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The Tanytarsini (Diptera: Chironomidae) in the collection of the Museum of Amber Inclusions, University of Gdańsk

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Abstract

Non-biting midges of the tribe Tanytarsini collected in the Museum of Amber Inclusions, University of Gdańsk, Poland, are reviewed. Among over 1500 chironomid specimens examined (inclusions in Baltic amber), 44 Tanytarsini individuals were found, of which 27 well preserved specimens were determined to 7 species, including 3 species described as new. *Stempellinella electra* **sp. nov.** (male) displays morphological hypopygial characters unique for the genus, and the antenna composed of 13 flagellomeres. A new checklist of fossil and extant species of this genus is also given, including *Stempellinella sofiae* (Fusari *et* Lamas, 2014) **comb. nov.** *Tanytarsus glaesarius* **sp. nov.** (male) is the only Eocene species of the genus with a reduced number of antennal flagellomeres. *Tanytarsus protogregarius* **sp. nov.** (male) is the oldest known representative of the *gregarius* species group. Notes on phylogenetic relations of the new species with their extant congeners are also provided.

Key words: Diptera, Chironomidae, Tanytarsini, taxonomy, new species, Eocene, amber

Introduction

The Museum of Amber Inclusions (MAI) was established in 1998 as one of laboratories of the Department of Invertebrate Zoology and Parasitology at University of Gdańsk (UG), Poland, and is focused on animal inclusions in Baltic amber. During the 17-year activity, the Museum became the holder of one of the largest collections of animal inclusions in Poland and Europe—nearly 15000 specimens, catalogued and available to research (Szadziewski, pers. comm.). Recently, after relocation to a new building in Gdańsk-Oliwa, the classic exposition of the Museum was transformed into an interactive form, named "Life in the amber forest", adorned with selected animal, plant and inorganic inclusions in Baltic amber, as well as other resins of diverse age and origin (Fig. 1).

In the collection we found a number of chironomid specimens, including the Tanytarsini. Among them, individuals of three unknown species were studied in detail, and herein they are presented. Thereby the number of all known Eocene Tanytarsini increases to 15 in 7 genera (*cf.* Zakrzewska & Giłka 2014).

Material and methods

In this study 1522 chironomid individuals were examined, all as inclusions in Baltic amber (sorted materials, in part). The amber was cut into small pieces, ground and polished manually. The Museum register numbers were marked with letters assigned to smaller cut-off amber pieces. Measurements of specimens are in μm , except for the total length (in mm, rounded off to the first decimal place). The body was measured from the antennal pedicel to the end of the gonostylus, and the wing from the arculus to the tip. Lengths of leg segments and palpomeres were rounded off to the nearest 5 and 1 μm , respectively. The antennal, leg and venarum ratios (AR, LR, VR) were calculated to the second decimal place. Wherever possible, the morphological terminology and abbreviations follow Sæther (1980). The photographs were taken using the classic microscope PZO Biolar SK14 and the Helicon Focus 6 image stacking software. All the materials studied are deposited in the collection of the MAI, UG, Poland.

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