

## Sciaridae

Jean-Paul Haenni (1998 Checklist: Frank Menzel)

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**Diagnosis:** 1-7 mm midges, of uniform appearance, mostly brown or dark in colour. Rounded head with eyes forming an eye-bridge over antennae (except in some species with reduced wings); antennae with 14-segmented flagellum; wing venation uniform, with both M and CuA forked and only one cross-vein (r-m) present; tibia with apical spurs; abdomen cylindrical, 9-segmented. Male genitalia with paired gonostyles, which shape and extent of hairy and spinose ornamentation are species-specific and used for identification. Female abdomen tapering apically, characters of terminalia very uniform, not usable for identification. Some soil-dwelling species have wings and halteres more or less reduced or even absent. Larvae have white, 12-segmented cylindrical body and black head capsule.

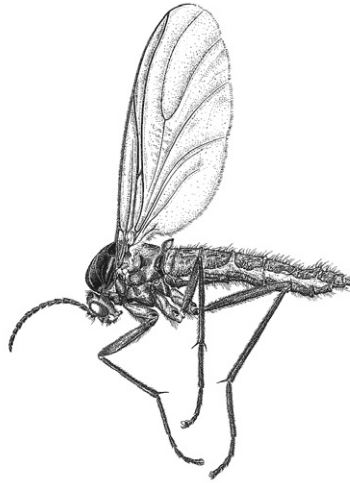
**Biology:** Sciarids are present in practically all terrestrial biotopes, with woodland being richer than open landscape. Larvae feed mainly in soil, on decaying plant material, but also in roots and stems of plants and in fungi. They are numerous in soils rich in decaying vegetal material and play an important role in the decomposition of litter. Animal burrows and caves are also inhabited by specialised species. Some species may become pests in glasshouses and mushroom cultures.

**Nomenclature and classification:** According to Menzel & Mohrig (2000), complemented by recent generic revisions, taxonomic works and checklists (Menzel & Heller 2006, 2007, Menzel et al. 2006, Heller et al. 2009, Hippa et al. 2010, Mohrig et al. 2013, Vilkamaa 2014, Vilkamaa & Menzel 2019, Menzel et al. 2020).

**Number of species:** CH: 170 (1998 Checklist: 126), BE: 80, CZ: 230, DE: > 650, ES: 286, FI: 338, GB: 267, NL: 123, SK: 135, Europe: > 700, World: ~2720.

**Level of faunistic knowledge in Switzerland:** Poor; no systematic study of the Swiss fauna has been undertaken until now (except for the Sihlwald ZH, Schiegg et al. 1999). The present list is largely based upon the one published in the preceding checklist (Menzel 1998), complemented by the species added in the first and third published supplements (Merz et al. 2002, Bächli et al. 2014). During the last 20 years systematics of the family Sciaridae continued to go through considerable changes and a great number of nomenclatural changes occurred. Some changes concerning the Swiss fauna may have been overlooked or misinterpreted by the compiler of the present list – not a specialist of the family –, who is responsible for any change from the initial 1998 list.

**General references:** Hippa et al. (2010) [revision Holarctic *Corynoptera*, key], Menzel & Mohrig (1997) [general, key to Palaearctic genera], Menzel & Mohrig (2000) [revision Palaearctic species, keys], Menzel & Schulz (2007) [ecology, ecosystemic importance, bio-indication], Vilkamaa & Menzel (2019) [revision *Lycoriella* s.l., keys].



*Sciara hemerobioides*,  
female (CMPD2, p. 52).

**References to the Swiss fauna:** Bächli et al. (2014), Menzel (1998), Menzel et al. (1990), Merz et al. (1998, 2002), Röschmann & Mohrig (1994), Schiegg et al. (1999).

