

Two new genera and four new species of fossil weevils (Coleoptera: Curculionoidea) in Baltic amber

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Legalov, A. A. 2016: Two new genera and four new species of fossil weevils (Coleoptera: Curculionoidea) in Baltic amber. — Entomol. Fennica 27: 57–69.

Two new genera, *Palaeodexipeus* **gen. n.** (type species: *Palaeodexipeus kirejtshuki* **sp. n.**) and *Succinalophus* **gen. n.** (type species: *S. attenboroughi* **sp. n.**), and four new species, *Oxycraspedus poinari* **sp. n.**, *Palaeodexipeus kirejtshuki* **sp. n.**, *Dorytomus electrinus* **sp. n.** and *Succinalophus attenboroughi* **sp. n.**, are described and illustrated. These are the first records of the tribes Oxycraspedini in the family Belidae, and Stromboscerini and Tropiphorini in Curculionidae in the Baltic amber.

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Received 25 September 2015, accepted 28 October 2015

1. Introduction

Curculioinoid beetles are well represented in the fossil record (Bouchard *et al.* 2011, Legalov 2015), probably as a result of their solid integument and ability of many groups to fly. Fossil representatives of wingless extant weevils are also known primarily from amber. The oldest weevils are discovered in layers of the middle–late Jurassic of Karatau, and they represent 57 species from 3 families (Gratshev & Legalov 2011, Legalov 2011, 2013b, Gratshev & Legalov 2014). The number of the fossil specimens and described species rapidly increases thanks to current studies, and especially in the period between the early Cretaceous and the Neogene (Legalov 2012d). The superfamily Curculionoidea is the major group of Coleoptera represented in the Cenozoic sedimentary deposit that exhibits extraordinary fossils with exceptional preservation such as Green River and Florissant beds in USA, Aix-en-Provence in France and Rott and Oeningen in

Germany, as well as in the Baltic and Dominican amber (Legalov 2015).

In this paper, two new genera and four new species from the Baltic amber are described.

2. Materials and methods

The Baltic amber mines are located along the Baltic Sea coast at the Amber quarry of Yantarny near Kaliningrad in the Kaliningrad Oblast (Russia). The amber from this deposit was probably produced by the tree pine *Pinus succinifera* (Goepfert) Conwentz (Schubert 1961). The Baltic amber from this Prussian Formation dates back to the upper Eocene (Grigjalis *et al.* 1971), although sometimes it is considered older, even the Lowermost Eocene (Weitschat & Wichard 2010).

The type specimens are stored in the Institute of Systematics and Ecology of Animals, the Siberian Branch of the Russian Academy of Sciences

(Novosibirsk, Russia). Comparative material is deposited in the Institute of Systematics and Ecology of Animals, Museum für Tierkunde, Senckenberg Naturhistorischen Sammlungen Dresden (Germany) and the Zoological Institute of the Russian Academy of Sciences.

Descriptions and photographs were taken using the Zeiss Stemi 2000-C dissecting stereomicroscope.

The systematics of the studied taxa are given by Legalov (2009, 2015) and Gratshev and Legalov (2014) with corrections by Zherikhin and Egorov (1991), Kuschel (1995a) and Anderson (2002). The terminology of the names of body parts were used here after Klimaszewski and Watt (1997) and Anderson (2002) with some corrections.

3. Systematics

3.1. Description of *Oxycraspedus poinari*

sp. n.

Belidae Schoenherr, 1826

Oxycoryninae Schoenherr, 1840

Oxycraspedini Marvaldi & Oberprieler, 2006

Oxycraspedus Kuschel, 1955

Oxycraspedus poinari sp. n. (Fig. 1)

Type material. Holotype: no. BA2015/2, female.

Diagnosis. This new species is similar to *O. cribricollis* (Blanchard, 1851) from Chile and Argentina (Ferrer *et al.* 2007, Legalov 2009) but differs in the protibiae without a fringe of long setae, a body black, a more convex form and wider pronotum and elytra.

Description. Female. Body length (without rostrum) 3.7 mm; rostrum length 1.1 mm.

Body black, naked, partially appearing silvery shiny due to the presence of cavities between specimen and internal surface of its impression.

