

## Drosophilidae

Gerhard Bächli (1998 Checklist: Gerhard Bächli)

Last update: Jul 2024

**Diagnosis:** Very small to small flies, length 1.5-7.0 mm. Head usually with reddish eyes (when alive); antennae with branched, plumose or micro-pubescent arista; frons with one proclinate and two reclinate orbital setae; face usually with distinct carina. Body pruinose or shiny, ranging in colour from bright yellow, usually with black to brownish pattern, or almost entirely black with some whitish markings on head and thorax. Wings with humeral and subcostal breaks in costa, cross-veins r-m and dm-cu present, anal vein present though sometimes short. Legs simple, males may have short combs of strong bristles on tarsal segments (sex combs). Abdomen often with pattern of paler and darker markings.

**Biology:** Larvae of most species live on micro-organisms in slime fluxes or sap runs, in decaying fruits, mushrooms and other decomposing or fermenting organic matter; some *Scaptomyza* larvae are leaf miners; *Cacoxenus* larvae are parasitoids in nests of solitary bees (e.g. *Osmia rufa*); *Acletoxenus* larvae predate on larvae of Aleyrodidae (whiteflies). Adults of most species can readily be found near larval habitats.

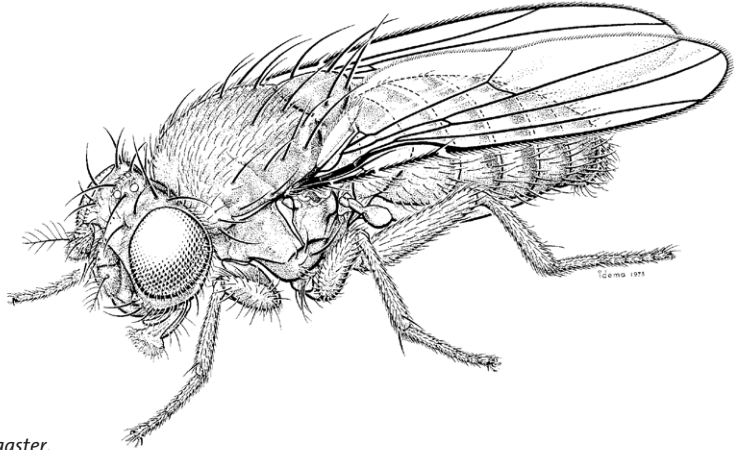
**Nomenclature and classification:** According to Bächli et al. (2004).

**Number of species:** CH: 75 (1998 Checklist: 65),  
BE: 59, CZ: 75, DE: 48, IT: 44, NL: 48, UK: 29, Europe: 124, World: > 4000.

**Level of faunistic knowledge in Switzerland:** Good.

**General references:** Bächli & Burla (1985) [key], Bächli (1997, 1988b), Bächli et al. (2004) [key, biology, systematics].

**References to the Swiss fauna:** Bächli & Burla (1985), Bächli (1997, 1998a), Merz et al. (2002, 2006), Bächli et al. (2014), Widmann & Bächli (2022).



*Drosophila melanogaster*,  
female (MND2, p. 1011).

## Checklist

### Drosophilinae

*Chymomyza* Czerny, 1903

- *amoena* (Loew, 1892) !
- *caudatula* Oldenberg, 1914 !
- *costata* (Zetterstedt, 1838) !
- *distincta* (Egger, 1862) !
- *fuscimana* (Zetterstedt, 1838) !

*Drosophila* Fallén, 1823

(*Dorsilopha* Sturtevant, 1942)

- *busckii* Coquillett, 1901 !

(*Drosophila* s.str.)

- *curvispina* Watabe & Toda, 1984 !
- *funnebris* (Fabricius, 1787) !
- *histrion* Meigen, 1830 !
- *hydei* Sturtevant, 1921 !
- *immigrans* Sturtevant, 1921 !
- *kuntzei* Duda, 1924 !
- *limbata* von Roser, 1840 !
- *littoralis* Meigen, 1830 !
- *mercatorum* Patterson & Wheeler, 1942 ! N1
- *nigrosparsa* Strobl, 1898 !
- *phalerata* Meigen, 1830 !
- *picta* Zetterstedt, 1847 !
- *repleta* Wollaston, 1858 !
- *testacea* von Roser, 1840 !

- *transversa* Fallén, 1823 !
- *unimaculata* Strobl, 1983 !
- (*Sophophora* Sturtevant, 1939)
  - *alpina* Burla, 1948 !
  - *ambigua* Pomini, 1940 !
  - *bifasciata* Pomini, 1940 !
  - *helvetica* Burla, 1948 !
  - *melanogaster* Meigen, 1830 !
  - *obscura* Fallén, 1823 !
  - *simulans* Sturtevant, 1919 !
  - *subobscura* Collin, 1936 !
  - *subsilvestris* Hardy & Kaneshiro, 1968 !
  - *suzukii* (Matsumura, 1931) !
  - *tristis* Fallén, 1823 !
- Hirtodrosophila* Fronta-Pessoa, 1954
  - *cameraria* Haliday, 1833 !
  - *confusa* Staeger, 1844 !
  - *oldenbergi* Duda, 1924 !
- Lordiphosa* Basden, 1961
  - *acuminata* (Collin, 1952) !
  - *andalusiaca* (Strobl, 1906) !
  - *fenestrarum* (Fallén, 1823) !
  - *hexasticha* (Papp, 1971) !
  - *miki* (Duda, 1924) !
  - *nigricolor* (Strobl, 1898) !
- Microdrosophila* Malloch, 1921  
(*Microdrosophila* s.str.)
  - *congesta* (Zetterstedt, 1847) !
- Mycodrosophila* Oldenberg, 1914
  - *poecilogastra* (Loew, 1874) ! [1]
- Scaptodrosophila* Duda, 1924
  - *deflexa* (Duda, 1924) !
  - *rufifrons* (Loew, 1873) !
- Scaptomyza* Hardy, 1850  
(*Parascaptomyza* Duda, 1924)
  - *adusta* (Loew, 1862) !
  - *pallida* (Zetterstedt, 1847) !
- (*Scaptomyza* s.str.)
  - *flava* (Fallén, 1823) !
  - *graminum* (Fallén, 1823) !

