

Description of a second species of the narrow-waisted bark beetles (Coleoptera: Tenebrionoidea: Salpingidae) from Baltic amber (Tertiary, Eocene)

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The second representative of the family Salpingidae Leach, 1815 and first extinct species of rostrate narrow-waisted bark beetles is described from Baltic amber. *Salpingus henricusmontemini* sp.nov. differs from other representatives of the genus by the length of rostrum, by the shape of pronotum, by the structure of antennae and punctuation of body surface.

Key words: Coleoptera, Salpingidae, *Salpingus henricusmontemini*, new species, Baltic amber, Tertiary, Eocene.

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INTRODUCTION

The family narrow-waisted bark beetles (Salpingidae Leach, 1815) includes about 300 extant species from 45 genera (Slipinski, Leschen, Lawrence, 2011). The family is poorly known taxonomically. Two extant genera belonging to Salpinginae were reported from Baltic amber: *Salpingus* Illiger, 1802 and *Lissodema* Curtis, 1833 (Klebs, 1910). One extinct monotypical genus is described from Baltic amber (Alekseev, 2013) and one from lowermost Eocene French amber (Kirejtshuk et Nel, 2009). In the present paper, a new species of Salpingidae, from Eocene Baltic amber, assigned to the recent genus *Salpingus* Illiger, 1801, is described and illustrated.

MATERIALS AND METHODS

The amber piece with the beetle inclusion was obtained from a commercial source in Kaliningrad and registered in the collection of Christel and Hans Werner Hoffeins in May 2013. Photos were taken with a Zeiss AxioCamICc 3 digital camera mounted on a Zeiss Stemi 2000-stereomicroscope.

SYSTEMATIC PART

Family Salpingidae Leach, 1815
Subfamily Salpinginae Leach, 1815
Genus *Salpingus* Illiger, 1801
***Salpingus henricusmontemini* sp.nov.**
(Figs. 1-4)

Material examined: holotype Nr. 25-3 [CCHH], sex unknown. The beetle inclusion is slightly damaged: the small apical area of the head is blackened, because of thermal processing of the amber piece in an autoclave. The surface of left elytra is not well enough visible. Segments 6-11 of the right antenna are lost. The beetle inclusion is preserved in a polished piece of transparent amber with a yellowish shade. The amber piece is embedded in polyester resin (measurements of the piece are 11.5 x 7.0 x 5.0 mm). In the studied piece syninclusions are absent, but the initial amber nugget has included two female specimens of Diptera (Dolichopodidae and Chironomidae). The examined specimen is currently housed in the private collection of Christel and Hans Werner Hoffeins (Hamburg, Germany). The type will be deposited at the Senckenberg Deutsches Entomologisches Institut in Müncheberg, Germany (SDEI) as part of the institute's amber collection for permanent preservation.

Type strata. Baltic Amber. Eocene.

Type locality: Baltic Sea coast, Yantarny settlement [formerly Palmnicken], the Kaliningrad region, Russia.

Diagnosis. The new species may be referred to the *Salpingus* Ill. due to a combination of morphological characters, such as: well-developed (longer than wide) rostrum, which is not bordered laterally between eyes and antennal insertions; pronotum narrowed to base with basal impressions and without lateral denticulation; antennae with loose club; elytra punctate-striate, shining and naked. *Salpingus henricusmontemini* sp.nov. is easily distinguishable from the other extinct amber species (*Eopeplus stetzenkoi* Kirejtshuk et Nel, 2009 and *Protolissodema ulrikae* Alekseev, 2013) by the presence of a rostrum. The new species is similar to recent *S. ruficollis* (Linnaeus, 1761) and *S. caucasicus* Reitter, 1905 in the presence of pronotal impressions and by the form and comparatively fine punctuation of the elytra, to *S. planirostris* (Fabricius, 1787) by the short rostrum and basal

impressions on elytra. *S. henricusmontemini* sp.nov. can be reliably differentiated from the other species of the genus *Salpingus* based on the following combination of characters: five-segmented antennal club, deep and oval basal foveae of pronotum, short rostrum, confused punctuation on elytra and dark monotonous color of body, rostrum and appendages.

Description.

Body length: ca. 3.7 mm (from apex of rostrum to apex of elytra); body length/maximum body width 2.5. Middle-sized, elongated, flattened, equipped with a short rostrum (Figs. 1-2), unicolorous: dorsal surface, underside, head, head appendages and legs dark brown.

