



A systematic review of the genus *Parapsectra* Reiss (Diptera: Chironomidae: Tanytarsini) with description of a new species from Poland

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Abstract

Adult males of the genus *Parapsectra* Reiss are diagnosed, illustrated in detail and keyed. *Parapsectra bumasta* sp. n., collected from Pomerania (N Poland) is described and compared with two similar species: *P. chionophila* (Edwards) and *P. nana* (Meigen). Systematic relationships between the species included in *Parapsectra* and close genera are discussed. Data on biology of *Parapsectra* from new European sites are provided.

Key words: Diptera, Chironomidae, *Parapsectra*, taxonomy, new species, biology

Introduction

Parapsectra Reiss, 1969 is a poorly known genus of the chironomid tribe Tanytarsini. It is distributed throughout the Holarctic (Epler 2003, Sæther & Spies 2004, Makarchenko *et al.* 2005), but so far only six species have been described [*P. chionophila* (Edwards), *P. mendli* Reiss, *P. nana* (Meigen), *P. styriaca* (Reiss), *P. uliginosa* Reiss, *P. wagneri* Siebert]. *Parapsectra* was separated based on morphological characters of pupae provided with pairs of oval or transversely elongated fields of short spines (shagreen) on abdominal tergites (Reiss 1969b). However, early developmental stages of most *Parapsectra* species remain unknown. Moreover, it is difficult to find genus-level taxonomic characters of adult *Parapsectra* males, which could unequivocally distinguish the genus from *Micropsectra* Kieffer and *Krenopsectra* Reiss (Cranston *et al.* 1989, Stur & Ekrem 2008). Thus, inclusion of species into the genus *Parapsectra* is possible only based on morphology of both pupae and adult males, or when the characters of adult male are evidently similar to those of the type species. Consequently, our review includes a description of a new species which demonstrates unique features of its hypopygium as well as a set of characters indicating its close relationship with *Parapsectra nana*.

Morphological characteristics, evolutionary trends and phyletic relations between *Parapsectra* and similar genera, which are proposed to be collectively termed ‘the *Micropsectra* series’, were discussed by Säwedal (1982). The hypotheses pointed out by him are, partly, in agreement with our data and indicate particularly close relationships between *Parapsectra* and the species currently included into the *Micropsectra attenuata* group but also to the genus *Paratanytarsus* Thienemann *et* Bause.

Materials and methods

Specimens, collected with a sweep net and the Malaise trap, were dissected and slide-mounted in a mixture of phenol and Canada balsam using the method of Wirth & Marston (1968). To preserve the natural shape and configuration and to prevent flattening of the structures studied, all parts of the specimen were placed under 3 x 3 mm, or smaller cover slips. Illustrations, descriptions and measurements are based on slide-mounted individuals (except for the body colouration, taken from specimens preserved in alcohol). The wing was