### Steganinae

- Acletoxenus* von Frauenfeld, 1868
  - *formosus* (Loew, 1864) !
- Amiota* Loew, 1862  
(*Amiota* s.str.)

- *albilabris* (Roth in Zetterstedt, 1860) !
- *alboguttata* (Wahlberg, 1839) !
- *basdeni* Fonseca, 1965 !
- *filipes* Máca, 1980 !
- *flavopruinosa* Duda, 1934 !
- *rufescens* (Oldenberg, 1914) !

*Cacoxenus* Loew, 1858*(Cacoxenus s.str.)*

- *indagator* Loew, 1858 !

*Gitona* Meigen, 1830

- *distigma* Meigen, 1830 !

*Leucophenga* Mik, 1886*(Leucophenga s.str.)*

- *helvetica* Bächli, Vilela & Haring, 2002 !
- *hungarica* Papp, 2000 !
- *maculata* (Dufour, 1839) !
- *quinquemaculata* Strobl, 1893 !

*Paracacoxenus* Hardy, 1960

- *argyreator* Frey, 1932 !
- *exiguus* Duda, 1934 !
- = *inquilinus* Hendel, 1933 N2
- *macai* Bächli & Vilela, 2020 ! N3

*Phortica* Schiner, 1862*(Phortica s.str.)*

- *semivirgo* Máca, 1977 !
- *variegata* (Fallén, 1823) !

*Stegana* Meigen, 1830*(Stegana s.str.)*

- *furta* (Linnaeus, 1767) !
- (Steganina* Wheeler, 1960)
- *baechlii* Laštovka & Máca, 1982 !
  - *coleoprata* (Scopoli, 1763) !
  - *hypoleuca* Meigen, 1830 !
  - *longifibula* Takada, 1968 !
  - *nigrithorax* Strobl, 1898 !
  - *similis* Laštovka & Máca, 1982 !

**Notes**

- N1 *Drosophila mercatorum*: new record by Widmann & Bächli (2022).  
 N2 *Paracacoxenus inquilinus*: synonymised with *Paracacoxenus exiguus* by Bächli & Vilela (2011).  
 N3 *Paracacoxenus macai*: new record by Bächli & Vilela (2020).

**Species records**

- [1] TI, Lugano/Davesco: Via Navrée 25, Bosco-prato semi natural, 18.11.2015, 500 m., leg. Lucia Pollini Paltrinieri (MCSN)

## References

- Bächli G. 1997. Neue Drosophiliden-Arten für die Fauna der Schweiz. Mitteilungen der Entomologischen Gesellschaft Basel 46(1996): 135-138.
- Bächli G. 1998a. 94. Drosophilidae. In: Merz B., Bächli G., Haenni J.-P. & Gonseth Y. (eds). Diptera - Checklist. Fauna Helvetica 1: 304-305. CSCF / SEG, Neuchâtel, 369 pp.
- Bächli G. 1998b. 3.45. Family Drosophilida. In: Papp L. & Darvas B. (eds). Contributions to a Manual of Palaearctic Diptera (with special reference to flies of economic importance). Vol. 3, Higher Brachycera: 503-513. Science Herald, Budapest, 880 pp.
- Bächli G. & Burla H. 1985. Diptera Drosophilidae. Insecta Helvetica Fauna 7, CSCF, 116 pp.
- Bächli G & Vilela C.R. 2011. On the identities of *Paracacoxenus exiguus* (Duda) and *Paracacoxenus inquilinus* (Hendel), with the description of a new *Paracacoxenus* species from Italy (Diptera, Drosophilidae). Mitteilungen der Schweizerischen Entomologischen Gesellschaft 84: 113-119.
- Bächli G. & Vilela C.R. 2020. On the identity of *Paracacoxenus kaszabi* Okada, with the formal description of a new closely related species (Diptera, Drosophilidae). Alpine Entomology 4: 1-20.
- Bächli G., Merz B. & Haenni J.-P. 2014. Dritter Nachtrag zur Checkliste der Diptera der Schweiz. Entomo Helvetica 7: 119-140.
- Bächli G., Vilela C.R., Escher S.A. & Saura A. 2004. The Drosophilidae (Diptera) of Fennoscandia and Denmark. Fauna Entomologica Scandinavica. Vol. 39. Brill, Leiden and Boston, 362 pp.
- Merz B., Bächli G. & Haenni J.-P. 2002. Erster Nachtrag zur Checkliste der Diptera der Schweiz. Mitteilungen der Entomologischen Gesellschaft Basel 51(3-4)(2001): 110-140.
- Merz B., Bächli G. & Haenni J.-P. 2006. Zweiter Nachtrag zur Checkliste der Schweiz. Mitteilungen der Entomologischen Gesellschaft Basel 56(4): 135-165.
- Widmann C. & Bächli G. 2022. Première observation de *Drosophila mercatorum* Patterson & Wheeler, 1942 en Suisse (Diptera: Drosophilidae). Entomo Helvetica 15: 65-72.