCIARA Berg

***PSEUDOSCIARA** Kieffer, 1898: 194. Type species: *Pseudosciara pictiventris* Kieffer, 1898, by original designation. [Preoccupied by Schiner, 1866.]

***PLASTOSCIARA** Berg, 1899: 78 (new replacement name for *Pseudosciara* Kieffer). Type species: *Pseudosciara pictiventris* Kieffer, 1898, automatic.

Subgenus PEYRIMHOFFIA Kieffer

PEYRIMHOFFIA Kieffer, 1903: 198 (as genus). Type species: *Peyrimhoffia brachyptera* Kieffer, 1903, by subsequent designation of Enderlein (1911: 195).

keilbachi Mohrig & Röschmann, 1994: 132. PA: Baltic Region (Eocene/Oligocene) [A].

Genus PROTOSCIARA Quévieux

PROTOSCIARA Quévieux, 1938: 83. Type species: *Protosciara alsatica* Quévieux, 1938, by original designation.

alsatica Quévieux, 1938: 84. PA: France (Oligocene) [C].

Genus SCIARA Meigen

LYCORIA Meigen, 1800: 17. Suppressed by I.C.Z.N. (1963: 339).

***SCIARA** Meigen, 1803: 263. Type species: *Tipula thomae* Linnaeus, 1767 (as "*Hirtea thomae* Fabricius"), by monotypy.

acuminata Heer, 1849: 207. PA: Croatia (Miocene) [C].

acuminata Théobald, 1937a: 329. PA: France (Oligocene) [C]. [Preoccupied by Heer, 1849; no new replacement name proposed here.]

amicula Statz, 1944c: 176 (*Lycoria*). PA: Germany (Oligocene) [C].

antennaria Statz, 1944c: 169 (*Lycoria*). PA: Germany (Oligocene) [C].

atavina Heyden, 1870: 241. PA: Germany (Oligocene) [C].

atropa Zhang, 1989a: 359. PA: China (Miocene) [C].

aulica Statz, 1944c: 165 (*Lycoria*). PA: Germany (Oligocene) [C].

austera Statz, 1944c: 166 (*Lycoria*). PA: Germany (Oligocene) [C].

basalis Meunier, 1899b: 165. *Nomen nudum*. [Preoccupied by Winnertz, 1863.]

bella Statz, 1944c: 177 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Meunier, 1904; no new replacement name proposed here.]

berckhemeri Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].

bicolora Statz, 1944c: 173 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Meigen, 1818; no new replacement name proposed here.]

brachyceroidis Hong, 1981: 69 (*Lycoria*). PA: China (Eocene) [A].

brachyeeroidis. Incorrect original spelling of *brachyceroidis* (Hong, 1981: 6).

brachysitis. Incorrect original spelling of *brachyceroidis* (Hong, 1981: 61).

braeuhauseri Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].

branonci Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].

brevipetiolata Zhang, 1989a: 358. PA: China (Miocene) [C].

burmitina Cockerell, 1917c: 20. OR: Myanmar (Miocene) [A].

chrysitis Hong, 1981: 70 (*Lycoria*). PA: China (Eocene) [A].

compta Statz, 1944c: 164 (*Lycoria*). PA: Germany (Oligocene) [C].

