

Sphaeroceridae

Paul Gatt (1998 Checklist: László Papp)

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Diagnosis: Minute to small (0.7-5.5mm) generally dark brown to black acalyptrate flies with a short, dilated hind basitarsus. Vibrissae present. Wing with two costal breaks; Sc reduced; venation reduced in Limosininae; wings shortened in some species.

Biology: Larvae are saprophagous on a wide variety of decaying organic matter of both plant (eg. grass, moss, compost, wood debris, leaf litter, fungi, wrack, mud) and animal (e.g. dung, manure, carrion) origin. Adults occur in the larval breeding habitats, usually in damp places. Relatively many species are terricolous and have adapted to live in caves and animal nests and burrows. A few species are partly synanthropic and may reach nuisance values when they emerge in number near human habitations. Several species have become cosmopolitan through human activities.

Nomenclature and classification: According to the world catalogue of Sphaeroceridae (Roháček et al. 2001, Marshall et al. 2011).

Number of species: CH: 117 (1998 Checklist: 108), CZ: 164, DE: 137, DK: 82, ES: 146, FI: 118, IE: 76, IT: 138, NL: 81, PT: 54, SK: 153, UK: 145, Europe: 264, World: 1571.

Level of faunistic knowledge in Switzerland: Moderate. Estimated number of species: 150

General references: Bergeron et al. (2015), Carles-Tolrá (2001), Han & Kim (1990), Kim & Han (1990), Marshall & Richards (1987), Marshall & Roháček (1984), Marshall et al. (2011), Marshall & Smith (1992, 1993), Norrbom & Kim (1985a, 1985b), Papp (1973, 1983, 1984, 2008a, 2008b), Pitkin (1988), Roháček (1982a, 1982b, 1982c, 1983a, 1983b, 1985, 1991, 1993, 1998, 1999, 2001, 2007, 2009, 2016, 2019), Roháček & Florén (1987), Roháček & Košel (2003), Roháček & Marshall (1982, 1986, 1988, 2000), Roháček et al. 2001, Roháček & Papp (1988) [most references with keys].

References to the Swiss fauna: Bächli et al. (2014), Gatt (2006), Merz et al. (2006), Merz & Gatt (2012), Nielsen et al. (2000), Papp (1982, 1985, 1998).

Checklist

Copromyzinae

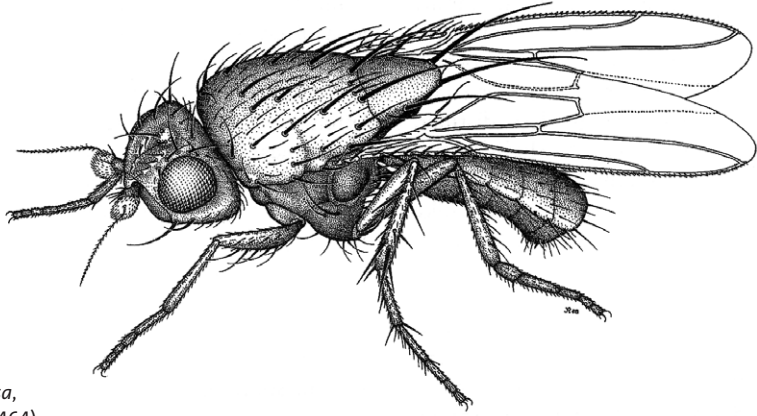
Alloborborus Duda, 1923

- *pallifrons* (Fallén, 1820) !

Borborillus Duda, 1923

- *uncinatus* (Duda, 1923) !

- *vitripennis* (Meigen, 1830) !



Rachispoda limosa,
male (CMPD3, p.464).

Copromyza Fallén, 1810

- *equina* Fallén, 1820 !
- *nigrina* (Gimmerthal, 1847) !
= *similis* (Collin, 1930)
- *pseudostercoraria* L. Papp, 1976 !
- *stercoraria* (Meigen, 1830) !

Crumomyia Macquart, 1835

- *fimetaria* (Meigen, 1830) !
- *glabrifrons* (Meigen, 1830) !
- *glacialis* (Meigen, 1830) !
- *nigra* (Meigen, 1830) !
- *nitida* (Meigen, 1830) !
- *notabilis* (Collin, 1902) !
- *parentela* (Séguy, 1963) !
- *pedestris* (Meigen, 1830) !
- *pruinosa* (Richards, 1932) !
- *rohaceki* (Norrbon & Kim, 1985) !
- *roserii* (Rondani, 1880) !
- *setitibialis* (Spuler, 1925) !
= *freyi* (Hackman, 1965)
- *zuskai* (Roháček, 1976) !

Lotophila Lioy, 1864

- *atra* (Meigen, 1830) !

Norrbonmia Papp, 1988

- *costalis* (Zetterstedt, 1847) !
- *sordida* (Zetterstedt, 1847) !

