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A description of *Quasianisoxya curonensis* gen. et sp. nov. (Coleoptera: Melandryidae) from Baltic amber

Vitalii I. Alekseev

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New extinct monotypic genus of the subfamily Melandryinae Leach, 1815 is described and illustrated on the base of an inclusion in Baltic amber. The new taxon is compared with the morphologically close extant and fossil ones. *Quasianisoxya* gen.nov. is characterized by small body size, long antennae, bilobed penultimate tarsomeres, transverse and broadest at base pronotum, contiguous procoxae.

Key words: taxonomy, Tertiary, Eocene amber, false darkling beetles, fossil

Vitalii I. Alekseev. Department of Zootechny, FGBOU VPO "Kaliningrad State Technical University", Sovetsky av. 1. 236000 Kaliningrad, Russia. E-mail: alekseew0802@yahoo.com

INTRODUCTION

This work is the sixth paper describing false darkling beetles found in Baltic amber (Seidlitz 1898; Alekseev & Bukejs 2012; Alekseev 2014; Alekseev & Bukejs 2015; Bukejs & Alekseev 2015). The Lagerstätte is rich in species diversity, with the potential of uncovering many undescribed species. The updated list of fossil Melandryidae was provided in Bukejs & Alekseev (2015). In the current paper one new taxon of Melandryinae, assigned to the new genus *Quasianisoxya* gen.nov., is described and illustrated from Baltic amber.

MATERIALS AND METHODS

The amber inclusion under study belongs to the collection of Christel and Hans-Werner Hoffeins (Hamburg, Germany) and will eventually be deposited at the Senckenberg Deutsches Entomologisches Institut (SDEI), Müncheberg, Germany.

The piece was polished by hand only, thus allowing dorsal and lateral views of the included beetle.

Photos were taken with a Zeiss AxioCamICc 3 digital camera mounted on a Zeiss Stemi 2000-stereomicroscope. Reconstruction was made based on free–hand drawing during examination of the original specimen. The figures were edited using Adobe Photoshop CS8.

SYSTEMATIC PALEONTOLOGY

Family Melandryidae Leach, 1815
Subfamily Melandryinae Leach, 1815
Tribe Dircaeini Mulsant, 1856
Genus *Quasianisoxya* gen. nov.

Type species. *Quasianisoxya curonensis* sp. nov.

Differential diagnosis. The combination of small overall body size (2.25 mm), long antennae extending to middle of elytra, bilobed penultimate tarsomeres, pronotal base without impressions, irregular punctuated elytra, elongate maxillary apical palpomere, widest at base pronotum and elytral base wider than pronotum differs from all currently described extant and extinct genera of Melandryidae. This new genus resembles recent *Anisoxya* Mulsant, 1856 (not separated procoxae, rasp-like punctuation of pronotum, very long first metatarsomere etc.), but can be distinguished by the long antennae with cylindrical segments, equal in length spurs of meso- and metatibiae, basally margined and comparatively narrow pronotum and different body shape.

Quasianisoxya gen. nov. can be easily distinguished from two other Baltic amber melandryid genera of the approximately equal small length (2-4 mm), elongate body form and having long antennae (*Abderina* Seidlitz, 1898 and *Electroabdera* Alekseev, 2014) by the following characters: elongate ultimate maxillary palpomere, not longer than penultimate (spindle-shaped in *Electroabdera*), bilobed penultimate tarsomeres (cylindrical in *Abderina*), filiform antennae (serrate in *Electroabdera*), narrower than elytra pronotum (pronotum is wider than elytra at humeri in *Electroabdera* and as wide as elytral base in *Abderina*), distinctly transverse pronotum (slightly wider than long in *Abderina*), contiguous coxae (distinctly separated in *Electroabdera*).

Derivatio nominis. The new genus-group name *Quasianisoxya* is composed of Latin "quasi" (meaning like, as if, almost, nearly) and the genus name "*Anisoxya*". The gender is feminine.