- cona** Hong, 1981: 66 (*Lycoria*; as *bicolor* Meigen subspecies). PA: China (Eocene) [A].
- cryptocephala** Statz, 1944c: 168 (*Lycoria*). PA: Germany (Oligocene) [C].
- defectuosa** Meunier, 1904a: 89 [1904c: 78]. PA: Baltic Region (Eocene/Oligocene) [A].
- deffneri** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- defossa** Heyden, 1870: 241. PA: Germany (Oligocene) [C].
- deleta** Heer, 1864: 394. PA: Switzerland (Miocene) [C].
- deperdita** Scudder, 1878a: 457. NE: Canada (Oligocene) [C].
- dietleni** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- dormitans** Melander, 1949: 10. NE: USA (Oligocene) [C].
- ehrati** Armbruster, 1938: 129 (*Lycoria*). PA: Germany (Miocene) [C].
- electriphila** Cockerell, 1910b: 154. PA: Baltic Region (Eocene/Oligocene) [A].
- endriissi** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- euryopteris** Hong, 1981: 74 (*Lycoria*). PA: China (Eocene) [A].
europteroidis. Incorrect original spelling of *euryopteris* (Hong, 1981: 6).
euryopteroides. Incorrect original spelling of *euryopteris* (Hong, 1981: 73).
europteris. Incorrect original spelling of *euryopteris* (Hong, 1981: 160).
- exilis** Statz, 1944c: 178 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Say, 1829; no new name proposed here.]
- femuralis** Statz, 1944c: 175 (*Lycoria*). PA: Germany (Oligocene) [C].
- flichei** Théobald, 1937a: 403. PA: France (Oligocene) [C].
- florissantensis** Cockerell, 1916c: 97. NE: USA (Oligocene) [C].
- fraasi** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- gracilenta** Statz, 1944c: 172 (*Lycoria*). PA: Germany (Oligocene) [C].
- gracilior** Statz, 1944c: 176 (*Lycoria*). PA: Germany (Oligocene) [C].
- gurnetensis** Cockerell, 1915c: 490. PA: UK (England) (Eocene/Oligocene) [C].
- hennigi** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- heteroceroidis** Hong, 1981: 72 (*Lycoria*). PA: China (Eocene) [A].
- heydeni** Meunier, 1917b: 12. PA: Germany (Oligocene) [C].
- hirtella** Heer, 1849: 207. PA: Croatia (Miocene) [C].
- hoelzlei** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- ignorata** Meunier, 1904a: 74 [1904c: 63]. PA: Baltic Region (Eocene/Oligocene) [A].
- inflata** Théobald, 1937a: 328. PA: France (Oligocene) [C].
- janassa** Heyden, 1870: 240. PA: Germany (Oligocene) [C].
- joossi** Armbruster, 1938: 129 (*Lycoria*). PA: Germany (Miocene) [C].
- jucunda** Statz, 1944c: 170 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Johannsen, 1912; no new name proposed here.]
- kluepfeli** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- laoei** Cockerell, 1915c: 491. PA: UK (England) (Eocene/Oligocene) [C].
- laticornis** Statz, 1944c: 169 (*Lycoria*). PA: Germany (Oligocene) [C].
- lengersdorfi** Armbruster, 1938: 129 (*Lycoria*). PA: Germany (Miocene) [C].
- lengersdorfi** Statz, 1944c: 172 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Armbruster, 1938; no new replacement name proposed here.]

- longa** Statz, 1944c: 168 (*Lycoria*). PA: Germany (Oligocene) [C].
- longipennata** Statz, 1944c: 170 (*Lycoria*). PA: Germany (Oligocene) [C].
- lugens** Statz, 1944c: 173 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Johannsen, 1912; no new name proposed here.]
- martii** Novák, 1877: 89. PA: Czech Republic (Oligocene) [C].
- melanopa** Statz, 1944c: 171 (*Lycoria*). PA: Germany (Oligocene) [C].
- milleri** Armbruster, 1938: 129 (*Lycoria*). PA: Germany (Miocene) [C].
- minuscula** Statz, 1944c: 177 (*Lycoria*). PA: Germany (Oligocene) [C]. [Preoccupied by Meunier, 1904; no new replacement name proposed here.]
- minuscula** Théobald, 1937a: 330. PA: France (Oligocene) [C]. [Preoccupied by Meunier, 1904; no new replacement name proposed here.]
- minutula** Heer, 1849: 208. PA: Croatia (Miocene) [C].
- oblonga** Théobald, 1937a: 329. PA: France (Oligocene) [C].
- ovalipennata** Statz, 1944c: 171 (*Lycoria*). PA: Germany (Oligocene) [C].
- pelidua** Statz, 1944c: 167 (*Lycoria*). PA: Germany (Oligocene) [C].
- pennata** Statz, 1944c: 167 (*Lycoria*). PA: Germany (Oligocene) [C].
- pompeckii** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- protoberidis** Cockerell, 1915c: 491. PA: UK (England) (Eocene/Oligocene) [C].
- quenstedti** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- radians** Meunier, 1910c: 147. AF: Tanzania (Pleistocene/Holocene) [K].
- rara** Meunier, 1904a: 73 [1904c: 62]. PA: Baltic Region (Eocene/Oligocene) [A].
- requieta** Melander, 1949: 11. NE: USA (Oligocene) [C].
- rottensis** Heyden, 1870: 242. PA: Germany (Oligocene) [C].
- saportana** Théobald, 1937a: 328. PA: France (Oligocene) [C].
- schremmeri** Bachmayer, 1961: 160 (*Lycoria*). PA: Austria (Miocene) [C].
- scopuli** Scudder, 1890: 588. NE: USA (Oligocene) [C].
- seemani** Armbruster, 1938: 128 (*Lycoria*). PA: Germany (Miocene) [C].
- sepulta** Lewis, 1969: 107. NE: USA (Miocene) [C].
- sopora** Melander, 1949: 11. NE: USA (Oligocene) [C].
- splendida** Meunier, 1904a: 64 [1904c: 53]. PA: Baltic Region (Eocene/Oligocene) [A].
- stenopteris** Hong, 1981: 65 (*Lycoria*; as *bicolor* Meigen subspecies). PA: China (Eocene) [A].
- stenopteres*. Incorrect original spelling of *stenopteris* (Hong, 1981: 61).
- stehopteris*. Incorrect original spelling of *stenopteris* (Hong, 1981: 69).
- stpenopteris*. Incorrect original spelling of *stenopteris* (Hong, 1981: 163).
- succinea** Hong in Hong *et al.*, 1974: 127 (*Lycoria*). PA: China (Eocene) [A].
- thoracica** Statz, 1944c: 175 (*Lycoria*). PA: Germany (Oligocene) [C].
- trogloodytes** Heer, 1864: 394. PA: Germany (Oligocene) [C].
- trogloodytes* Heer, 1861: 153. *Nomen nudum*.
- villosoides** Meunier, 1904a: 80 [1904c: 69]. PA: Baltic Region (Eocene/Oligocene) [A].
- wageri** Armbruster, 1938: 129 (*Lycoria*). PA: Germany (Miocene) [C].
- weylandi** Statz, 1944c: 165 (*Lycoria*). PA: Germany (Oligocene) [C].
- winnertzii** Heyden, 1870: 242. PA: Germany (Oligocene) [C].

