

## Lonchaeidae

Iain MacGowan (1998 Checklist: Bernhard Merz & Gerhard Bächli)

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**Diagnosis:** European Lonchaeidae are small, stout-bodied, setulose acalyprate flies (body length: 3-6 mm) with broad wings, body usually shiny blue-black; head wide and high; thorax broad; abdomen broad and flat; tibiae without strong setae; wing usually hyaline, occasionally slightly fumose but never patterned; halter invariably black. The single European species in the genus *Lamprolonchaea* Bezzi, 1920 (not yet recorded from Switzerland) has a metallic blue-green body colour. Lonchaeidae always have black halteres and lack setae on the shaft of tibiae, they superficially resemble some small Muscidae but are separable by the absence of a complete transverse suture on the mesonotum. They are sometimes also confused with Agromyzidae, but differ in having a longer cell *dm* (shorter than distal section of vein *M* in Agromyzidae) and with black, shiny species of Lauxaniidae but these have 2 pairs of lateral setae on the head and usually white halteres. Female Lonchaeidae with their sclerotized telescopic ovipositor have given rise to the vernacular name of the family « lance flies ».

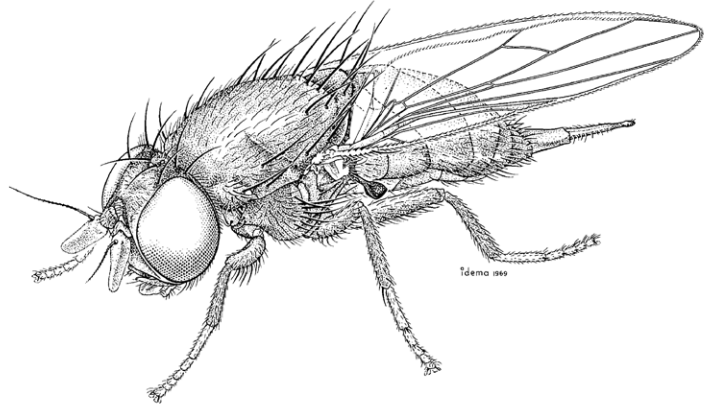
**Biology:** Adults of *Lonchaea* Fallén, 1820 are predominantly associated with woodland environments where the larvae are almost exclusively saproxylic, developing under the bark or in the decaying heartwood of fallen trees. Many *Dasiops* Rondani, 1856 species also develop in this dead wood habitat but others develop in plant stems or form galls on grasses. The larvae of several *Earomyia* Zetterstedt, 1842 species feed on the seeds within conifer cones whilst another group is associated with flower heads and stems of herbaceous plants. *Priscoearomyia* Morge, 1963 and *Chaetolonchaea* Czerny, 1934 adults are mainly associated with meadows and grasslands where the larvae utilise plant stems or bulbs. Of the two European *Silba* Macquart, 1851 species, *S. fumosa* breeds in a wide variety of decaying plant material, while *S. adipata* (the black fig-fly) is a pest of cultivated figs.

Adult lonchaeids are unusual amongst acalyprates in that they form aerial mating swarms and such behaviour has been observed in all European genera. The large eyes and broad thorax, containing large flight muscles, are an adaptation for this form of mating behaviour. Otherwise, lonchaeids are often relatively slow-moving, females usually being observed, or captured, at their preferred oviposition sites, males being less frequently encountered, unless obtained from reared material.

**Nomenclature and classification:** Nomenclature and classification follow MacGowan (2023). The ten genera of Lonchaeidae are classified in two subfamilies. In Europe, the following genera are present: Dasiopininae – *Dasiops*. Lonchaeinae – *Priscoearomyia*, *Chaetolonchaea*, *Earomyia*, *Lamprolonchaea*, *Lonchaea* and *Silba*.

**Number of species:** CH: 49 (1998 Checklist: 31),  
BE: 46, CZ: 61, DE: 34, FR: 52, IT: 23, NL: 34, UK: 51, Europe: 107, World: 611.

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



*Lonchaea polita*,  
female, not present in Switzerland (MND2, p.791).

