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A second Eocene species of death-watch beetle belonging to the genus *Microbregma* Seidlitz (Coleoptera: Bostrichoidea) with a checklist of fossil Ptinidae

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Abstract

Based on a well-preserved specimen from Upper Eocene Baltic amber (Kaliningrad region, Russia), *Microbregma waldwico* sp. nov., the second fossil species of this genus, is described. The new species is similar to the extant Holarctic *M. emarginatum* (Duftschmid), 1825, and fossil *M. sucinoemarginatum* (Kuška), 1992, but differs in its shorter abdominal ventrite 1 (about 0.43 length of ventrite 2) and larger body (5.1 mm). A key to species of the genus *Microbregma* is given, and a check-list of described fossil Ptinidae is provided. The fossil record of Ptinidae now includes 48 species in 27 genera and 8 subfamilies.

Key words: Anobiinae, *Microbregma waldwico*, new species, Tertiary, Baltic amber, key, fossil

Introduction

Ptinidae Latreille, 1802 is a medium-sized beetle family with 259 genera and more than 2900 species known worldwide (Zahradník & Háva 2014a). Representatives of this family are common in Baltic amber and well represented in museum collections (Aleksiev 2014). Ptinidae is among the four most common beetle families found in Baltic amber (along with Scirtidae, Staphylinidae and Elateridae), yet most species and taxa of higher rank found in this amber remain undescribed. To date, only two species of the subfamily Anobiinae have been described from Baltic amber: *Microbregma sucinoemarginatum* (Kuška), 1992, and *Anobium jacquelinae* Hawkeswood, Makhan & Turner, 2009. Undoubtedly, this family of beetles played an important role in the extinct ecosystem of Eocene “amber forests”. Nonetheless, it is poorly understood and much remains to be learned about its amber representatives.

The Recent fauna of the genus *Microbregma* Seidlitz, 1889, comprises a single holarctic species, *M. emarginatum* (Duftschmid, 1825) distributed across Europe, eastern Siberia, the Russian Far East, the north-eastern provinces of China, Japan, and North America (Logvinovskij 1985, 1992; White 1982; Zahradník 2007). Adults are associated with conifer trees (*Picea*, *Pinus*, *Tsuga*), as well as hickory (*Carya*), while larvae develop inside and under bark of old trees (Logvinovskij 1985; White 1982).

In the current paper, a second extinct species of the genus *Microbregma* is described from Baltic amber of the Kaliningrad Region (Russia), generally attributed to the Upper Eocene.

Materials and methods

The type material is currently housed in the private collection of Andris Bukejs (Daugavpils, Latvia), but will be deposited in the Institute of Systematic Biology, Daugavpils University (Daugavpils, Latvia) for permanent preservation. The amber piece with the beetle inclusion was obtained from a commercial source.

tropic, subtropic, nemoral and boreal species, as well as the presence of both archaic and modern groups of insects. The recent European Coleoptera fauna is heterogeneous too. But the relative proportions of the above-mentioned groups and the representative species are more important for observing the complete pattern and forming general conclusions regarding the palaeoecology of the Eocene amber forests. These sorts of inferences will be possible with confidence only after descriptions of the majority of Baltic amber species are made. New taxonomic records, such as *Microbregma waldwico*, may represent common taxa that are perhaps not very important for solving modern systematic and phylogenetic problems, but understanding these groups is the key to understanding the palaeoecology of the entire deposit.

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