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Supplementary descriptions of Australian Rhinotorini (Diptera: Heteromyzidae)

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Abstract

Additional material of rhinotorine flies (Diptera: family Heteromyzidae or Heleomyzidae) is studied, much of it collected by the late Donald H. Colless. A distinctive morphological feature of the antenna, present in a majority of genera of the tribe Rhinotorini, is briefly described. Keys are given to the Australasian genera of Rhinotorini and to the species of *Cairnsimyia* Malloch and *Zentula* McAlpine. *Cairnsimyia englishae* n. sp. (New South Wales), *Cairnsimyia collessi* n. sp. (Queensland), and *Zentula tropica* n. sp. (Queensland) are described.

Key words: *Cairnsimyia*, Heleomyzidae, *Zentula*, keys to species

Introduction

Much Australian material of rhinotorine flies has accumulated since the previous review of Australasian species (McAlpine 1968) and two additional genera have been described (McAlpine 1985; Sinclair and McAlpine 1995).

The family here called Heteromyzidae has been diversely treated for many years, sometimes divided up into as many as eight families. Others have used the name Heleomyzidae (or Helomyzidae) to include all or most of these subgroups. McAlpine (1985) classified the Heleomyzidae into 22 tribes, and, later (2007) regrouped the Australasian taxa into seven subfamilies under the corrected family name Heteromyzidae, used also by Ginn (2011). One of these subfamilies was the Sphaerocerinae, previously treated as a family (Sphaeroceridae or Borboridae). Marshall (2012) continued the usage of Heleomyzidae and Sphaeroceridae at separate family status. The fact remains, however, that the family name Heteromyzidae (based on *Heteromyzides* Fallén, 1820) has priority over Heleomyzidae (based on *Helomyzides* Westwood, 1840), and this now applies whether or not the sphaerocerids are included in the same family (discussion in McAlpine 2007). Any departure from the rule of priority should involve an application to the International Commission on Zoological Nomenclature for setting aside the rules in this particular. The problem of family group nomenclature in the heteromyzid–sphaerocerid field has become so complex that I believe the most reasonable course is to follow the simple rules of family group priority. [An application was made to the ICZN, Case 2743, by Woźnica and Zatwarnicki to validate the family name Heleomyzidae].

Type material of the new species is placed in the Australian Museum, Sydney (AM), and the Australian National Insect Collection, CSIRO, Canberra (ANIC). Other material, used for taxonomic comparison, is in the Australian Museum.

Tribe Rhinotorini

The Rhinotorini were keyed among heleomyzid tribes, and classification of the tribe was discussed by McAlpine (1985). Three Australasian genera, *Cairnsimyia* Malloch, *Zentula* McAlpine, and *Zinza* Sinclair & McAlpine, are now recognised (Sinclair and McAlpine 1995). Other taxa have Neotropical distributions, with one species entering the Nearctic Region (main references given by Almeida and Ale-Rocha 2011).

In *Cairnsimyia* and *Zentula* species antennal segment 1 (scape) generally has a shallow dorsal notch in the