**General references:** Morge (1963) [key], MacGowan & Rotheray (2008), MacGowan (2019), MacGowan (2023).

**References to the Swiss fauna:** Merz & Bächli (1998), Merz et al. (2006), MacGowan et al. (2007), Bächli et al. (2014), MacGowan & Bächli (2016).

## Checklist

### Dasiopininae

*Dasiops* Rondani, 1856

- *appendiculus* Morge, 1959 !
- *calvus* Morge, 1959 !
- *facialis* (Collin, 1953) !
- *latifrons* (Meigen, 1826) !
- *mucronatus* Morge, 1959 !
- *solivagus* Morge, 1959 !

### Lonchaeinae

*Chaetolonchaea* Czerny, 1934

- *dasyops* (Meigen, 1826) !
- *pallipennis* (Zetterstedt, 1855) !

*Earomyia* Zetterstedt, 1842

- *crystallophila* (Becker, 1895) L N1
- *impossibile* Morge, 1959 !
- *lonchaeoides* Zetterstedt, 1848 !

- *schistopyga* Collin, 1953 !

- *viridana* (Meigen, 1826) !

*Lonchaea* Fallén, 1820

- *affinis* Malloch, 1920 !

- *albitarsis* Zetterstedt, 1837 !

- *bruggeri* Morge, 1967 !

- *bukowskii* Czerny, 1934 ! N2

- *caledonica* MacGowan & Rotheray, 2000 !

- *carpathica* Kovalev, 1974 !

- *caucasica* Kovalev, 1974 !

- *chorea* (Fabricius, 1781) !

- *collini* Hackman, 1956 !

- *contigua* Collin, 1953 !

- *contraria* Czerny, 1934 !

- *deutschii* Zetterstedt, 1837 !

- *fugax* Becker, 1895 !

- *helvetica* MacGowan, 2002 !

- *hirticeps* Zetterstedt, 1837 !

- *hyalipennis* Zetterstedt, 1847 !

- *lateralis* MacGowan, 2016 !

- *mallochi* MacGowan & Rotheray, 2000 !

- *nitens* (Bigot, 1885) !

- *nitidissima* Kovalev, 1978 !

- *palposa* Zetterstedt, 1847 !

- *patens* Collin, 1953 !

- *peregrina* Becker, 1895 !

- *postica* Collin, 1953 !

- *scutellaris* Rondani, 1874 !

- *seitneri* Hendel, 1928 !

- *spicata* MacGowan, 2008 !

- *sylvatica* Beling, 1873 !

- *tarsata* Fallén, 1820 !

- *tenuicornis* Kovalev, 1978 ! N2

- *zetterstedti* Becker, 1902 !

*Priscoearomyia* Morge, 1963 N3

- *grecciana* (McAlpine, 1983) ! N2

- *nigra* (Meigen, 1826) !

- *withersi* (MacGowan, 2014) !

*Silba* Macquart, 1851

- *adipata* McAlpine, 1956 ! N2

- *fumosa* (Egger, 1862) ! N4

## Excluded species

*Lonchaea laxa* Collin, 1953 N5

*Lonchaea sororcula* Hackman, 1956 N5

*Lonchaea stackelbergi* Czerny, 1934 N5

*Lonchaea stigmatica* Czerny, 1934 N5

## Notes

- N1 *Earomyia crystallophila* recorded in Switzerland according to Catalogue of Palaearctic Diptera, Vol. 9, p. 251. Not recorded again.
- N2 *Lonchaea bukowskii*, *L. tenuicornis*, *Priscoearomyia greciana*, *Silba adipata*: specimens seen but not published yet.
- N3 *Protearomyia* McAlpine replaced by *Priscoearomyia* Morge with subsequent changes to species (MacGowan 2023).
- N4 *Silba fumosa*: revised by MacGowan & Okamoto (2013).
- N5 *Lonchaea laxa*, *L. sororcula*, *L. stackelbergi*, *L. stigmatica*: removed from the Swiss list by MacGowan & Bächli (2016).

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