

Type species designations for five Hermann Loew genus-group names (Diptera: Asilidae, Heleomyzidae, Platystomatidae, Tephritidae)

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Abstract. A study of the genus-group names proposed by Hermann Loew has shown that five of them are currently without designated type species: *Allophyla* Loew, 1862 (Heleomyzidae), *Dasyllis* Loew, 1851 (Asilidae), *Eccoptomera* Loew, 1862 (Heleomyzidae), *Epicausta* Loew, 1862 (Platystomatidae), and *Hemilea* Loew, 1861 (Tephritidae). Type species are herein designated for each genus-group name to fix their nomenclatural and taxonomic status.

Key words: Nomenclature, taxonomy, Heleomyzidae, Asilidae, Platystomatidae, Tephritidae

INTRODUCTION

As part of an ongoing series of studies on genus-group names of older authors (see e.g., Evenhuis & Pape 2019), research into the genus-group names of Hermann Loew is being conducted. During that research, it was found that five names proposed by Loew are without a type species fixation. For some, an earlier work was found that made the name available but without type fixation, and for the others the current type species was not originally included and therefore not eligible. These five nominal genus-group names are listed here, and type species designated for each.

TYPE-SPECIES DESIGNATIONS

The format of presentation of each name follows that of Evenhuis & Pape (2019) so as to give complete data on originally included species, type species, current status, family, and remarks explaining the typification of each name. Dates and pages within square brackets [] in a header for a genus-group name are subsequent papers by the same author treating the nominal taxon as new but not considered homonymous.

Allophyla Loew, 1862a: 127 [1862b: 227; 1862c: 7, 16, 43].

ORIGINALLY INCLUDED SPECIES: None.

FIRST INCLUDED SPECIES: *Allophyla laevis* Loew, 1862; *Helomyza nigricornis* Meigen, 1838 (as “*Allophylae nigricorni* Meig.”) (in Loew 1862b: 43).

TYPE SPECIES: *Allophyla laevis* Loew, 1862, by **present designation**.

CURRENT STATUS: Valid genus [*teste* Poole (1996: 171)].

FAMILY: HELEOMYZIDAE.

REMARKS: Previous catalogs [e.g., Gill (1965: 809); Gorodkov (1984b: 34)] listed the work in which *Allophyla* was first proposed as by Loew (1862c) and the type species as *Heleomyza atricornis* Meigen, 1830, by monotypy. Since no publication date other than the year has been found for Loew (1862c), it must date from 31 December 1862. Research conducted in this study found an earlier work (Loew, 1862a: 127) that gives characters to make the genus-group name available there; however, no species were originally included in that work. The first subsequently included species in *Allophyla* are found in Loew (1862b: 227–228). A subsequent designation is needed from these first two included species. *Allophyla laevis* Loew, 1862 is currently treated in *Suillia* Robineau-Desvoidy, 1830 [teste Poole (1996: 171)]; and *Helomyza nigricornis* Meigen, 1838 is currently treated in *Tephrochlamys* Loew, 1862 [teste Gorodkov (1984: 44)]. As no valid subsequent designation could be found for the species included in Loew (1862b), I here designate *Allophyla laevis* Loew, 1862 as type species by **present designation**. Coquillett (1910: 505) designated *Helomyza atricornis* Meigen, 1830, which was followed by Gill (1965: 809), Gorodkov (1984: 34), and Mun & Suh (2019: 401), but this is not one of the two first included species in Loew (1862b), and therefore is not eligible. Czerny (1904: 285) in remarking upon Loew's (1862b: 228) "Nota" indicated that Loew's "*nigricorni*" Meigen [Loew's use of the name in the nominative plural] was an error for "*atricorni*" Meigen but gave no evidence why. The two species-group names are currently both available in Heleomyzidae, so Loew could have meant either. Because of the equivocal nature of the identity of Loew's *Heleomyza nigricornis*, I feel it prudent to designate *Allophyla laevis* Loew, 1862. The generic concept of *Allophyla* apparently has two schools of thought, based zoogeographically: the New World school where it is treated as a valid genus, e.g., Gill (1965), Griffiths (1972), and Poole (1996); and an Old World school where it is treated as a junior synonym of *Suillia* Robineau-Desvoidy, 1830, e.g., Gorodkov (1984) and Mun & Suh (2019: 401). Based on the work of Griffiths (1972), who gave apomorphic character states defining the genus [based on using *Allophyla laevis*] and distinguishing it from *Suillia*, and the fact that the type species designated herein is Nearctic, I follow the New World treatment of *Allophyla* Loew, 1862 as a valid genus. It may be that *Helomyza atricornis* Meigen, 1830 (treated as *Allophyla* by New World workers) is a true *Suillia* and *Allophyla laevis* is the sole member of *Allophyla*. More taxonomic work on the two species and their close relatives is needed to corroborate their generic placement.

Dasyllis Loew, 1851: 20.

ORIGINALLY INCLUDED SPECIES: *Laphria haemorrhoea* Fabricius, 1805; *Laphria croceiventris* Wiedemann, 1821; *Laphria nigripennis* Wiedemann, 1830; *Laphria bomboides* Loew, 1851.

TYPE SPECIES: *Laphria croceiventris* Wiedemann, 1821, by **present designation**.

CURRENT STATUS: Valid genus [teste Papavero (2009: 82)].

FAMILY: ASILIDAE.

