A systematic review of the genus Constempellina Kieffer (Diptera: Chironomidae) from the Russian Far East, with description of a new species

OKSANA V. ZORINA
Institute of Biology and Soil Sciences, Russian Academy of Sciences, Far East Branch, 100 let Vladivostoku Avenue 159, Vladivostok 690022, Russia. E-mail: zorina@ibss.dvo.ru

Abstract

A new species of the genus Constempellina Brundin, 1947, C. tokunagai sp. n., from the Russian Far East is described and figured as male, pupa and larva. The male and pupa of C. brevicosta (Edwards 1937) are redescribed and figured. Consequently, the generic diagnosis is emended. Keys to the males, pupae and larvae of Russian Constempellina are also given.

Key words: Chironomidae, Tanytarsini, Constempellina, new species, key, Russian Far East

Introduction

The genus was erected by Brundin in 1947 for Tanytarsus (Phaenopelma) brevicosta Edwards, 1937, and later placed in the subtribe Stempellinina (Shilova 1976; Spies 2005) of the tribe Tanytarsini, subfamily Chironominae (Sæther 1977). Brundin (1948) presented the first thorough morphological analysis of the all life stages and combined the genera Stempellina Thiemann et Bause, 1913 with Constempellina into the Stempellina-group, morphologically different from the Zavrelia-group. Species of the genus Constempellina Brundin, 1947, are small non-biting midges with immature stages living in standing and flowing waters. The larvae construct small transportable cases of sand grain.

The genus Constempellina includes one Holarctic species, C. brevicosta (Edwards, 1937). Up to present time two species, C. brevicosta and C. bita Konstantinov, 1948 (nomina dubia) (Ashe & Cranston 1990) have been recorded from Russia (Pankratova 1983). However, during studies of the chironomid fauna in the Russian Far East, a new species was found, and herein is presented. Additionally, C. brevicosta is redescribed, and the keys to males, pupae and larvae of Russian Constempellina are given.

Material and methods

The material was preserved in 70% ethanol and 4% formalin and slide-mounted in Fora-Berlese solution. Morphological terminology and abbreviations follow Sæther (1980). The measurements are given as ranges. The following additional abbreviations are used: PL-male = associated larva, pupa, and adult male; PL-female = associated larva, pupa, and adult female; P-male = associated pupa and male; P-female = associated pupa and female; L = larva. Larvae are associated with pupae on the larval head capsules skins remaining on the pupae. Pupae are associated with adult males on the prepared from mature pupae genitalia.

The holotype and paratypes of the new species are deposited in the Institute of Biology and Soil Sciences, Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia (IBSS FEBRAS).