Limosininae

- Apteromyia* Vimmer, 1929
 - *claviventris* (Strobl, 1909) !
- Bifronsina* Roháček, 1982 N1
 - *bifrons* (Stenhammar, 1855) !
- Chaetopodella* Duda, 1920
 - *scutellaris* (Haliday, 1836) !
- Coproica* Rondani, 1861
 - *acutangula* (Zetterstedt, 1847) !
 - *ferruginata* (Stenhammar, 1855) !
 - *hirticula* (Collin, 1956) !
 - *hirtula* (Rondani, 1880) !
 - *lugubris* (Haliday, 1836) !
 - *pusio* (Zetterstedt, 1847) !
 - *rufifrons* Hayashi, 1991 ! N2 [1]
 - *vagans* (Haliday, 1833) !
- Elachisoma* Rondani, 1880
 - *aterrimum* (Haliday, 1833) !
 - *bajzae* Papp, 1983 !
 - *pilosum* (Duda, 1924) !
- Eulimosina* Roháček, 1983 N3
 - *ochripes* (Meigen, 1830) !
- Gonioneura* Rondani, 1880
 - *spinipennis* (Haliday, 1836) !
- Herniosina* Roháček, 1983
 - *bequaerti* (Villeneuve, 1917) !
- Leptocera* Olivier, 1813
 - *caenosa* (Rondani, 1880) !
 - *fontinalis* (Fallén, 1826) !
 - *nigra* Olivier, 1813 !
 - *oldenbergi* (Duda, 1918) !
- Limosina* Macquart, 1835
 - *silvatica* (Meigen, 1830) !
- Minilimosina* Roháček, 1983
 (*Allolimosina* Roháček, 1983)
 - *alloneura* (Richards, 1952) !
 (*Minilimosina* s.str.)
 - *fungicola* (Haliday, 1836) !
 - *parvula* (Stenhammar, 1855) !
 - *trogeri* Roháček, 1983 !
 (*Svarciella* Roháček, 1983)
 - *egena* Roháček, 1992 !
 - *guestphalica* (Duda, 1918) ! N4
 - *v-atrum* (Villeneuve, 1917) ! N5
 = *splendens* auct. nec (Duda, 1928)
 - *vitripennis* (Zetterstedt, 1847) !

Opacifrons Duda, 1918

- *coxata* (Stenhammar, 1855) !
- *maculifrons* (Becker, 1907) !

Opalimosina Roháček, 1983*(Dentilimosina* Roháček, 1983)

- *denticulata* (Duda, 1924) !

(Hackmanina Roháček, 1983)

- *czernyi* (Duda, 1918) !

(Opalimosina s.str.)

- *mirabilis* (Collin, 1902) !
- *simplex* (Richards, 1929) ! N6 [2]

(Pappiella Roháček, 1983)

- *liliputana* (Rondani, 1880) !

Paralimosina Papp, 1973

- *fucata* (Rondani, 1880) !
- *kaszabi* Papp, 1973 ! N7
- = *latigena* (Roháček, 1977)
- *subcibrata* Roháček, 1992 ! N8 [3]
- *trichopyga* (Richards, 1952) !

Philocoprella Richards, 1929

- *italica* (Deeming, 1964) !

Phthitia Enderlein, 1938*(Collimosina* Roháček, 1983) N9

- *spinosa* (Collin, 1930) !
- = *Kimosina spinosa* (Collin, 1930)

(Kimosina Roháček, 1983) N9

- *plumosula* (Rondani, 1880) !
- = *Kimosina plumosula* (Rondani, 1880)

Pseudocollinella Duda, 1924 N10

- *humida* (Haliday, 1836) !
- = *Opacifrons humida* (Haliday, 1836)
- *jordii* (Carles-Tolrà, 1990) ! N11 [4]
- *septentrionalis* (Stenhammar, 1855) !
- = *Opacifrons septentrionalis* (Stenhammar, 1855)

Pteremis Rondani, 1856

- *fenestralis* (Fallén, 1820) !

Pullimosina Roháček, 1983*(Pullimosina* Roháček, 1983)

- *heteroneura* (Haliday, 1836) !
- *mejerei* (Duda, 1918) !
- *moesta* (Villeneuve, 1918) ! N12 [5]
- *pullula* (Zetterstedt, 1947) !
- *vulgesta* Roháček, 2001 ! N13

Puncticorpus Duda, 1918

- *cribratum* (Villeneuve, 1918) !

Rachispoda Lioy, 1864 N14

- *breviceps* (Stenhammar, 1855) ! N15
- *fuscipennis* (Haliday, 1833) !
 - = *Leptocera fuscipennis* (Haliday, 1833)
- *limosa* (Fallén, 1820) !
 - = *Leptocera limosa* (Fallén, 1820)
- *lutosa* (Stenhammar, 1855) !
 - = *Leptocera lutosa* (Stenhammar, 1855)
- *lutosoidea* (Duda, 1938) !
 - = *Leptocera lutosoidea* (Duda, 1938)
- *modesta* (Duda, 1924) ! N16 [6]
- *segem* (Roháček, 1991) ! N17
- *uniseta* (Roháček, 1991) ! N17
- *varicornis* (Strobl, 1900) !
 - = *Leptocera varicornis* (Strobl, 1900)

Spelobia Spuler, 1924

- *cambrica* (Richards, 1929) !
- *clunipes* (Meigen, 1830) !
- *faeroensis* (Deeming, 1966) !
- *luteilabris* (Rondani, 1880) !
- *manicata* (Richards, 1927) !
- *nana* (Rondani, 1880) !
- *palmata* (Richards, 1927) !
- *parapusio* (Dahl, 1909) !
- *pseudosetaria* (Duda, 1918) !
- *rufilabris* (Stenhammar, 1855) !
- *talis* Roháček, 1983 !
- *talparum* (Richards, 1927) !

