



Three new species of the *Harnischia* complex from the Sino-Indian Region, with a review of *Demicryptochironomus* Lenz (Diptera: Chironomidae)

CHUNCAI YAN¹, OLE A. SÆTHER², ZHAOHUI JIN¹ & XINHUA WANG^{3,4}

¹College of Environmental Science and Engineering, Nankai University, Tianjin 300071

²Museum of Zoology, Department of Natural History, Bergen Museum, University of Bergen, N-5007 Bergen, Norway

³College of Life Science, Nankai University, Tianjin 300071. E-mail: xhwang@nankai.edu.cn

⁴Corresponding author

Abstract

Three new species, *Demicryptochironomus (Irmakia) retusus*, *Microchironomus brochus*, and *Parachironomus lobus* are described and figured as males. *Demicryptochironomus (Demicryptochironomus) asamaprimus* Sasa et Hirabayashi, *D. (D.) chuzequartus* Sasa, *D. (D.) ginzancedeus* Sasa et Suzuki, *D. (D.) uresicarinus* Sasa, and *Demicryptochironomus clarilatus* (Guha et Chaudhuri) are re-examined based on type material. *Cryptotendipes inawabeceus* Sasa, Kitami et Suzuki, *C. tamacutus* Sasa and *Parachironomus harunasecundus* Sasa are transferred to *Demicryptochironomus* as new combinations. *Parachironomus inageheus* Sasa, Kitami et Suzuki is placed as a junior synonym of *Demicryptochironomus ginzancedeus* Sasa et Suzuki. The relationships of some genera within the *Harnischia* complex are discussed. A key to the males of *Demicryptochironomus* is presented.

Key words: Chironomidae, *Microchironomus*, *Parachironomus*, *Demicryptochironomus*, *Irmakia*, new species, key, Sino-Indian region

Introduction

The genera of the *Harnischia* complex are not all clearly delimited as imagines. While most species can be assigned to genus, several species apparently are intermediate between different genera. The immatures, however, mostly are distinctly different and can be easily assigned to genera.

Sæther (1977) gave keys to males, pupae and larvae of the *Harnischia* complex. Part of this key, especially for the males, needs reinterpretations and additions. Reiss (1988) split the genus *Demicryptochironomus* into two subgenera, *Demicryptochironomus s. str.* and *Irmakia* Reiss. Zorina (2007) erected the genus *Olecryptotendipes*. In the key by Sæther (1977) it is mentioned for *Demicryptochironomus* that the inferior volsella is absent, but that the superior volsella may be double giving the impression of two pairs of volsella. However, more recently described species show that there really is, although reduced, an inferior volsella in most members of the subgenus *Demicryptochironomus s. str.*, while the subgenus *Irmakia* lacks an inferior volsella. Thus the subgenus *Irmakia* will key to *Demicryptochironomus* in Sæther (1977), while most *Demicryptochironomus s. str.* will key near *Paracladopelma* Harnisch.

Other differences between the two subgenera, among others, consist in the presence of a Y-shaped anal tergite band in *Irmakia*, while *Demicryptochironomus s. str.* is without such a band. A Y-shaped anal tergite band also is present in several other members of the *Harnischia* complex and is a diagnostic character both for *Saetheria* Jackson (Jackson 1978) and *Olecryptotendipes* Zorina (Zorina 2007). According to Zorina the male of *Olecryptotendipes* is very similar to *Cryptotendipes* Lenz. However, we find that the general shape of the