Head. Head 0.4 times as long as rostrum; rostrum long, narrow, almost equal in length to pronotum, 5.2 times longer than wide at apex and in middle, 3.4 times longer than wide at base, weakly convex, finely and densely punctate; forehead wide, 1.2 times as wide as rostrum base width, flattened, densely punctate, without median striae, without tubercles on either side; eyes

large, rounded, convex, 1.1 times longer than wide; vertex weakly flattened, punctate; temples short, 0.8 times as long as eye, punctate; antennae inserted at base of rostrum ventrally, non-geniculate, quite long, reaching first third of pronotum; scape quite long, 2.4 times longer than wide; desmomerer almost conical; 1st desmomerer 1.6 times longer than wide, 0.6 times as long and 0.9 times as wide as scape; 2nd desmomerer 2.2 times longer than wide, 1.2 times as long and 0.8 times as wide as 1st desmomerer; 3rd desmomerer 1.8 times longer than wide, 0.7 times as long and 0.9 times as wide as 2nd desmomerer; 4th desmomerer equal to 3rd desmomerer; 5th desmomerer 1.4 times longer than wide, 0.9 times as long and 1.1 times as wide as 4th desmomerer; 6th desmomerer equal to 5th desmomerer; 7th desmomerer 1.3 times longer than wide, 1.1 times as long and 1.2 times as wide as 6th desmomerer; club noncompact, 0.6 times as long as flagellum; 1st club article 1.3 times longer than wide, 1.1 times as long and 1.2 times as wide as 7th desmomerer; 2nd and 3rd club articles fused, 2.1 times longer than wide, 2.6 times as long and 1.6 times as wide as 1st club article, weakly acuminate.

Pronotum. Pronotum transverse, 1.4 times longer than apical width, 0.9 times longer than wide in middle and at base; disk narrowed at apex and at base, densely and quite coarsely punctate.

Mesonotum. Scutellum small, rectangular.

Elytra. Elytra weakly convex, slightly elongate, 2.3 times as long as pronotum, 1.6 times longer than wide at base, 1.4 times longer than wide in middle, 2.1 times longer than wide in apical quarter; greatest width behind middle; humeri flattened; punctured striae quite regular and distinct; scutellar striole present; punctures rounded, dense; intervals somewhat flat, narrow, slightly wider than punctures; epipleuron distinct.

Thorax. Prosternum punctate, with lateral serrulate carina; precoxal part of prosternum weakly elongate, 1.2 times as long as procoxa length; procoxal cavities round, separated; postcoxal part of prosternum short, 0.5 times as long as procoxa length; mesocoxal cavities rounded, separated; metasternum short, 1.9 times as long as metacoxa length, convex, punctate; metepisternum narrow, densely punctate.

Abdomen. Abdomen weakly convex; ventrites free; 1st ventrite 1.2 times as long as