## Checklist

*Bradysia* Winnertz, 1867

- *affinis* (Zetterstedt, 1838) L  
= *pratincola* Tuomikoski, 1960
- *alpicola* (Winnertz, 1867) !  
= *morio* (Fabricius, sensu Tuomikoski, 1960)
- *arcana* Menzel & Mohrig, 1998 L  
= *fenestralis* (Zetterstedt), sensu Tuomikoski (1960)
- *bicolor* (Meigen, 1818) !
- *breviallata* Mohrig & Menzel, 1992 ?
- *brevispina* Tuomikoski, 1960 !
- *browni* (Shaw, 1935) !  
= *diversiabdominalis* (Lengersdorf, 1941)
- *cinerascens* (Grzegorzec, 1884) !  
= *lanicauda* Tuomikoski, 1960
- *confinis* (Winnertz, 1867) L
- *desolata* Rudzinski, 1994 L
- *excelsa* Menzel & Mohrig, 1998 L  
= *affinis* (Zetterstedt), sensu Tuomikoski (1960)
- *fenestralis* (Zetterstedt, 1842) L
- *forficulata* (Bezzi, 1914) !  
= *nocturna* Tuomikoski, 1960
- *fungicola* (Winnertz, 1867) !

- = *ingrata* (Winnertz, 1867)
- *giraudii* (Schiner, 1864) L
- *hilariformis* Tuomikoski, 1960 L
- *hilaris* (Winnertz, 1867) L
- *impatiens* (Johannsen, 1912) !
  - = *difformis* Frey, 1948
  - = *paupera* Tuomikoski, 1960
- *lobulifera* Frey, 1948 L
- *longicauda* Mohrig & Menzel, 1990 L
- *longistylia* Mohrig & Krivosheina, 1982 !
- *lucida* Mohrig & Mamaev, 1989 L
- *maggiaensis* Mohrig & Röschmann, 1994 !
- *nervosa* (Meigen, 1818) L
- *nitidicollis* (Meigen, 1818) !
- *pallipes* (Fabricius, 1787) !
  - = *brunnipes* (Meigen, 1804)
  - = *engadinica* (Winnertz, 1867)
- *pectoralis* (Staeger, 1840) !
  - = *castanea* Mohrig & Menzel, 1990
- *pilistriata* Frey, 1948 !
- *placida* (Winnertz, 1867) !
  - = *fimbricauda* Tuomikoski, 1960
- *polonica* (Lengersdorf, 1929) !
- *praecox* (Meigen, 1818) !
- *pseudohilaris* Mohrig & Krivosheina, 1983 !
- *pseudopolonica* Mohrig & Röschmann, 1994 !
- *reflexa* Tuomikoski, 1960 !
- *regularis* (Lengersdorf, 1934) !
- *rufescens* (Zetterstedt, 1852) !
  - = *somnians* (Winnertz, 1867)
- *scabricornis* Tuomikoski, 1960 !
- *splendida* Mohrig & Krivosheina, 1989 !
- *strenua* (Winnertz, 1867) !
- *subaprica* Mohrig & Krivosheina, 1982 L
- *submoesta* Mohrig & Krivosheina, 1989 L
- *tillicola* (Loew, 1850) !
  - = *amoena* (Winnertz, 1867)
  - = *triseriata* Winnertz, 1867
- *trispinifera* Mohrig & Krivosheina, 1979 !
- *trivittata* (Staeger, 1840) !
  - = *spectrum* (Winnertz, 1867)
- *urticae* Mohrig & Menzel, 1992 !
- *vagans* (Winnertz, 1867) !
  - = *callicera* Frey, 1948
- *vernalis* (Zetterstedt, 1851) !
  - = *monticola* (Winnertz, 1867)

- *zetterstedti* Mohrig & Menzel, 1993 !

*Bradysiopsis* Tuomikoski, 1960

- *vittata* (Meigen, 1830) !
- = *nigripes* (Strobl, 1898)

*Camptochaeta* Hippa & Vilkkamaa, 1994

- *dentata* (Bukowski & Lengersdorf, 1936) L
- *praedentata* (Mohrig & Mamaev, 1987) L

