

New and Poorly Known Species of Crane Flies (Diptera: Limoniidae) from New South Wales, Australia

ZACARIAH D. BILLINGHAM^{1,2}  AND GUNTHER THEISCHINGER³ 

¹ Water Sciences, Natural Resources and Heritage,
GHD, 180 Lonsdale Street, Melbourne VIC 3000, Australia

² PhD candidate, Department of Ecology, Environment and Evolution,
La Trobe University, Bundoora VIC 3086, Australia

³ Research Associate, Australian Museum Research Institute,
Australian Museum, 6 College Street, Sydney NSW 2010, Australia

Abstract. Six new species of Australian crane fly are described: *Molophilus (Molophilus) avia* sp. nov., *M. (Molophilus) globostylus* sp. nov., *M. (Molophilus) sinuostylus* sp. nov., *M. (Molophilus) chichester* sp. nov., *M. (Molophilus) trispina* sp. nov., and *Dicranomyia (Dicranomyia) globosa* sp. nov. The poorly known species *M. (Molophilus) flavocingulatus* Alexander, 1928, *Teucholabis reginae* Alexander, 1931, *Hexatoma metallica* Schiner, 1868, *Skuseomyia eximia* Alexander, 1924, *Dicranomyia (Dicranomyia) monacha* Alexander, 1953, *Elephantomyia (Elephantomyodes) fumicosta* Alexander, 1922, *Orimarga joana* Alexander, 1926, and *Thrypticomyia aureipennis* Skuse, 1890 are discussed and figured. In addition, the hitherto unknown females of *M. (Molophilus) bawbawiensis* and *M. (Molophilus) opulus* are described and figures of their ovipositors are provided.

Introduction

Australia boasts a considerable diversity of limoniid crane flies, with 934 known species across 49 genera, belonging to the subfamilies Chioneinae, Limnophilinae and Limoniinae (Oosterbroek, 2021). Recent works have added many new species to the Australian fauna (Theischinger *et al.*, 2018a, 2018b, 2020; Billingham & Theischinger, 2018), and the present study adds a further six new species, elevating the total number of Australian Limoniidae to 940 species.

Despite this impressive diversity, many species of Australian limoniid are poorly known beyond the original

descriptions, and often sufficient detail is lacking to confidently distinguish closely related species. The present work seeks to improve this situation by adding descriptive notes for selected species of the poorly known genera *Elephantomyia* Osten Sacken, 1860, *Hexatoma* Latreille, 1809, *Orimarga* Osten Sacken, 1869, *Skuseomyia* Alexander, 1924, *Teucholabis* Osten Sacken, 1860 and *Thrypticomyia* Skuse, 1890. Additionally, in the light of fresh material, descriptive notes are provided for the poorly known male, and two hitherto unknown females, of *Molophilus* Curtis, 1833 species.

Keywords: new species; Diptera; Limoniidae; Chioneinae; Limnophilinae; Limoniinae

ZooBank registration: urn:lsid:zoobank.org:pub:CDE43DB9-2155-4533-845B-47053DA5FE5D

ORCID: ZB, 0000-0002-6163-9073; GT, 0000-0002-5207-2626

Corresponding author: Zacariah D. Billingham zac.billingham@ghd.com

Received: 23 May 2021 **Accepted:** 4 February 2022 **Published:** 9 March 2022 (in print and online simultaneously)

Publisher: The Australian Museum, Sydney, Australia (a statutory authority of, and principally funded by, the NSW State Government)

Citation: Billingham, Zacariah D., and Gunther Theischinger. 2022. New and poorly known species of crane flies (Diptera: Limoniidae) from New South Wales, Australia. *Records of the Australian Museum* 74(1): 19–40. <https://doi.org/10.3853/j.2201-4349.74.2022.1775>

Copyright: © 2022 Billingham, Theischinger. This is an open access article licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original authors and source are credited.