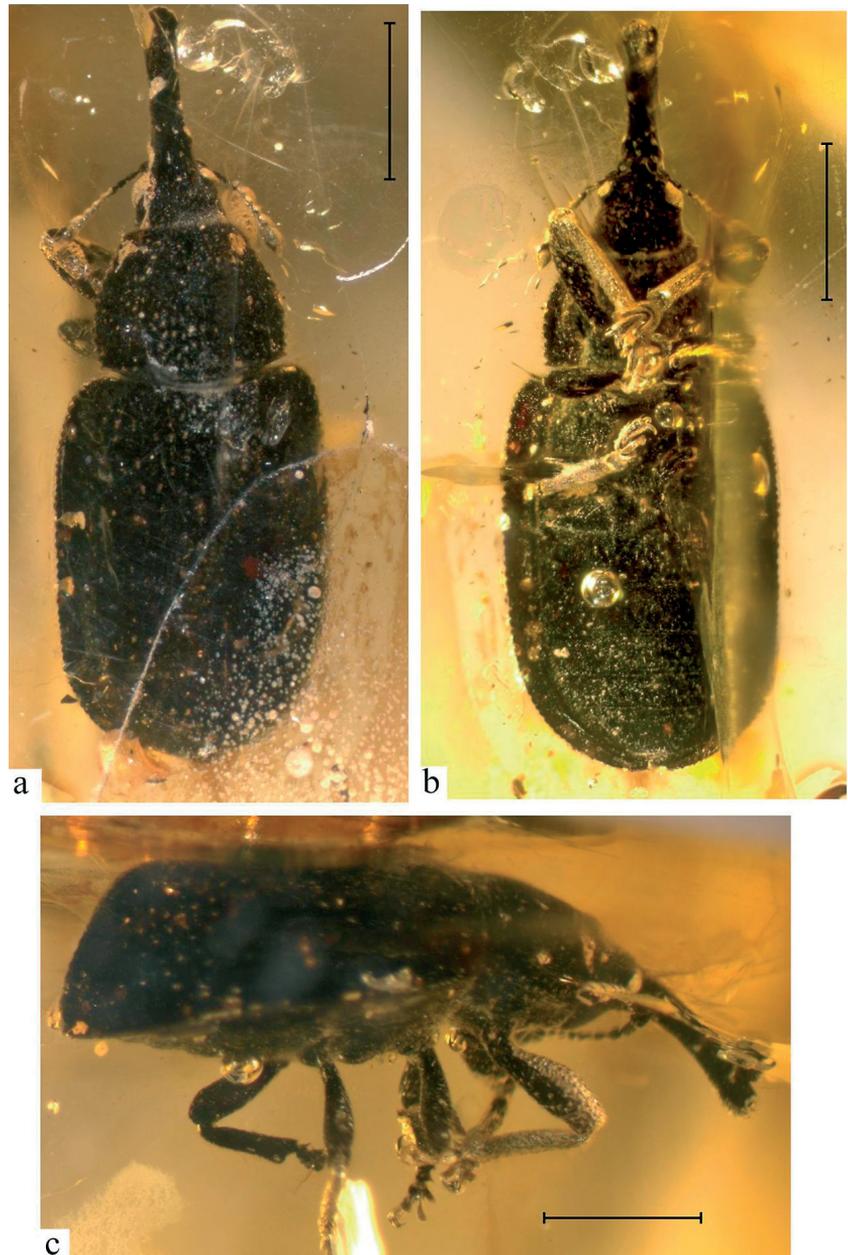


Fig. 1. Habitus of *Oxycraspedus poinari* sp. n. (holotype). – a. Dorsal view. – b. Ventral view. – c. Lateral (right) view. Scale bar = 1 mm.

metacoxal length; 2nd ventrite 0.9 times as long as 1st ventrite; 3rd ventrite 0.9 times as long as 2nd ventrite; 4th ventrite 0.7 times as long as 3rd ventrite; 5th ventrite 1.5 times as long as 4th ventrite.

Legs. Legs long; femora weakly clavate and flattened, without teeth; profemur length/width ratio 2.9; mesofemur length/width ratio 2.9; metafemur length/width ratio 2.8; trochanter con-

ical; tibiae almost straight, weakly flattened, widened at apices, with costate dorsal margin, with weak apical setose fringe, without mucro; protibiae possessing a wide apical groove clothed in fine, dense vestiture on the inner face opposite the tarsal articulation, without fringe of long setae, length/width ratio 5.1; mesotibia length/width ratio 4.0; metatibia length/width ratio 5.1; tarsi long, with thick light erect setae dorsally; 1st

tarsomere triangular, shorter than the second and third tarsomeres combined; 2nd and 3rd tarsomeres widely bilobed; 5th tarsomere elongate; claws large, connected, without teeth; protarsi: 1st tarsomere 0.8 times longer than wide; 2nd tarsomere 0.6 times longer than wide, 1.6 times as long as and 2.0 times as wide as 1st tarsomere; 3rd tarsomere 1.1 times longer than wide, 2.1 times as long as and 1.1 times as wide as 2nd tarsomere; 5th tarsomere 3.6 times longer than wide, 1.1 times as long as and 0.3 times as wide as 3rd tarsomere; mesotarsi: 1st tarsomere 0.7 times longer than wide; 2nd tarsomere 0.7 times longer than wide, 1.8 times as long and 1.9 times as wide as 1st tarsomere; 3rd tarsomere 0.9 times longer than wide, 1.6 times as long and 1.2 times as wide as 2nd tarsomere; 5th tarsomere 2.7 times longer than wide, 1.1 times as long and 0.4 times as wide as 3rd tarsomere; metatarsi: 1st tarsomere 0.8 times longer than wide; 2nd tarsomere 0.8 times longer than wide, 1.8 times as long and 2.0 times as wide as 1st tarsomere; 3rd tarsomere 1.1 times longer than wide, 1.6 times as long and 1.1 times as wide as 2nd tarsomere; 5th tarsomere 2.5 times longer than wide, 1.1 times as long and 0.5 times as wide as 3rd tarsomere.