Telomerina Roháček, 1983

- *flavipes* (Meigen, 1830) !
- *pseudoleucoptera* (Duda, 1924) !

Terrilimosina Roháček, 1983

- *corrivalis* (Villeneuve, 1918) ! N18
 - = *sudetica* Roháček, 1975
- *racovitzai* (Bezzi, 1911) !
- *schmitzi* (Duda, 1918) !

Thoracochoaeta Duda, 1918

- *zosteriae* (Haliday, 1833) !

Trachyopella Duda, 1920

(*Nudopella* Roháček & Marshall, 1986)

- *leucoptera* (Haliday, 1836) !

(*Trachyopella* s.str.)

- *atomus* (Rondani, 1880) !
- *kuntzei* (Duda, 1918) !
- *lineafrons* (Spuler, 1925) !
- *melania* (Haliday, 1836) !

Sphaerocerinae*Ischiolepta* Lioy, 1864

- *denticulata* (Meigen, 1830) !
- *nitida* (Duda, 1920) !
- *pusilla* (Fallén, 1820) !
- *scabricula* (Haliday, 1836) !
- *vaporariorum* (Haliday, 1836) !

Lotobia Lioy, 1864

- *pallidiventris* (Meigen, 1830) !

Sphaerocera Latreille, 1804

- *curvipes* Latreille, 1805 !
- *monilis* Haliday, 1836 !

Notes

- N1 *Bifronsina* Roháček, 1983 (ex-subgenus of *Spelobia* Spuler, 1924) was elevated to generic rank (Papp 2008b).
- N2 *Coproica rufifrons*: new species record for Switzerland.
- N3 *Eulimosina* Roháček, 1983 (ex-subgenus of *Spelobia* Spuler, 1924) was elevated to generic rank (Papp 2008b).
- N4 *Minilimosina guestphalica* (Duda, 1918) was restituted from synonymy with *M. v-atrum* (Villeneuve, 1917) (Roháček 2001).
- N5 *Minilimosina v-atrum* (Villeneuve, 1917) was misidentified as *M. splendens* (Duda, 1938) in the 1998 Checklist (Papp 1998) and then rectified by Roháček (2001).
- N6 *Opalimosina simplex*: new species record for Switzerland.
- N7 *Paralimosina latigena* (Roháček, 1977) was synonymised with *P. kaszabi* (Papp, 1973) by Roháček (1983a).
- N8 *Paralimosina subcibrata*: new species record for Switzerland.
- N9 Marshall & Smith (1992) synonymised *Alimosina*, *Collimosina* and *Kimosina* with *Phthitia*, but as they, as well as *Phthitia* s.str., represent monophyletic groups, of which the relationship is unresolved, they are retained as subgenera.
- N10 Status of *Pseudocollinella* Duda, 1924 revised by Marshall & Smith (1993).
- N11 *Pseudocollinella jorlii*: new species record for Switzerland.
- N12 Status of *Pullimosina moesta* rectified by Roháček (2001). It was misidentified in the 1998 Checklist (Papp 1998), again in Merz & Gatt (2012) and newly recorded here.
- N13 Status of *Pullimosina vulgata* rectified by Roháček (2001). Replacement name for *P. moesta* auct. nec Villeneuve, 1918.
- N14 *Rachispoda* Lioy, 1864 (ex-subgenus of *Leptocera* Olivier, 1813) was elevated to generic rank and accepted by Roháček et al. (2001).
- N15 *Rachispoda breviceps* was added by Merz & Gatt (2012) and reported by Bächli et al. (2014).
- N16 *Rachispoda modesta*: new species record for Switzerland.
- N17 *Rachispoda segem* and *R. uniseta* were added by Gatt (2006) and reported by Merz et al. (2006).
- N18 *Terrilimosina corivalis* (Villeneuve, 1918) was synonymised with *T. sudetica* (Roháček, 1975) by Roháček (2001).

Species records

- [1] 1M, 3F, Basel tortoise terrarium, 22.10.2003, leg. ?
- [2] 1F, Unteriberg, O. Weid, 1600 m., 24.6.2001, leg. Bernhard Merz
- [3] 1F, TI, Monte San Giorgio, 1097 m., 18.5.2006, leg. Bernhard Merz
- [4] 1M, TI, TI, S. Antonino, 7.1995, leg. Max Hächler
- [5] 1M, Bern, Ostermundigen-Berg, 600 m., 20.5.2001, leg. Bernhard Merz
- [6] 1M, TI, Gordola, Bolle di Magadino, 19.5.2006, leg. Bernhard Merz

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