*Claustropyga* Hippa, Vilkkamaa & Mohrig, 2003

- *brevichaeta* (Mohrig & Antonova, 1978) L

*Corynoptera* Winnertz, 1867

- *abblanda* Freeman, 1983 L
- *bicuspidata* (Lengersdorf, 1926) L
- *boletiphaga* (Lengersdorf, 1940) L
- *breviformis* Mohrig & Krivosheina, 1983 L
- *deserta* Heller & Menzel, 2006 ! N1
- = *Camptochaeta minutula* (Bukowski & Lengersdorf, 1936)
- = *inundata* (Fritz, 1982)
- *flavicauda* (Zetterstedt, 1855) L
- *forcipata* (Winnertz, 1867) !
- *furcata* (Hippa & Vilkkamaa, 1994) !
- *furcifera* Mohrig & Mamaev, 1987 L
- *globiformis* (Frey, 1945) L
- *grothae* Mohrig & Menzel, 1990 L
- *heteroclausa* Rudzinski, 1991 L
- *hypopygialis* (Lengersdorf, 1926) !
- = *piniphila* (Lengersdorf, 1940)
- *inexpectata* Tuomikoski, 1960 !
- *irmgardis* (Lengersdorf, 1930) !
- *levis* Tuomikoski, 1970 L
- *luteofusca* (Bukowski & Lengersdorf, 1936) !
- *membranigera* (Kieffer, 1903) L
- = *trispina* Tuomikoski, 1960
- *minima* (Meigen, 1818) L
- *patula* Hippa, Vilkkamaa & Heller, 2010 L
- *perpusilla* Winnertz, 1867 !
- *praeforcipata* Mohrig & Mamaev, 1987 !
- *saccata* Tuomikoski, 1960 L
- *saetistyla* Mohrig & Krivosheina, 1985 L
- *sedula* Mohrig & Krivosheina, 1985 !
- *sphenoptera* Tuomikoski, 1960 !
- *subfurcifera* Mohrig & Hövemeyer, 1992 L
- *tetrachaeta* Tuomikoski, 1960 L
- *trepida* (Winnertz, 1867) L
- = *subflava* (Lengersdorf, 1941)
- *tridentata* Hondru, 1968 !

*Cratyna* Winnertz, 1867

*(Cratyna s. str.)*

- *ambigua* (Lengersdorf, 1934) L
- *cryptospina* (Rudzinski, 1993) !
- *pernitida* (Edwards, 1915) L
- *uliginosa* (Lengersdorf, 1929) !

*(Peyerimhoffia Kieffer, 1903)*

- *vagabunda* (Winnertz, 1867) !
- = *brachyptera* (Kieffer, 1903)

*(Spathobdella Frey, 1948)*

- *egertoni* (Edwards, 1922) L
- *perplexa* (Winnertz, 1867) L

*Ctenosciara Tuomikoski, 1966*

- *hyalipennis* (Meigen, 1804) !

*Epidapus Haliday, 1851**(Epidapus s. str.)*

- *alnicola* (Tuomikoski, 1957) L N2
- *atomarius* (De Geer, 1778) !
- *gracilis* (Walker, 1848) !
- *lucifuga* (Mohrig, 1970) L N2
- *macrohalteratus* Mohrig & Menzel, 1992 !
- *microthorax* (Börner, 1903) !
- *schillei* (Börner, 1903) L

*(Pseudoaptanogyna Vimmer, 1926)*

- *absconditus* (Vimmer, 1926) !

*Hemineurina Frey, 1942*

- *algida* (Frey, 1948) ! N3
- = *globiceps* (Becher, 1886)
- *heydeni* (Winnertz, 1867) !
- *inflata* (Winnertz, 1867) !
- = *venosa* (Staeger, sensu Tuomikoski, 1960)
- *modesta* (Staeger, 1840) !

*Leptosciarella Tuomikoski, 1960**(Hirtipennia Mohrig & Henzel, 1997)*

- *hirtipennis* (Zetterstedt, 1838) !
- = *absurda* (Winnertz, 1867)

*(Leptosciarella s. str.)*

- *cerifera* Mohrig & Menzel, 1997 L
- *defecta* (Strobl, 1926) L
- *dimera* (Tuomikoski, 1960) L
- *fuscipalpa* (Mohrig & Mamaev, 1979) L
- *helvetica* (Rudzinski, 1992) !
- *melanoma* Mohrig & Menzel, 1990 L
- *pilosa* (Staeger, 1840) L
- *rejecta* (Winnertz, 1867) !
- *scutellata* (Staeger, 1840) L
- *subpilosa* (Edwards, 1925) !

