

Keroplastidae

Peter J. Chandler (1998 Checklist: Loïc Matile)

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Diagnosis: Medium to large (3-15 mm), slender to relatively stout gnats, variously marked with yellow, brown or black colouration, and with a characteristic wing venation in which crossvein r-m is absent and replaced by a short radiomedial fusion (an exception to this is *Paleoplatyura*, recently recorded as new to Europe from Sicily (Mantič & Ševčík 2017)). Head small; mouthparts sometimes elongate; three ocelli present; antenna usually with 2+14 segments (a few species with a reduced number of flagellomeres), ranging from relatively short and sometimes (in Keroplastini) with laterally compressed segments, to very slender and up to several times longer than the body (in *Macrocera*). Thorax humpbacked. Wing relatively wide, clear or with various dark markings; usually without macrotrichia (present in some *Macrocera*); vein Sc ending in costa; vein R_{2+3} short and ending in costa (ending in R_1 in *Keroplastus* and *Platyura*) or absent; M_{1+2} with short stem before median fork; a short vein bm-m links base of radiomedial fusion with base of M_4 and with a short crossvein m-Cu that meets CuA well beyond its base; anal lobe weakly developed, except in *Macrocera* where it is broad and angular. Coxae elongate; tibiae with apical spurs. Abdomen usually narrow.

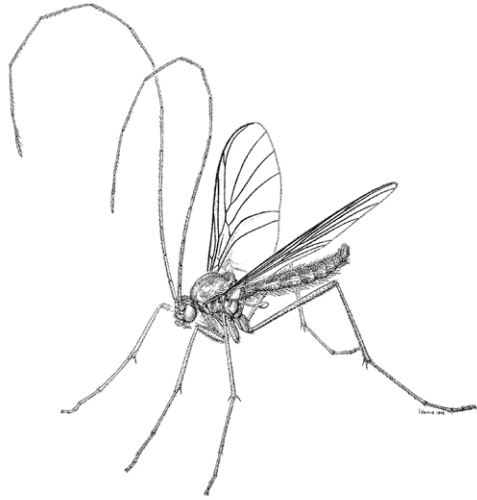
Biology: Poorly known for most genera. Known larvae are predaceous or mycophagous, living in webs they construct and are usually found in moist woodland. They are usually light coloured (sometimes with dark markings) with a darker sclerotised head capsule, and are apneustic (without functioning spiracles). Some larvae form webs under bracket fungi, where they feed on spores collected in their web (e.g. *Keroplastus*), while the predatory species form webs on various substrates and catch small invertebrates in their web, in which case acids may be used to kill their prey. *Macrocera* larvae are found under tree bark or below moist fallen dead wood. The adults are found near the larval habitats, but the biology of some species that usually occur in open habitats is unknown, including those genera with an elongate proboscis (*Antlemon*, *Asindulum*, *Macrorrhyncha*) which visit flowers, where they feed on nectar. Species of *Macrocera* may be observed on leaves, standing high on their legs and holding their wings slightly spread out.

Nomenclature and classification: According to Fauna Europaea (Chandler 2005), with minor changes, including recognition of subfamily Platyurinae by Mantič et al. (2020).

Number of species: CH: 48 (1998 Checklist: 45),

AT: 26, BE: 42, CZ: 60, DE: 56, FR: 62 [3 Corsica only], GB: 51, HU: 38, IT: 59 [8 Sardinia or Sicily only], NL: 39, SK: 47, Europe: 123, World: ~1000.

Level of faunistic knowledge in Switzerland: Moderate. Eleven additional species of *Macrocera* and twelve in other genera have been recorded from adjacent countries, so between 70 and 80 species of the family could be expected to occur in Switzerland.



Macrocera variola,
male, not present in Switzerland (MND1, p. 223).

General references: Chandler et al. (2006) [key, *Macrorrhyncha*], Evenhuis (2006) [world catalogue], Hutson et al. (1980) [keys, British species], Matile (1990) [monograph with keys to genera of Macrocerinae and Keroplastini], Sjøli et al. (2000) [keys, Palearctic genera], Zaitzev (1994) [keys, Russian species].

References to the Swiss fauna: Chandler & Blasco-Zumeta (2001), Matile (1998).