Type locality and type strata. Amber mines located along the Baltic Sea coast and Yantarny Amber quarry near Kaliningrad, Kaliningrad region, Russia, upper Eocene, Prussian Formation.

Etymology. The name is dedicated to my dear colleague, Dr. George O. Poinar, Jr. (Corvallis, USA), who has made a great contribution to the study of amber fauna.

Remarks. The new species belongs to the family Belidae based on the protibiae possessing a wide apical groove clothed in fine, dense vestiture on the inner face opposite the tarsal articulation, the first to fifth ventrites free and non-geniculate antennae. The transverse and bilobed second tarsomere, antennae inserted at the base of the rostrum, the distinct club, first tarsomere shorter than the second and third tarsomeres combined, suggest placement in the subfamily Oxycoryninae. The separated procoxal cavities suggest that the new species belongs to the monotypical tribe Oxycraspedini with the genus *Oxycraspedus*.

3.2. Description of *Palaeodexipeus* gen. n. and a new species

Curculionidae Latreille, 1802

Dryophthorinae Schoenherr, 1825

Stromboscerini Lacordaire, 1866

Palaeodexipeus gen. n.

Type species: *Palaeodexipeus kirejtshuki* sp. n.

Diagnosis. This new genus is similar to the genus *Dexipeus* Pascoe, 1885 from Japan, Java and Sumatra (Alonso-Zarazaga & Lyal 1999) but differs by the unusual carinate elytral intervals, antennal club weakly obliquely truncate and the rostrum not widened at the antennal attachment. From the Oriental genus *Orthosinus* Motschulsky, 1863 and the genus *Stenommatomorphus* Nazarenko, 2009 from Eocene Rovno amber it differs by the eye being much wider than high and the carinate elytral intervals. The obliquely truncate antennal club of the new genus separates it from the Oriental genus *Nephius* Pascoe, 1885 and the genus *Tasactes* Faust, 1894 from Myanmar (Alonso-Zarazaga & Lyal 1999) that have an antennal club with a subconical apex. The new genus is clearly distinguished from other genera of Stromboscerini (*Besuchetiella* Osella, 1974, *Dryophthoroides* Roelofs, 1879, *Parasynommatus* Voss, 1956, *Stromboscerus* Schoenherr, 1838, *Synommatoides* Morimoto, 1978, *Synommatus* Wollaston, 1873, *Tetrasynommatus* Morimoto, 1985) by the antennae with a 6-articled flagellum.

Etymology. The name is formed from the Greek “αρχαία” (ancient) and the generic name *Dexipeus*.

Palaeodexipeus kirejtshuki gen. n. et sp. n. (Figs. 2–3)

Type material. Holotype: no. BA2015/3, male.

Description. Male. Body length (without rostrum) 3.1 mm; rostrum length 0.7 mm.

Body black, naked, appearing silvery shiny due to the presence of cavities between specimen and internal surface of its impression.

Head. Head 0.4 times as long as rostrum; mouthparts with prementum withdrawn into oral cavity; rostrum long, quite narrow, 3.2 times longer than width at apex, 3.3 times longer than width in middle, 3.0 times longer than width at



Fig. 2. Lateral (left) view of *Palaeodexipeus kirejtshuki* sp. n. (holotype). Scale bar = 1 mm.

base, 0.9 times as long as pronotum, weakly curved, finely punctate; antennal scrobes distinct; forehead narrow, 0.8 times as wide as rostrum base width, flattened, punctate, without median striae; eyes quite small, flat, 0.6 times longer than wide, separated ventrally; vertex weakly flattened, sparsely punctate; temples quite long, 1.7 times as long as eye, punctate; antennae inserted in first third of rostrum ventrally, geniculate, quite short, reaching first third of pronotum; scape 3.3 times longer than wide; flagellum with 6 wide-conical desmomes; 1st desmome 1.1 times longer than wide, 0.3 times as long and 0.8 times as wide as scape; 2nd desmome 0.8 times longer than wide, 0.7 times as long and equal in width to 1st desmome; 3rd desmome 0.4 times longer than wide, 0.6 times as long and equal in width to 2nd desmome; 4th desmome 0.4 times longer than wide, equal in length and 1.1 times as wide as 3rd desmome; 5th desmome equal to 4th desmome; 6th desmome 0.3 times longer than wide, equal in length and 1.2 times as wide as 5th desmome; club compact and asymmetrical, with elongated 1st article and fused remaining articles, 1.3 times longer than wide, almost equal to funicle, weakly obliquely truncate, with tomentose apical surface flat.