?Unidentified spp.—PA: Japan (Pliocene/Pleistocene) [C] (Fujiyama & Iwao, 1975: 43).

Genus **TRICHOSIA** Winnertz

***TRICHOSIA** Winnertz, 1867: 173. Type species: *Trichosia splendens* Winnertz, 1867, by subsequent designation of Coquillett (1910: 616).

Subgenus **ARCHAEOSACIARA** Mohrig & Röschmann

rubsaamenia Meunier, 1904a: 77 [1904c: 66] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

brachycera Meunier, 1899b: 165 (*Sciara*). *Nomen nudum*.

robusta Meunier, 1904a: 78 [1904c: 67] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Walker, 1848.]

Subgenus **LEPTOSCIARELLA** Tuomikoski

LEPTOSCIARELLA Tuomikoski, 1960: 20. Type species: *Sciara elegans* Winnertz, 1867, by original designation.

infausta Mohrig & Röschmann, 1994: 87. PA: Baltic Region (Eocene/Oligocene) [A].

macrociliata Mohrig & Röschmann, 1994: 89. PA: Baltic Region (Eocene/Oligocene) [A]; PA: Germany (Miocene) [A].

macrocera Meunier, 1899e: 170. *Nomen nudum*.

microciliata Mohrig & Röschmann, 1994: 91. PA: Baltic Region (Eocene/Oligocene) [A]; PA: Germany (Miocene) [A].

orientalis Meunier, 1904a: 72 [1904c: 61] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

protorotunda Mohrig & Röschmann, 1994: 94. PA: Baltic Region (Eocene/Oligocene) [A].

tanypeza Meunier, 1899e: 170 (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

botuli Meunier, 1904a: 66 [1904c: 55] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy**

sendelina Meunier, 1904a: 67 [1904c: 56] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. **New synonymy**.

tertiaria Meunier, 1904a: 77 [1904c: 66] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

Subgenus **PALAEOTRICHOSIA** Mohrig & Röschmann

diabolica Meunier, 1904a: 71 [1904c: 60] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

errans Meunier, 1904a: 65 [1904c: 54] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

dasycera Meunier, 1899b: 165. *Nomen nudum*.

preciosa Meunier, 1904a: 74 [1904c: 63] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A].

Subgenus TRICHOSIA Winnertz

meunieri Cockerell, 1910b: 154 (*Sciara*; new replacement name for *prolifca* Meunier). PA: Baltic Region (Eocene/Oligocene) [A].

prolifca Meunier, 1904a: 76 [1904c: 65] (*Sciara*). PA: Baltic Region (Eocene/Oligocene) [A]. [Preoccupied by Felt, 1898.]

Genus ZYGONEURA Meigen

***ZYGONEURA** Meigen, 1830: 304. Type species: *Zygoneura sciarina* Meigen, 1830, by monotypy.

curta Hong, 1981: 76 (*Lycoria*). PA: China (Eocene) [A].

Unidentified sp.—PA: Baltic Region (Eocene/Oligocene) [A] (Frey, 1942: 14, 36).

Questionably Included in SCIARIDAE

Genus PSEUDOSCIARA Schiner

***PSEUDOSCIARA** Schiner, 1866: 930. Type species: *Pseudosciara hirtella* Schiner, 1868, by original designation.

HEERIELLA Meunier, 1904a: 86 [1904c: 75]. Type species: *Heeriella bifurcata* Meunier, 1904, by monotypy.

bifurcata Meunier, 1904a: 86 [1904c: 75] (*Heeriella*). PA: Baltic Region (Eocene/Oligocene) [A].