- *trochanterata* (Zetterstedt, 1851) ! N4
- *viatica* (Winnertz, 1867) L
- *yerburyi* Freeman, 1983 L

*Lycoriella* Frey, 1942

- *acutostylia* Mohrig & Menzel, 1990 ! N5
- *brevipila* Tuomikoski, 1960 L
- *ingenua* (Dufour, 1839) L
  - = *mali* (Fitch, 1856)
- *lundstromi* (Frey, 1948) !
- *micria* Mohrig & Menzel, 1990 L
- *minutula* Mohrig & Krivosheina, 1987 L N6
- *sativae* (Johannsen, 1912) !
  - = *castanescens* (Lengersdorf, 1940)
- *subterranea* (Märkel, 1844) !
  - = *vanderwieli* (Schmitz, 1920)
- *weberi* Menzel & Heller, 2013 !

*Phytosciara* Frey, 1942*(Dolichosciara* Tuomikoski, 1960)

- *flavipes* (Meigen, 1804) L N7
- *ornata* (Winnertz, 1867) ! N7
- *subflavipes* (Mohrig & Menzel, 1994) L

*(Phytosciara* s. str.)

- *macrotricha* (Lengersdorf, 1926) !

*(Prosciara* Frey, 1942)

- *prosciaroides* (Tuomikoski, 1960) !
- *ungulata* (Winnertz, 1867) !

*Pnyxia* Johannsen, 1912

- *scabiei* (Hopkins, 1895) !

*Pseudolykoriella* Menzel & Mohrig, 1998

- *brunnea* (Bukowski & Lengersdorf, 1936) !
- *monticula* (Mohrig & Menzel, 1992) !
- *paludum* (Frey, 1948) !
- *subbruckii* (Mohrig & Hövemeyer, 1992) L
- *submonticula* (Mohrig & Mamaev, 1990) ?

*Scatopsciara* Edwards, 1927*(Scatopsciara* s. str.)

- *antefluviatilis* Mohrig & Röschmann, 1994 !
- *atomaria* (Zetterstedt, 1851) !
  - = *nacta* (Johannsen, 1912)
  - = *soluta* (Winnertz, 1867)
  - = *vivida* (Winnertz, 1867)
- *calamophila* Frey, 1948 !
- *edwardsi* Freeman, 1983 !
- *fluviatiliformis* Mohrig & Mamaev, 1987 L
- *longispina* Mohrig & Krivosheina, 1983 L
- *multispina* (Bukowski & Lengersdorf, 1936) !

- *nana* (Winnertz, 1871) !
- *pusilla* (Meigen, 1818) ?
- *vitripennis* (Meigen, 1818) !
- (*Xenopygina* Frey, 1948)
  - *curvilinea* (Lengersdorf, 1934) !
  - *quadrispina* Mohrig & Krivosheina, 1982 L
- Schwenckfeldina* Frey, 1942
  - *carbonaria* (Meigen, 1830) !
    - = *illepida* (Winnertz, 1867)
    - = *indigena* (Winnertz, 1867)
- Sciara* Meigen, 1803
  - *analisis* Schiner, 1864 !
  - *flavimana* Zetterstedt, 1851 !
  - *hebes* (Loew, 1869) L
    - = *marginata* Mohrig & Krivosheina, 1983
    - = *ulrichi* Menzel & Mohrig, 1998
  - *helvola* Winnertz, 1867 !
  - *hemerobioides* (Scopoli, 1763) !
    - = *thomae* (Linnaeus, 1767)
  - *humeralis* Zetterstedt, 1851 !
- Scythropochroa* Enderlein, 1911
  - *radialis* Lengersdorf, 1926 !
- Stenacanthella* Viikamaa & Menzel, 2019
  - *eflagellata* Tuomikoski, 1960 L
- Trichodapus* Mohrig & Menzel, 1997
  - *rhenanus* (Fritz, 1983) L
- Trichosia* Meigen, 1803
  - (*Mouffetina* Frey, 1942)
    - *pulchricornis* (Edwards, 1925) L
  - (*Trichosia* s. str.)
    - *acrotricha* Tuomikoski, 1960 !
    - *confusa* (Menzel & Mohrig, 1997) L N8
      - = *edwardsi* (Lengersdorf) sensu Frey (1948)
    - *flavicoxa* Tuomikoski, 1960 L
    - *glabra* (Meigen, 1830) L
    - *morio* (Fabricius, 1794) L
      - = *trochanterata* (Zetterstedt, sensu Edwards, 1925)
    - *splendens* Winnertz, 1867 L
- Xylosciara* Tuomikoski, 1957
  - (*Protoxylosciara* Tuomikoski, 1960)
    - *longiforceps* (Bukowski & Lengersdorf, 1936) L
  - (*Xylosciara* s. str.)
    - *heptacantha* Tuomikoski, 1957 L
    - *spectabilis* Rudzinski, 1992 !
- Zygoneura* Meigen, 1830
  - *sciarina* Meigen, 1830 !

