



A taxonomic study on *Chrysotus* Meigen (Diptera: Dolichopodidae) from southwest China: descriptions of eleven new species belonging to the redefined *C. laesus*-group

LIANMENG WEI^{1,3} & LILI ZHANG²

¹Anshun Center for Disease Prevention and Control, Anshun, Guizhou, 561000, China. E-mail: wlm510520@sina.com

²Institute of Zoology, Chinese Academy of Sciences, Chaoyang, Beijing, 100101, China. E-mail: tolily@126.com

³Corresponding author

Abstract

Eleven new species of *Chrysotus* Meigen are described from southwest China: *C. adunatus* sp. nov., *C. agraulus* sp. nov., *C. anshunus* sp. nov., *C. apicicaudatus* sp. nov., *C. biprojicienus* sp. nov., *C. fanjingshanus* sp. nov., *C. fuscitibialis* sp. nov., *C. laxifacialus* sp. nov., *C. pallidus* sp. nov., *C. trapezinus* sp. nov. and *C. xinanus* sp. nov. which belong to the redefined *Chrysotus laesus* species-group. A key to all species of the *C. laesus* species-group is provided.

Key words: Diptera, Dolichopodidae, *Chrysotus*, new species, *laesus* species group, Guizhou, southwest China

Introduction

Chrysotus Meigen, 1824 is a cosmopolitan genus of the subfamily Diaphorinae. Presently, 285 species are known to occur worldwide (Yang *et al.* 2006; Wang & Yang 2008), of which 64 species are known from the Palaearctic, 40 from the Oriental, 20 from the Australasian, 13 from the Afrotropical, 107 from the Nearctic, and 92 from the Neotropical regions. The Palaearctic species of *Chrysotus* were revised by Negrobov and his co-workers in a series of publications: Negrobov (1980), Negrobov and Maslova (1995) and Negrobov *et al.* (2000, 2003). Wang and Yang (2006, 2008, 2009) and Wei and Yang (2007) recently described 21 and 4 species of *Chrysotus* from Palaearctic and Oriental China, respectively. Major parts of Oriental China are still poorly investigated and many unknown species are expected to be discovered.

In the present paper, eleven new species of *Chrysotus* mainly from Guizhou, and one each from Yunnan, Sichuan and Guangxi provinces are described, all assigned to the herein redefined *C. laesus*-group. A key to all species assigned to this species group is provided.

Material and methods

Specimens examined in this study were obtained from material collected from 2005 to 2010, funded by the Guizhou Provincial Governor Fund of Talented Person for Excellent Science, Technology and Education. Almost all material was collected with yellow pan traps and all of them are deposited in the Insect Collection at the Centre for Disease Prevention and Control of Anshun City, Guizhou (CDPCAG). Morphological terminology mainly follows McAlpine (1981), except for terms for the structures of the male terminalia which follows Sinclair & Cumming (2006) and Capellari & Amorim (2010). Lengths of both body and wing follow Bickel & Sinclair (1997).

The following abbreviations are used: acr —acrostichal, ad —anterodorsal, apgon —arms of postgonite, appgon —anterior process of postgonite, av —anteroventral, cerc —cercus, CuAx ratio —length of m-cu/