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A New Species of the Genus *Smicrips* Le Conte (Coleoptera: Smicripidae) from Baltic Amber

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Abstract—*Smicrips gorskii* sp. nov. from the Upper Eocene Baltic amber, distinguished from all congeners by the dark color and very long antennomere 2 is described.

Keywords: Cucujoidea, Smicripidae, new species, Eocene, Baltic amber

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INTRODUCTION

The tribe Smicripini was established in the family Nitidulidae Latreille, 1802 (Horn, 1879); later, this group was long assigned to Nitidulidae, Monotomidae Laporte, 1840 or Rhizophagidae Redtenbacher, 1845. Böving and Craighead (1931) concluded based on the larval structure that this group is distinctly isolated from all mentioned families. Recent smicripids include one genus, *Smicrips* Le Conte, and six species occurring in the southern United States, Central America, and Antilles. Bionomy of Smicripidae is poorly understood; adults and larvae occur in decaying flowers, leaf litter, and under bark. To date, only one fossil member of this family, *Smicrips europeus* from the Oise amber of the lowermost Eocene (about 53 Ma) (Kirejtshuk and Nel, 2008), has been described. In this study, the second fossil species of Smicripidae is described from the Upper Eocene Baltic amber.

MATERIAL AND METHODS

The holotype is currently housed in the private collection of Andrzej Górski (Bielsko-Biała, Poland: AG BB) and will subsequently be deposited in the Museum of Natural History, Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Kraków, Poland. The specimen was examined using a Nikon SMZ 745T stereomicroscope. The photographs were taken using a Nikon SMZ 745T stereomicroscope with a Nikon DS-Fi1 digital camera. Baltic amber comes mostly from localities along the southern coast of the Baltic Sea and is usually dated Upper Eocene (Priabonian, about 38 Ma), although there are other estimates of its age, based largely on K-Ar dating (Lutetian, 48.6–40.4 Ma: Ritzkowski, 1997) and palynological biostratigraphy (Priabonian, 37.2–33.9 Ma: Aleksandrova and Zaporozhets, 2008), etc.

SYSTEMATIC PALAEONTOLOGY

Family Smicripidae Horn, 1879

Genus *Smicrips* Le Conte, 1878

***Smicrips gorskii* Bukejs et Kirejtshuk, sp. nov.**

E t y m o l o g y. In honor of Andrzej Górski (Bielsko-Biała, Poland).

H o l o t y p e. AG BB, no. 4932; probably female, complete specimen with partly exposed hind wings embedded in a small, subsquare amber piece (about 6 mm long and 5 mm wide), with some layers and gas bubbles, making it difficult to observe the outlines of sclerites, particularly in the anterior part of the specimen. No other syninclusions are present in the amber piece under study. Baltic Sea coast, Gdańsk, Poland; Baltic amber, Upper Eocene, Prussian Formation.

D e s c r i p t i o n (Fig. 1). The body is elongate, flattened somewhat dorsally and ventrally, unicolorous dark brown. The pronotum, elytra, uncovered abdominal tergites, and ventrites are covered with pale, short, recumbent hairs; the head and metaventrite have shorter, finer, and less conspicuous hairs; the prosternum lacks pubescence.

The head is prognathous, subtriangular, slightly transverse, together with the eyes nearly as wide as the pronotum; the anterior part of frons at the level of the anterior eye edge is rather sharply lowered with subrectilinear to slightly emarginate basal outline; with

Fig. 1. *Smicrips gorskii* sp. nov., holotype AG BB, no. 4932, body, Baltic amber, Upper Eocene: (a) dorsal, (b) lateral, and (c) ventral views. Body length, 1.85 mm.

fine and sparse punctures, distinctly smaller than one eye facet; the distance between these punctures is markedly greater than one puncture diameter; the microsculpture is especially strong and dense in the anterior half. The eyes are moderately small, convex, with medium-sized facets. The labrum has a straight anterior margin. The mandibles are broad. The temples are short, about 0.6 times as long as the transverse eye diameter. The antennae are 11-segmented, with a 3-segmented loose club that makes up about 0.3 of the total antennal length. The scape is subcylindrical, about 0.3 times as long as and distinctly narrower than the antennal club. The pedicel is the longest antennomere; it is subcylindrical, about three times as long as wide and much narrower than and about 1.3 times as long as the scape. Antennomeres 3–5 are subconical, nearly as long as wide, distinctly narrower and shorter than the pedicel; antennomeres 6–8 subconical to suboval, antennomere 8 is about 1.1 times as wide as long; antennomeres 9 and 10 are transverse; antennomere 10 is about 1.2 times as wide as long and 1.6 times as wide as antennomere 8; antennomere 11 is suboval with a pointed apex, distinctly longer than antennomere 10.

The pronotum is transverse, about 1.3 times as wide as long, widest in the anterior third; the anterior margin is almost straight; the posterior margin is slightly convex; and the lateral margins are subrectilinear to broadly rounded; the posterior margin has a narrow border; the posterior and anterior angles are rounded; the disk is subflattened; the sides are rather sloping. The pronotal punctation is fine and sparse (similar to that on the head); the interspaces between punctures have microsculpture. The prosternum is weakly convex, without distinct punctures and microsculpture; the process is moderatelly wide, subparall-sided. The metaventrite is shining and lacking distinct punctures. The metepisterna are about 5.5 times as long as wide.

The scutellum is moderately large, transverse, subtriangular with a widely rounded apex, covered with punctures similar to those on the elytra. The elytra are truncate at apices, leaving exposed two last abdominal segments; their outer apical angles have a distnct top and are subparalle-sided, about 1.4 times as long as wide combined, subflattened at disk and steeply slop-

ing at sides; the lateral edges of the anterior part of their sides are rather arcuate (in lateral view as in Fig. 1b), with fine and sparse punctures and microsculpture, but less distinct than those on the pronotum. The pygidium is slightly convex, with a longitudinal oval impression on disk, with punctures somewhat denser (than those on pronotum) and microsculpture. The abdomen has dense and fine punctures; ventrite 1 is about as long as ventrites 2 and 3 combined; ventrite 5 is widely rounded at the apex, as long as ventrites 1–4 combined.

The legs are moderately long and narrow; the trochanters are elongate. The femora are spindle-shaped, slightly widened in the middle. The tibiae are flattened, slightly curved, with oblique apices. The tarsi are moderately short, about 0.7 times as long as the tibiae; the metatarsi are markedly longer than pro- or mesotarsi; the ultimate tarsomere is distinctly longer than the previous tarsomeres combined.

Measurements, mm. Body length, 1.85; maximum width, 0.5; height 0.4.

Diagnosis. The new species differs from all congeners in its dark coloration and very long antennomere 2, and particularly from fossil *Smicrips europeus* in the somewhat narrower and very flattened head with subrectilinear (not concave) basal outline of the anterior part of frons, and sharply truncate elytra with distinct tops of apical outer angles and lateral edges of anterior part of their sides more arcuate (in lateral view as in Fig. 1b).

Remarks. The specimen examined has mandibles that show no traces of sexual dimorphism, widely rounded apices of the pygidium and hypopygidium (i.e., without secondary sexual characters). Thus, this is female rather than male.

Material. Holotype.

DISCUSSION

The finding of a new species of *Smicrips* demonstrates that, at least in the Late Paleogene, this group was apparently much more widespread than in the Recent and that the current range of the family seems to be relict.

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