



Evaluation of diagnostic characters of the *Tanytarsus chinyensis* group (Diptera: Chironomidae), with description of a new species from Lapland

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Abstract

Tanytarsus salmelai sp. n. collected from the northernmost sites of the Finnish Lapland is described. The new species and two sibling *Tanytarsus*, *T. brundini* Lindeberg, 1963 and *T. curticornis* Kieffer, 1911, are compared, diagnosed and illustrated in detail. Morphological variability and diagnostic characters of the three related species are discussed. An emended diagnosis for adult males of the *Tanytarsus chinyensis* species group and a key to determination of European species of the group are also provided.

Key words: Diptera, Chironomidae, *Tanytarsus*, systematics, new species, Lapland

Introduction

The *Tanytarsus chinyensis* species group, proposed by Reiss & Fittkau (1971), includes currently several species, six of which were recorded in Europe (*Tanytarsus brundini* Lindeberg, 1963, *T. chinyensis* Goetghebuer, 1934, *T. cretensis* Reiss, 1987, *T. curticornis* Kieffer, 1911, *T. heusdensis* Goetghebuer, 1923, *T. palettaris* Verneaux, 1969), three in Afrotropics (*Tanytarsus conigus* Lehmann, 1981, *T. pseudoconigus* Ekrem, 1999, *T. trifidus* Freeman, 1958), and at least three are known from the eastern Palaearctic (*Tanytarsus akantertius* Sasa & Kamimura, 1987, *T. tamadecimus* Sasa, 1980, *T. tusimatneous* Sasa & Suzuki, 1999) (Ekrem 2001, 2002; Giłka, unpubl.). The *chinyensis* group is also represented in the Nearctic region (Oliver et al. 1990), however, the records of *T. brundini* and *T. curticornis* require confirmation (Bilyj, pers. comm.). The Neotropical *riopreto* species group, distinguished by Fittkau & Reiss (1973) and discussed by Sanseverino (2006), appears to be closely related to the *chinyensis* group, nevertheless, phylogenetic relations between the two groups need further studies.

The presence of two setae on the median margin of the hypopygial superior volsella and the single seta on the digitus are adult male characters for the group recently discussed (Ekrem 2001, 2002; Sanseverino 2006). Another diagnostic feature, however, limited to the two European species, is the swollen distal part of the digitus forming a pear-shaped lobe. Based on Kieffer's materials, Edwards (1929) mentioned this character in two forms known under the common name *Tanytarsus curticornis*. Subsequently, Lindeberg (1963) described one of Edwards's varieties as *Tanytarsus brundini*, using a morphometric analysis and a correlation between some hypopygial features and body colouration.

Here we describe another species of the group, which has the pear-shaped digitus. The new species fits concept of the *chinyensis* group well and shows an interesting set of characters which clearly distinguish it from the two congeners. Our study, based on the adults collected in Fennoscandia, resulted in comparative descriptions of the three relatives and their morphological variability. A detailed analysis of male characters of all known species of the *chinyensis* group allow us to emend its diagnosis as well.