



<http://dx.doi.org/10.11646/zootaxa.3794.4.9>

<http://zoobank.org/urn:lsid:zoobank.org:pub:C735111F-81E5-4260-8FBE-777F1E53326F>

## A new genus of Podonominae (Diptera: Chironomidae) in Late Eocene Rovno amber from Ukraine

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### Abstract

The genus *Palaeoboreochlus* Baranov *et* Andersen, **n. gen.** is erected based on *P. inornatus* Baranov *et* Andersen, n. sp. described from a male found in Late Eocene Rovno amber. The new genus groups with *Boreochlus* Edwards in the tribe "Boreochlini".

**Key words:** Diptera, Chironomidae, Podonominae, *Palaeoboreochlus*, new genus, new species, Eocene, Rovno amber, Ukraine

### Introduction

The subfamily Podonominae Thienemann *et* Edwards was originally proposed based on several genera from the Northern Hemisphere. The subfamily is currently represented by 14 extant genera with altogether 161 species (Ashe & O'Connor 2009, 2012; Ashe, pers. comm.). Of these, nine genera and 131 species are known from the Southern Hemisphere, while 6 genera and 30 species are known from the Northern Hemisphere with only one genus, *Parochlus* Enderlein, common to both hemispheres (though the Northern Hemisphere is represented by only a single Holarctic species, *Parochlus kiefferi* (Garrett, 1925). Two tribes, Boreochlini and Podonomini, are traditionally recognized. However, recent molecular studies (Cranston *et al.* 2010, 2012) show that while the tribe Podonomini is monophyletic the tribe "Boreochlini" is a non-monophyletic aggregate. Podonominae is a basal subfamily of Chironomidae and is playing an important role in the understanding of the evolution of the family (Cranston *et al.* 2010). Moreover, after Brundin (1966) published his monograph on transantarctic relationships of austral genera, Podonominae also play an important role in biogeographical studies (Cranston *et al.* 2012).

For a long time *Parochlus kiefferi* was considered to be the only representative of the Podonomini in the Northern Hemisphere, until Cranston & Edward (1998) re-evaluated the placement of *Trichotanypus* Kieffer within the Boreochlini. *Trichotanypus* includes 10 boreal species, three of them Nearctic, five Palaearctic and two Holarctic. The genus *Boreochlus* Edwards includes seven species: three Nearctic, two Palaearctic and two Oriental. *Lasiodiamesa* Kieffer comprises one Holarctic, four Nearctic and three Palaearctic species, and the small genus *Paraboreochlus* is represented by two Palaearctic and one Oriental species (Ashe & O'Connor 2009). A majority of the non-austral Podonominae are inhabitants of the arctic and boreal regions, or occur in cold stenothermic biotopes (e.g. streams, springs) in temperate regions (Brundin 1966). Two of the three Oriental species, *Boreochlus burmanicus* Brundin, 1966 and *B. malasei* Brundin, 1966 (Brundin 1966), live high in the mountains (2000 m a.s.l.), but the third, *Paraboreochlus okinawus* Kobayshi *et* Kuranishi, 1999, occurs on the subtropical Okinawa Island and in the Russian Far East (Ashe & O'Connor 2009).

It is well established that the Podonominae in the Mesozoic and Early Cenozoic were much more widespread in the Northern Hemisphere. Podonominae have been recorded from Jurassic deposits in both Siberia and Germany

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