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 R₄₅ beyond dm-cu crossvein and R₂₃ 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 R₄₅ 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.