## Notes

- N1 *Camptochoeta minutula* was published by Schiegg et al. (1999) as new to the Swiss fauna with the erroneous authorship '(Mohrig & Krivosheina, 1978)'; instead of *C. minutula* (Bukowski & Lengersdorf, 1936). However this species was already present in the 1998 Checklist as a synonym of *Corynoptera inundata* Fritz, 1982. It appears however that the name *Corynoptera deserta* Menzel & Heller, 2006 (instead of *C. inundata* Fritz, 1982) must apply in replacement of *C. minutula* (Bukowski & Lengersdorf, 1936), preoccupied (Menzel & Heller 2006).
- N2 *Epidapus (Epidapus) alnicola* (Tuomikoski, 1957) and *E. (E.) lucifugus* (Mohrig, 1970) were considered as of uncertain occurrence in the 1998 Checklist. They have been erroneously recorded again as new to Switzerland under the synonym names *Caenosciara alnicola* Tuomikoski, 1957 and *C. lucifuga* Mohrig, 1970 by Schiegg et al. (1999) and reported as such in Merz et al. (2002).
- N3 *Hemineurina algida* (Frey, 1948) was erroneously considered as a synonym of *Sciara globiceps* (Becher, 1886) (Vilkamaa & Menzel 2019: 10) and accordingly is reinstated in the list.
- N4 *Trichosia trochanterata* was published by Schiegg et al. (1999) as new to the Swiss fauna and reported as such in Merz et al. (2002). However this species was already present in the 1998 Checklist under the valid name *Leptosciarella trochanterata* (Zetterstedt, 1851).
- N5 Although quoted from Austria, one paratype specimen of *Lycoriella acutostylia* was in fact collected in Switzerland. The locality where it was collected 'Österreich: Unterengardien, Ramosch, Barberfalle, 19.8.1981, leg. Thaler' (Menzel et al. 1990: 341) should actually be read 'Unterengadin, Ramosch', which lies in canton Graubünden, Switzerland. Heller et al. (2009: 41) correctly recorded this species as present in Switzerland.
- N6 The author was erroneously quoted as *Lycoriella minutula* (Bukowski & Lengersdorf, 1936) in Schiegg et al. (1999) and in Merz et al. (2002). The correct name for this species is *Lycoriella minutula* Mohrig & Krivosheina, 1987.
- N7 *Dolichosciara flavipes* (Meigen, 1804) and *D. ornata* (Winnertz, 1864) [and not '(Edwards, 1915)' as wrongly stated in Schiegg et al. 1999] have been erroneously added as new for Switzerland in Merz et al. (2002). In fact these species were already present in the 1998 Checklist (Menzel 1998), respectively under the names *Phytosciara flavipes* (Meigen, 1804) and *P. ornata* (Winnertz, 1867). According to the authors, *Dolichosciara* is either regarded as a subgenus of *Phytosciara*, or a genus of its own.
- N8 *Leptosciarella confusa* was published by Schiegg et al. (1999) as new to the Swiss fauna and reported as such in Merz et al. (2002). However this species was already present in the 1998 Checklist under the valid name *Trichosia confusa* Menzel & Mohrig, 1997.

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