Species composition. One new extinct species.

Remarks. The thorax laterally is not well visible because of cracs and the legs position.

***Quasianisoxya curonensis* sp. nov.**

(Figs. 1-4)

Material examined. *Holotype* No. 1799-6 [CCHH], male (dilated protarsi, extruded male genitalia). The complete beetle inclusion is preserved in a polished piece of transparent amber with an orange shade without any further fixation. The amber piece is triangular, with maximum length 12 mm and maximum width 2 mm. The animal syninclusions are represented by one mite (Acari) about 0.3 mm in length.

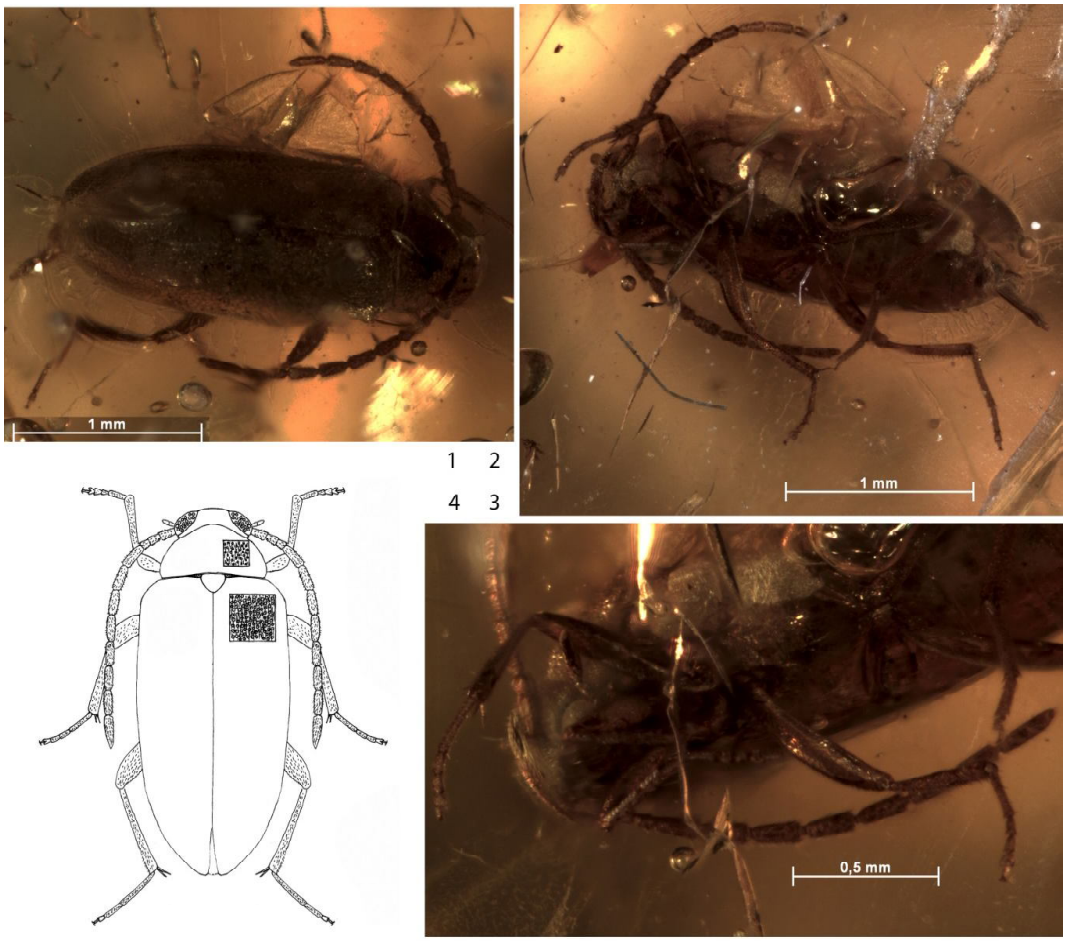
Type strata. Baltic Amber. Eocene.