Checklist

Keroplastinae

Antlemon Haliday, 1871

(*Antlemonopsis* Tollet, 1953)

- *brevimanum* (Loew, 1871) !
- *servulum* (Walker, 1836) !

Asindulum Latreille, 1805

- *nigrum* Latreille, 1805 !

Cerotelion Rondani, 1856

- *racovitzae* Matile & Burghele-Balacesco, 1969 !
- *striatum* (Gmelin, 1792) !
- = *lineatum* auct.

Isoneuromyia Brunetti, 1912

- *pseudochracea* Landrock, 1927 !
- *semirufa* (Meigen, 1818) !
- = *baumhaueri* Meigen, 1818

Keroplatus Bosc, 1792

- *reaumurii* (Dufour, 1839) !
- *testaceus* (Dalman, 1818) !

Macrorrhyncha Winnertz, 1846

- *ancae* Matile, 1975 !
- *collarti* (Tollet, 1955) !
- = *exempla* Plassmann, 1978
- *flava* Winnertz, 1846 !

Monocentrotia Edwards, 1925

- *lundstromi* Edwards, 1925 !

Neoplatyura Malloch, 1928

- *flava* (Macquart, 1826) !
- *modesta* (Winnertz, 1864) !
- *nigricauda* (Strobl, 1893) !

Orfelia Costa, 1857

- *bicolor* (Macquart, 1826) ! [1]
- *discoloria* (Meigen, 1818) !
- *fasciata* (Meigen, 1804) !
- *lugubris* (Zetterstedt, 1851) ! N1
- = *tristis* (Lundström, 1911)
- *nemoralis* (Meigen, 1818) !
- *nigricornis* (Fabricius, 1805) !
- *ochracea* (Meigen, 1818) ! N2
- = *unicolor* (Staeger, 1840)
- *persimilis* Caspers, 1991 !

Pyratula Edwards, 1929

- *alpicola* Chandler, 2001 !
- *oracula* Chandler, 1994 !
- *subcanariae* Chandler, 2001 !
- *zonata* (Zetterstedt, 1855) !

Rocetelion Matile, 1988

- *humerale* (Zetterstedt, 1850) !

Rutylapa Edwards, 1929

- *ruficornis* (Zetterstedt, 1851) !

Urytalpa Edwards, 1929

- *dorsalis* (Staeger, 1840) ! N2
- = *ochracea* (Meigen, 1818)
- *rhapsodica* Chandler, 1995 !

Macrocerinae*Macrocera* Meigen, 1803

- *anglica* Edwards, 1925 !
- *angulata* Meigen, 1818 !
- *centralis* Meigen, 1818 !
- *fasciata* Meigen, 1804 !
- *inversa* Loew, 1869 !

- = *bipunctata* Edwards, 1925
- *lutea* Meigen, 1804 !
- *nigricoxa* Winnertz, 1864 !
 - = *tusca* Loew, 1869
- *parva* Lundström, 1914 !
- *phalerata* Meigen, 1818 !
- *pilosa* Landrock, 1917 !
- *pumilio* Loew, 1869 !
- *pusilla* Meigen, 1830 !
 - = *nana* auct. nec Macquart, 1826
- *stigma* Curtis, 1837 !
- *stigmoides* Edwards, 1925 !
- *vittata* Meigen, 1830 !

Platyurinae

Platyura Meigen, 1803

- *marginata* Meigen, 1804 !

Excluded species

Pyratula perpusilla (Edwards, 1913) N3

Notes

- N1 Kjærandsen et al. (2007) placed *Orfelia tristis* (Lundström, 1911) in synonymy with *O. lugubris* (Zetterstedt, 1851).
- N2 Kjærandsen et al. (2009) established that the name *Platyura ochracea* Meigen, 1818 correctly applied to *Orfelia unicolor* (Staeger, 1840) and that the valid name for the *Urytalpa* species previously known as *ochracea* was *U. dorsalis* (Staeger, 1840).
- N3 *Pyratula perpusilla* (Edwards, 1913) should be removed from the list as Swiss material of this group has been referred to as *P. alpicola*, *P. oracula* and *P. subcanariae* by Chandler & Blasco-Zumeta (2001).

Species records

- [1] 1M, T1, Biasca, 16.6.1995, leg. Bernhard Merz (CGB)

References

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