



A new fossil *Tanytarsus* from Eocene Baltic amber, with notes on systematics of the genus (Diptera: Chironomidae)

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Abstract

Tanytarsus fereci sp. nov. is described from a specimen found in Eocene Baltic amber. The new species is compared with the fossil *Tanytarsus serafini* Giłka and with the extant *T. aculeatus* Brundin. Following the analysis of morphological diagnostic characters, *T. fereci* is placed in the *mendax* species group.

Key words: Diptera, Chironomidae, *Tanytarsus*, systematics, new species, Baltic amber, Eocene

Introduction

The oldest known Eocene chironomids of the tribe Tanytarsini are three well defined species of the genera *Stempelina* Thienemann *et* Bause, *Stempelinella* Brundin and *Tanytarsus* van der Wulp (Seredszus & Wichard 2007, Giłka 2010). The recently described *Tanytarsus serafini* Giłka (2010) and *T. fereci*, described in this work, provide unique data on genealogical relationships within the genus. A detailed analysis of morphological structures showed the two species to belong to different systematic groups; on the other hand, *T. fereci* and the extant *T. aculeatus* Brundin share a number of unique characters. Some of these features were used in the group diagnosis of the monotypic *aculeatus* group (Reiss & Fittkau 1971). Following the recently published phylogenetic analyses, the *aculeatus* group was included into the *mendax* species group (Ekrem 2003). Consequently, *T. fereci* becomes the oldest member of the latter.

The morphological terminology and methods used in this work follow Giłka (2010). The holotype of *Tanytarsus fereci* is deposited in the Museum of Amber Inclusions (MAI) at the Department of Invertebrate Zoology, University of Gdańsk, Poland. The specimens of *Tanytarsus aculeatus* used in the analysis were collected from several sites in Finland by author.

Systematics

Tanytarsus fereci sp. nov.

Type material. Holotype, No. MAI 4356, adult male, completely preserved inclusion in a light-yellow, manually ground and polished cubicoid piece (6 x 5 x 2 mm) of Baltic amber collected on the coast of the Gulf of Gdańsk.

Derivation of the name. The species name is a tribute to Mr Janusz Feręc (Elbląg, Poland) who has kindly donated the inclusion.

Diagnosis. AR 0.82. Palpus long, palp length / head length ratio c. 1.6; ultimate palpomere with strong stiff apical seta. Sc long, ending slightly distally of Cu₁. VR_{Cu} 1.26. LR₁ 2.44. Anal tergite with longitudinal crest-like hump bearing short median setae. Anal point slender, becoming pointed distally, bearing spinulae between long crests. Median volsella extending to more than half-length of inferior volsella.