

Canacidae

Lorenzo Munari † (1998 Checklist: absent)

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Diagnosis: The family Canacidae *sensu lato*, i.e., including the formerly Tethinidae (these two taxa have very recently been merged into a single, inclusive family [McAlpine 2007]), is distinguished from other families of Carnoidea by the following combination of characters: primarily occurring in saline habitats (secondarily in freshwater habitats); minute to small flies, body length 0.91-5.0 mm. Head with postocellar (= post-vertical) setae usually developed; posterior fronto-orbital seta laterocline; vibrissae weakly differentiated; antennal arista dorsal; face strongly depressed and short, or with more or less obvious medial carina, or distinctly convex; gena generally bare, except for ventral or nearly ventral row of setae (peristomal setae), or with many tiny setulae (most Pelomyiinae), or even with a few anaclinate, strong setae (Canacinae). Thorax with precoxal bridge developed; prescutellar acrostichal setae usually developed; presutural dorsocentral setae differentiated; anepisternum with 2-3 developed posterior setae, also bearing a dorsocline seta at posterodorsal corner; 1 katepisternal seta usually present; proepisternal seta developed. Wing generally hyaline, bearing fine, dense microtrichia; subcosta usually weakened apically, close to vein R₁; vein CuA+CuP short; vein A₁ long, present as a fold. Abdomen with pregenital sclerites of male short and fused; postabdomen of female more or less retracted telescopically.

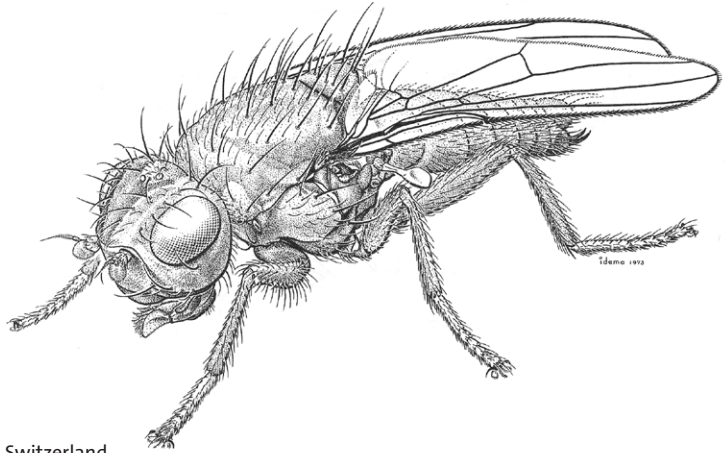
Biology: The biology and immature stages of the family are very poorly known. Canacidae (except Pelomyiinae) are mostly halobionts and, in many cases, thalassobiont flies, occurring mainly in coastal marine habitats. Adults of thalassobiont species are commonly found in the intertidal and supralittoral zones, wrack heaps (usually brown algae that are most abundant along temperate seashores bathed by cold currents), salt marshes, dune vegetation, lagoon-litoriparian zones, mangroves and on saline soils or bare sand. Various species of the genus *Tethina* also inhabit desert oases and other inland environments sometimes hundreds of kilometres from sea coasts (Beschovski & Nartshuk 1997; Munari 2005). Species of Pelomyiinae (to which the only species occurring in Switzerland belongs) are found mainly in inland damp habitats and occur in maritime environments only occasionally. The canacid flies apparently have no significant economic or medical importance.

Nomenclature and classification: According to Munari & Mathis (2010). The family is mentioned in Merz et al. (2002) under Tethinidae. The actual family name is Canacidae.

Number of species: CH: 1 (1998 Checklist: 0),

BE: 1, DE: 7, CZ: 3, IT: 3, NL: 7, UK: 7, Europe: 37 (incl. Canary Islands and Madeira), World: 320.

Level of faunistic knowledge in Switzerland: Medium. *Pelomyia* Williston 1893 is a primarily New World genus with many species described from the Neotropical Region. Of the 29 described species worldwide, only one species, *Pelomyia occidentalis* Williston 1893, occurs in the Palearctic Region and is the sole species of the entire family



Canacee macateei,
male, not present in Switzerland
(MND2, p.1079).

Canacidae recorded from Switzerland. However, in the genus *Pelomyiella* Hendel 1934, three species, i.e., *P. cinerella* (Haliday 1837), *P. hungarica* (Czerny 1928) and the common *P. mallochi* (Sturtevant 1923) are expected to be found.

General references: Hendel (1934) [revision], Foster & Mathis (2003) [revision of *Pelomyia*], McAlpine (2007) [suprageneric reassessment], Munari (2011) [key to Euro-Mediterranean genera and species], Munari & Mathis (2010) [world catalogue].

References to the Swiss fauna: Merz et al. (2002).

Checklist

Pelomyia Williston, 1893
- *occidentalis* Williston, 1893 ! N1

Notes

N1 *Pelomyia occidentalis* was mentioned by Merz et al. (2002) under the family Tethinidae, but the actual family name is Canacidae.

References

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