REMARKS: Originally proposed as a subgenus of *Laphria* Meigen, 1803. Previous workers [e.g., Hull (1962: 358), Martin & Papavero (1970: 45), and Papavero (2009: 82)] have given the typification for *Dasyllis* as *Laphria haemorrhoea* Wiedemann, 1830 by original designation; however, this is incorrect because that was not one of the orig-

inally included species. Loew's (1851: 20) statement "*Typisch für die erste Gruppe der Dasyllis-Arten ist Laphr. haemorrhoea Fabr.*" could be construed as Loew misidentifying the Fabrician *haemorrhoea* as Wiedemann's *haemorrhoea*, but even then, a designation was not made for the entire genus, only his first "*Gruppe*". Moreover, Loew on the next page (1851: 21) designated *Laphria bomboides* Loew, 1851 as the type for his second "*Gruppe*" of *Dasyllis*; so there were two type designations made by Loew (1851). As no valid type designation has yet been published for the genus as a whole, I here select *Laphria croceiventris* Wiedemann, 1830 as the type species of *Dasyllis* Loew, 1851 by **present designation**, which does not change the current generic concept.

Eccoptomera Loew, 1862a: 127 [1862c: 8, 47].

ORIGINALLY INCLUDED SPECIES: *Eccoptomera ornata* Loew, 1862; *Eccoptomera filata* Loew, 1862; *Eccoptomera excisa* Loew, 1862; *Eccoptomera emarginata* Loew, 1862.

TYPE SPECIES: *Eccoptomera emarginata* Loew, 1862, by **present designation**.

CURRENT STATUS: Valid genus [*teste* Kahanpää (2014: 322)].

FAMILY: HELEOMYZIDAE.

REMARKS: Previous catalogs [e.g., Gill (1965: 814)] have listed the work in which *Eccoptomera* was first proposed as Loew (1862c). Since no publication date other than the year has been found for Loew (1862c), it must date from 31 December 1862. Research conducted in this study found an earlier work (Loew, 1862a: 127) that gives characters to make the genus-group name available there. Coquillett (1910: 536) gave the type species as *Helomyza longiseta* Meigen, 1830, one of two species included in Loew (1862c); however, it was not one of the originally included species in Loew (1862a). As a type species designation is needed from species in that work, I select *Eccoptomera emarginata* Loew, 1862 by **present designation**. Because *Eccoptomera emarginata* Loew, 1862 is currently treated in *Eccoptomera* Loew, 1862 [*teste* Preisler *et al.* (2013: 192)], there is no change to the current generic concept.

Epicausta Loew, 1873: 46.

ORIGINALLY INCLUDED SPECIES: *Senopterina femorata* Macquart, 1844 (as "*Stenopterina femorata*"); *Senopterina immaculata* Macquart, 1844.

TYPE SPECIES: *Senopterina immaculata* Macquart, 1844, by **present designation**.

CURRENT STATUS: Junior synonym of *Elassogaster* Bigot, 1860 [*teste* McAlpine (2001: 152)].

FAMILY: PLATYSTOMATIDAE.

REMARKS: Steyskal (1980: 566) designated *Epicausta nigra* Wulp, 1885 as the type species of *Epicausta*, which was followed by McAlpine (2001: 152), but it was not an originally included species. Although not explaining as such, Steyskal (1980: 566) no doubt thought there were no originally included species in *Epicausta* Loew, 1862 and was designating a nominal species from what he believed were the first two included species (in Wulp, 1885: cxcv): *Epicausta nigra* Wulp, 1885 and *E. metallica* Wulp, 1885. However, Loew (1873: 46) did include two nominal species (*Senopterina femorata* Macquart, 1844 and *Senopterina immaculata* Macquart, 1844) with the statement "His [Macquart's] *Stenopterina femorata* and *immaculata*,

both from Bourbon, seem to belong rather to *Epicausta* than to *Stenopterina*”, which corroborates Loew’s statement at the beginning of the previous paragraph (Loew, 1873: 46) where he stated “The genus *Epicausta*, established by me for two African species ...”. As no valid designation from these two included species has been made prior to this study, I select *Senopterina immaculata* Macquart, 1844 (currently treated in *Elassogaster* [teste Steyskal (1980: 566)]) as the type species by **present designation**, which does not change the current generic concept of *Epicausta* as a junior synonym of *Elassogaster* Bigot, 1860.

Hemilea Loew, 1861: 265 [1863: 10, 32].

ORIGINALLY INCLUDED SPECIES: *Trypeta sinuata* Loew, 1861; *Trypeta dimidiata* Costa, 1844; *Trypeta excellens* Loew, 1861.

TYPE SPECIES: *Trypeta dimidiata* Costa, 1844, by **present designation**.

CURRENT STATUS: Valid genus [teste Agarwal & Sueyoshi (2005: 410)].

FAMILY: TEPHRITIDAE.

REMARKS: Previous workers [e.g., Foote (1984: 92); Norrbom *et al.* (1999: 156); Agarwal & Sueyoshi (2005: 410)] have dated this genus-group name from Loew (1863: 32) and the type species as *Trypeta dimidiata* Costa, 1844 by monotypy. However, by proposing the genus-group name in Loew (1861: 265–266) in association with three available nominal species (*Trypeta sinuata* Loew, 1861, *Trypeta dimidiata* Costa, 1844, and *Trypeta excellens* Loew, 1861), this is enough to make available the name from this earlier publication, which has been overlooked by previous workers. Since there has been no subsequent designation of a type species from among the three nominal species included in Loew (1861) and to keep the same concept of the genus, I here select *Trypeta dimidiata* Costa, 1844, as the type species by **present designation**.

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