

Notes and Descriptions of Australian Helosciomyzidae or Comb-winged flies (Diptera: Schizophora)

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ABSTRACT. Notes on morphology, including costal features and sexual dimorphism, are given. Limited information on habitat and biology is noted. The Helosciomyzidae are compared with other families with which they have been sometimes associated (e.g., the Dryomyzidae, Sciomyzidae, and Huttoninidae). The position of the Neotropical genus *Sciogriphoneura* Malloch in the Helosciomyzidae, not the Dryomyzidae, is confirmed from strong morphological evidence; this leaves no evidence of the Dryomyzidae in the Southern Hemisphere. The nomenclature of the Australian taxa of Helosciomyzidae is revised with reference to type specimens of all previously described species. The new genus *Luta* is described. *Luta luteipennis* is a new combination for *Helosciomyza luteipennis* Steyskal. Keys to the Australian genera, species groups, and species are given. *Helosciomyza ferruginea* Hendel is a new junior synonym of *H. fuscinevris* (Macquart). The following new Australian species are described: *Helosciomyza bickeli*, *H. driesseni*, *H. nevoissi*, *H. obliqua*, *H. steyskali*, *H. subacuta*, *Neosciomyza peckorum*.

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The family Helosciomyzidae, as most recently reviewed and delimited by Barnes (1981), was formerly included in the Sciomyzidae, though Steyskal (1965) had previously recognized the group at subfamily rank. The present study is needed to clarify the application of some older specific names and to name seven new Australian species.

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Institutions housing specimens are abbreviated as follows: AM, Australian Museum, Sydney; ANIC, Australian National Insect Collection, CSIRO, Canberra; MV, Museum Victoria, Melbourne; PM, Muséum national d'Histoire naturelle, Paris; QM, Queensland Museum, Brisbane; SAM, South Australian Museum, Adelaide; SPHTM, School of Public Health and

Tropical Medicine, University of Sydney (collection now divided between AM and ANIC); TDPI, Department of Primary Industries, New Town, Tasmania; UQIC, University of Queensland Insect Collection, Brisbane (collection now held in the QM); USNM, National Museum of Natural History, Washington, D.C.; NMW, Natural History Museum, Vienna.

Habitat and biology

In my experience helosciomyzid flies are generally found in various forest or tall scrub habitats, but some exceptions have been noted. The very widely distributed *Helosciomyza fuscinevris* occurs in the Simpson Desert, Central Australia, as well as in some forest and suburban habitats. Most specimens of *H. driesseni* were collected in button grass moorland in the Tasmanian highlands. *Cobergius vittatus* is apparently restricted to seashore habitats, and some of its morphological features are shared with other shore-inhabiting flies, e.g., the reduced eye area, the predominantly greyish rather than