



***Promanodes alleni* sp. nov., the second species of the Tertiary genus *Promanodes* Kolibáč, Schmied, Wappler et Kubisz, 2010, with improved diagnosis of the genus and remarks on its phylogeny (Coleoptera: Trogossitidae)**

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Abstract

A new species of the genus *Promanodes* Kolibáč, Schmied, Wappler et Kubisz, 2010 (Trogossitidae: Lophocaterinae: Lophocaterini), *P. alleni* sp. nov., is described from Baltic amber. Perfectly visible antennae and tarsi of the fossil extend morphological information about the genus and new character states, some of them unique among Peltinae and Lophocaterinae, confirm its independent status. A differential diagnosis of *Promanodes* is improved. A character analysis confirms a relation of *Promanodes* and the extant genus *Promanus* Sharp, 1877.

Key words: Coleoptera, Trogossitidae, Lophocaterinae, new species, *Promanodes alleni*, Baltic amber, Tertiary

Introduction

Trogossitidae is one of the lesser families of Cleroidea. Its morphology, biology, phylogeny, and classification were reviewed by Kolibáč & Leschen (2010). A list of fossil members of the family includes about 25 species from Tertiary and Mesozoic. They are cited by Schmied *et al.* (2009) in detail. Two more Eocene species have been described recently: *Ancyrona eocenica* Schmied, Wappler et Kolibáč, 2009 from Eckfeld Maar, Germany, and *Promanodes serafini* Kolibáč, Schmied, Wappler et Kubisz, 2010 from Polish Baltic amber. Excluding aforementioned species and easily recognizable members of *Tenebroides* Piller et Mitterpacher of the subfamily Trogossitinae, none fossil trogossitid species older than the late Oligocene was described from Palaearctic region. All other fossils recorded were classified within genera only, namely *Lophocateres* Olliff, *Grynocharis* Thomson and *Peltis* O.F. Müller spp. (Klebs 1910, Larsson 1978, Spahr 1981ab, Schmied *et al.* 2009).

The genus *Promanodes* Kolibáč, Schmied, Wappler et Kubisz was established by Kolibáč *et al.* (2010) for the single Baltic amber species *P. serafini*. The genus resembles the extant genus *Promanus* Sharp from New Zealand in its body shape, and some other morphological characters. However, for example, the antennae were broken and tarsi indistinctly visible in *P. serafini*. Therefore, the second Baltic amber species of *Promanodes* described here significantly extends knowledge of morphology of the genus.

Material and methods

The amber specimen was prepared for examination following protocols outlined in Nascimbene & Silverstein (2001). A polished slab of amber measuring 44×9×4 mm contained the beetle specimen, which (in dorsal view) was oriented at approximately 10° angle to the cut surface. Body length was measured along the midline from the anterior margin of the frons to elytral apex, and width measured across the broadest part of the elytra. The specimen was examined using a Novex stereomicroscope. Photographs were produced with a Leica Z16Apo, certain images were stacked using Helicon Focus 4.21 or LAS 3.6 programs.

NONA (Goloboff 1999), in conjunction with WinClada (Nixon 1999–2002), was used for character analysis and construction of cladograms. A heuristic analysis (maximum trees ('hold') = 1000, number of replications