Head prognathous, finely and sparse punctured (distance between punctures wider than diameter of puncture), weakly flattened dorsoventrally, without constricted neck, subparallel-sided posterior to eyes, developed into a rostrum anteriorly. Rostrum 1.6 times as long as wide between eyes. The head with eyes as broad as long including rostrum, slightly narrower than pronotum. The temples 1/3 of eye length, the distance between eye and antennal insertion equal to one eye length. Eyes slightly protuberant, without bristles, finely faceted, oval. Maxillary palps with elongate (about 3 time longer than wide) and spindle-shaped last palpomere (Fig.4). Antenna 11-segmented (Fig.2), reaching humeri, with short and dense hairs on antennomeres. Antennal club loose, 5-segmented: antennomeres 7-10 dilated, obconical; antennomere 11 ovate. The basal antennomeres (1-6) thin, oblong, subequal in size.

Pronotum irregularly and comparatively dense punctured, obviously narrowed to base, elongate (proportion "pronotal length/maximum pronotal width" approximately 1.2). The punctuation of pronotum medially fine and sparse (like punctuation on the forehead), coarse and deeper at margins (the distance between punctures less than diameter of each puncture). Side margin of pronotum bordered anteriorly, laterally in first third and also finely bordered posteriorly. The basal impressions of pronotum in form of two



Figure 1. *Salpingus henricusmontemini* sp.nov. Habitus: dorso-lateral view, left side.



Figure 2. *Salpingus henricusmontemini* sp.nov. Habitus: dorso-lateral view, right side.



Figure 3. *Salpingus henricusmontemini* sp.nov. Habitus: ventro-lateral view.

distinct, deep, rounded and closed slightly transverse foveae. Scutellum rounded, almost triangular. Base of prothorax narrower than the combined elytral bases. Prosternum and mesosternum irregularly punctured like pronotum.

Elytra (Fig.2) shining, elongate, covering abdomen; maximum width of elytra (1/2 of its length) – 1.5 mm; length of elytra – 2.3 mm. The proportion

elytral length/maximum width across the elytra – 1.5; the proportion elytral length/pronotal length – 3.0. Elytra with well-developed humeri, distinctly wider than pronotum, with confused rows of regular punctures (reaching from base to apex), in basal third punctuation is more confused. Scutellar striole present. The interspaces are approximately 2-3 of each puncture diameter, the interstices are approximately 3-4 of the puncture diameter. The punctures are round, deep, 2-3 times larger than eye facet diameter. Basal transverse impression on elytra present in basal third, shallow, but well visible. Epipleuron present, widest at base, reaching the second ventrite.

Metathoracic wings fully developed.

Legs (Fig.3) with tarsal formula 5-5-4. Tarsi and tibiae slender, visibly pubescent. Claws well-developed, long (approximately 1/3 of the ultimate tarsomere length), simple. All tarsomeres not bilobed. Last metatarsomere equal in length to first metatarsomere and approximately as long as 2 and 3 metatarsomeres combined. Tibiae subequal in length, non-widened distally. Femora comparatively wide, rounded. Pro- and mesocoxae cylindrical, rounded, metacoxae transverse. The procoxal separation is not visible, meso- and metacoxae distinctly separated.

Abdomen with five ventrites. The first ventrite 1.3 times longer than each of the subequal in



Figure 4. *Salpingus henricusmontemini* sp.nov. Habitus: frontal view

length 2-4 ventrites; the last ventrite is the shortest. All ventrites distinctly punctured. Ventrites 2-4 with isolated long erect hairs in median part. Last ventrite and last visible tergite with narrow combs of hairs along distal margins.

Derivatio nominis. The epithet of this new species is devoted to Henricus Montemin (Prussian: Erkus Mants, Herkus Monte; Lithuanian: Herkus Mantas; German: Heinrich Monte), who was the most famous leader of the Great Prussian Uprising (1260-1274) against the Teutonic order.

DISCUSSION

The genus *Salpingus* Ill. includes more as 50 species distributed worldwide, except in the tropics. The recent representatives of the genus live under bark, in periderma and in the rotten wood of deciduous trees. Larvae are mycetophagous and are associated with ascomycetes. In all likelihood, the fossil *Salpingus henricusmontemini* sp.nov. was related to such a kind of food and inhabited the broad-leaved trees of the Eocene "amber forest". The current distribution of the *Salpingus* suggests that *S. henricusmontemini* sp.nov was a temperate or even cold element of the Eocene Baltic fauna.

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