Zootaxa 3188: 55–63 (2012)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Medetera (Diptera, Dolichopodidae) of Sri Lanka

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Abstract

The following five species of *Medetera* are described as new from Sri Lanka: *M. peradeniya, M. kandyensis, M. colombensis, M. nuwarensis, M. subgrisescens.* A key is provided to males of the ten known Sri Lankan species of *Medetera*.

Key words: Dolichopodidae, *Medetera*, new species, Sri Lanka

Introduction

Medetera Fischer von Waldheim, 1819 is a cosmopolitan genus in the Medeterinae comprising 369 species (Yang *et al*. 2006). From the Oriental region 48 species are recorded. The genus *Saccopheronta* Becker, 1914 is treated as valid by some authors, but is here regarded a synonym of *Medetera*. The recent comprehensive treatment of the Oriental *Medetera* is the revision by Bickel (1987) including the Oriental and Australasian faunas. Since then new species were described from Vietnam (Negrobov *et al*. 1991) and China (Yang & Yang 1995; Masunaga & Saigusa 1998; Yang & Saigusa 2000, 2001; Zhu *et al*. 2005). Recently, Grichanov (2011) established the genera *Medeterella* and *Demedetera*, primarily from Australasia and the Oriental regions, based on well defined species-groups of *Medetera.* These species have a basic hypopygial structure characteristic of *Medetera* and separate generic status is unwarranted. Hence, we follow here the species-group concept of Bickel (1987). During study of material from Sri Lanka five undescribed species of *Medetera* were found.

Medetera has a diagnostic venation: M distinctly curving towards R_{4+5} beyond dm-cu crossvein and R_{2+3} and M nearly equidistant at level of crossvein dm-cu and at wing apex. Once seen, this venation is readily recognized and allows for immediate generic placement of both sexes. However, this pattern is not rigidly fixed and there is some variation in the configuration of these veins, such as, a) the distal sector of M beyond dm-cu straight or gently curved, b) the distal M and R_{4+5} becoming closely parallel beyond dm-cu, or c) the numerical range of the CuAx ratio, reflecting the relative distance of crossvein dm-cu from the margin. Adding more complexity is the range of hypopygial structure found among species regarded as "*Medetera*". Most Holarctic species have a relatively simple hypopygial structure (as in Fig. 6), comprising an often lobate cercus, elongate and basally fused surstylus, fused epandrial lobes bearing two strong setae and hypandrium arising near the middle of the epandrium). However, a more complex range of male postabdominal structure is found in the fauna of the tropics and southern hemisphere. As well, *Medetera* has a long evolutionary history. The genus is well known from Baltic amber inclusions (late Eocene to early Oligocene) where again it shows variation in both venation and male postabdominal structure (Meunier 1907). Therefore, as currently defined by venation, *Medetera* possibly comprises a "super-genus," and is not necessarily monophyletic. Possibly genera such as *Saccopheronta, Medeterella* and *Demedetera* could be recognized, as suggested by Grichanov (2011). But this would have the effect of leaving *Medetera* as a paraphyletic residue holding species not included in the derived genera. Actually, this is the fate of many large cosmopolitan insect genera that were defined early in taxonomic history. We currently prefer species groups as monophyletic units within a larger concept of *Medetera* as opposed to defining additional genera. Molecular work, such as that of Pollet *et al.* (in press) undoubtedly will help in clarifying taxonomic groupings.

Accepted by B. Sinclair: 9 Dec. 2011; published: 9 Feb. 2012