



A review of *Boreoheptagyia* Brundin, 1966 (Chironomidae: Diamesinae) from East Asia and bordering territories, with the description of five new species

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Abstract

Five new species of *Boreoheptagyia* Brundin, *B. alulasetosa* Makarchenko, Wu et Wang, **sp. n.**, *B. ambigua* Makarchenko, Wu et Wang, **sp. n.**, *B. nepalensis* Makarchenko et Endo, **sp. n.**, *B. sasai* Makarchenko et Endo, **sp. n.**, and *B. xinlongiensis* Makarchenko, Wu et Wang, **sp. n.**, from East Asia and bordering territories are described and figured as males. Six additional species are commented on: *B. brevitarsis* (Tokunaga), *B. kurobebrevis* (Sasa et Okazawa), *B. rotunda* Serra-Tosio, *B. similis* (Chaudhuri et Ghosh), *B. tibetica* Makarchenko et Wang, and *B. unica* Makarchenko. A key to the males of *Boreoheptagyia* from East Asia and bordering territories is presented.

Key words: Diptera, Chironomidae, Diamesinae, *Boreoheptagyia*, new species, key, East Asia

Introduction

The genus *Boreoheptagyia* was erected by Brundin (1966) for Holarctic species of the genus *Heptagyia* Philippi and includes at present 16 species, mostly from the Palearctic region (Serra-Tosio 1983, 1989; Sæther *et al.* 2000). Only one species is recorded from the Nearctic region (Oliver *et al.* 1990).

Six species have been reported from East Asia, *B. brevitarsis* (Tokunaga), *B. kurobebrevis* (Sasa et Okazawa), *B. tibetica* Makarchenko et Wang, *B. unica* Makarchenko, *B. rotunda* Serra-Tosio and *B. similis* (Chaudhuri et Ghosh) (Chaudhuri & Ghosh 1981; Serra-Tosio 1983, 1989; Makarchenko 1985, 1994, 1996; Makarchenko *et al.* 1996; Wang 2000; Endo 2002).

Material from the Russian Far East, China, Japan and Nepal have been studied and 11 species of *Boreoheptagyia* were found, five of which are described as a new. For the remaining six species, diagnostic characters and comments are given. A key to the males of the *Boreoheptagyia* species occurring in East Asia and bordering territories is provided.

Material and methods

Adults were collected mainly with sweep nets or in light traps and Malaise traps placed near rivers and streams; a few specimens were taken in emergence traps. The material was preserved in 70% ethanol and mounted on slides in Berlese's fluid, Canada balsam or Euparal. The terminology follows Sæther (1980). The measurements are given as ranges.