Abstract

A new species, *Nannotanyderus ansorgei*, belonging to Tanyderidae (Diptera, Nematocera), is described and figured from the Lower Cretaceous amber of Lebanon. This is a tiny species, with very particular male genitalia and with wing venation similar to genus *Nannotanyderus krzeminskii* Ansorge, 1994 from Lower Jurassic (Toarcian) of Germany. For the first time a male specimen of the species *Dacochile microsoma* Poinar & Brown, 2004 is illustrated and its genitalia described.

Keywords
Diptera; Tanyderidae; fossil; Lower Cretaceous; Lebanese amber; new taxa; *Nannotanyderus ansorgei*; *Dacochile microsoma*

Introduction

Tanyderidae, or primitive crane flies, is a small, cosmopolitan family of mostly aquatic flies, with about 36 known living species world-wide. The immature stages of the extant species are aquatic to semiaquatic including association with wet sandy soil and the outer layers of submerged rotting logs in streams. Adult males sometimes congregate in large swarms in evenings; spending the daylight hours among the riparian vegetation near the borders of streams. Little is known about the biology of these unusual flies.

Tanyderidae are rather rarely found as fossils. Up till now, representative of six genera have been described, i.e., *Macrochile* Loew, 1850 (two species from Baltic amber (Loew 1850; Alexander 1931; Podenas 1997));

We describe herein a new species that we assign to Nannotanyderus (on the basis of wing shape and venation) from the Lower Cretaceous amber of Lebanon. A discovery of a male specimen of Dacochile microsoma Poinar et Brown, 2004 from Burmese amber definitively prove the belonging of this species to the Tanyderidae and not to Psychodidae Bruchomyiinae as claimed Woodley (2005).

Material and Methods

The Lebanese amber material described herein is originated from the locality of Jouar Ess-Souss, Bkassine, Caza Jezzine (Jezzine district), Southern Lebanon, Acra Collection. The amber piece containing the inclusion was cut, shaped, and polished, before inclusion between two cover slips in Canada balsam medium as described by Azar et al. (2003). The Burmese amber specimen was generously loaned by Prof. David Grimaldi from the American Museum of Natural History, New York. The specimens were examined with a Nikon SZ10 stereomicroscope, an Olypmus SZX9 steriomicroscope, and a Leitz Laborlux-12 compound microscope, all equipped with digital camera and camera lucida for line drawings.

Systematic Palaeontology

Family Tanyderidae Osten Sacken, 1879
Genus Nannotanyderus Ansorge, 1994

Type species

Nannotanyderus krzemińskii Ansorge, 1994, Lower Jurassic (Toarcian).