Type locality. Russia, the Kaliningrad region, the Sambian [Samland] peninsula, Yantarny settlement [formerly Palmnicken].

Description. Small (body length: 2.25 mm), moderately convex, elongate (body length 2.4× maximum body width). Uniformly brown-rufous. Upper surface clothed with uniformly long, recumbent pubescence.

Head. Eyes large, prominent, emarginate, oval, coarsely facetted, well-separated from hind margin of head; interocular space wider than one ocular diameter; temples approximately 1/3 of ocular diameter; frons and vertex with quite dense rasp-like punctures, densely pubescent. Maxillary apical palpomere elongate, slightly rounded, as long as penultimate. Antenna filiform, long, robust; 11-segmented, pubescent; reaching apical half of elytra when folded backward; antennomere III shortest, antennomere XI longest; antennomere length ratios: 7-5-3-10-10-10-10-10-10-10-15; antennomeres cylindrical, symmetrical.

Thorax. Pronotum convex, finely bordered basally, transverse, twice wider than long, widest basally, without impressions; disc with irregularly spaced punctures, densely pubescent. Punctation dense (separated by distance 1x that of the puncture diameter), rasp-like. Scutellum flat, distinct, triangular, rounded apically. Elytron elongate (elytral length 6.3× pronotal length), moderately convex; sides almost parallel; width



Figs.1-4. *Quasianisoxya curonensis* gen. et sp. nov., holotype, No. 1799-6 [CCHH]: 1- dorsal view; 2- ventral view; 3 - forebody ventrally; 4 – reconstruction of the habitus dorsally.

0.25× length; pubescence long and uniform; punctation shallow, irregular, large and dense. Scutellar stria absent. Base of elytra wider than pronotal base. Epipleura narrow, widest in basal one-quater of length and then gradually narrowing posteriorly, reaching first ventrite.

Abdomen. 5-segmented; length ratios of ventrites 1–5 (measured laterally): 10-9-7-5-4. The distal parts of the reproductive system are visible, making definite sexual determination possible.

Legs. Tarsal formula 5–5–4. All coxae transverse, contiguous (not separated by process). Metafemur flattened, simple. Metatibiae with two short spurs of equal length, slightly longer than the same of mesotibiae. All tibiae slender, without ridges, broadened towards apices, with short sparse hairs. Metatarsomere I approximately 1.3× longer than metatarsomeres II-IV combined. Metatarsomere III, pro- and mesotarsomere IV bilobed, protarsomere III widened. Tarsal claws simple, free, equal in length, acute.

Differential diagnosis. As for the genus (vide supra).

Derivatio nominis. Toponymical epithet, the species is named after the area of tribe Curonians (kuršenieki, kuršininkai), which inhabited since

antiquity the territory of the south-eastern and the eastern Baltic coasts, first at all the territory of the peninsula Curonian Spit (Lithuanian: Kuršių nerija, Latin: Neria curonensis, German: die Kurische Nehrung).

DISCUSSION

The family of false darkling beetles was apparently more diverse in Eocene than at present time. The representatives of the extinct Eocene lineages (*Quasianisoxya* and *Electroabdera*) show the mixed characters of different taxonomical levels. Further detailed morphological study of available fossils in a phylogenetic framework is greatly needed to clarify the phylogenetic positions of these taxa. At the same time, the Eocene European "fauna" of inclusions obtained from Baltic amber includes the taxa unequivocally assigned to the recent genera: *Abdera* Stephens, 1832; *Microscapha* LeConte, 1866; *Orchesia* Latreille, 1807; *Serropalpus* Hellenius, 1786. The logical taxonomical system of the melandryid beetles including taxa from Eocene Baltic amber should be more complicated than present-day existing one [2 subfamilies, 8 tribes according to Bouchard et al. (2011)]. Revision of the melandryid systematic is needed and would be possible after use of the already described taxa and addition of new material from future descriptive papers dealing with false darkling beetles from Baltic amber.

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