Pronotum. Pronotum 1.5 times longer than apical width, 1.2 times longer than width in middle and 1.1 longer than width at base; disk weakly narrowed at apex and at base, densely punctate.

Mesonotum. Scutellum small, narrow, triangular.

Elytra. Elytra convex, elongate, 2.1 times as long as pronotum, 1.7 times longer than width at base, 1.5 times longer than wide in middle, 2.3

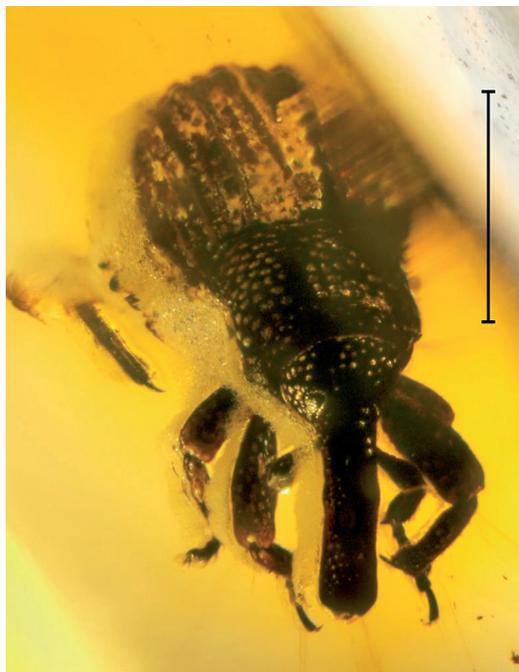


Fig. 3. Frontal view of *Palaeodexipeus kirejtshuki* sp. n. (holotype). Scale bar = 1 mm.

times longer than wide in apical quarter; greatest width in middle; humeri flattened; punctured striae regular and distinct; punctures rounded and deep; intervals convex, narrow, equal in wide to stria width; odd intervals as carinae.

Thorax. Prosternum largely punctate, without postocular lobes; precoxal part of prosternum weakly elongate, 1.1 times as long as procoxa length; procoxal cavities round, connected; postcoxal part of prosternum 0.7 times as long as procoxa length; mesocoxal cavities rounded, separated; metasternum long, 3.3 times as long as metacoxa length, weakly convex, largely punctate; metepisternum concealed by elytra.

Abdomen. Abdomen weakly convex; ventrites oriented in one plane; 1st and 2nd ventrites elongate and 3rd and 4th ventrites short; 1st ventrite 2.2 times as long as metacoxal length; 2nd ventrite 0.7 times as long as 1st ventrite; 3rd ventrite 0.3 times as long as 2nd ventrite; 4th ventrite equal to 3rd ventrite; 5th ventrite 2.4 times as long as 4th ventrite; pygidium sulcate.

Legs. Legs long; femora weakly clavate, without teeth; profemur length/width ratio 2.6; mesofemur length/width ratio 3.5; metafemur

length/width ratio 4.3; trochanter conical; tibiae almost straight, flattened, with long uncus and two apical bunches of setae; protibiae length/width ratio 4.4; metatibia length/width ratio 5.3; tarsi long, with thick light erect setae dorsally; 1st tarsomere conical; 2nd and 3rd tarsomeres not bilobed; 5th tarsomere elongate, with large free claws without teeth, widely separated by lobes; protarsi: 1st tarsomere equal in length and width; 2nd tarsomere 0.9 times longer than wide, 0.9 times as long and equal in width to 1st tarsomere; 3rd tarsomere 1.3 times longer than wide, 1.3 times as long and 0.9 times as wide as 2nd tarsomere; 5th tarsomere 3.0 times longer than wide, 1.8 times as long and 0.8 times as wide as 3rd tarsomere; mesotarsi: 1st tarsomere 0.9 times longer than wide; 2nd tarsomere equal in length and width, equal in length and 0.9 times as wide as 1st tarsomere; 3rd tarsomere 1.3 times longer than wide, 1.3 times as long and equal in width to 2nd tarsomere; 5th tarsomere 4.5 times longer than wide, 1.8 times as long and 0.5 times as wide as 3rd tarsomere; metatarsi: 1st tarsomere 1.1 times longer than wide; 2nd tarsomere equal in length and width, 0.8 times as long and 0.9 times as wide as 1st tarsomere; 3rd tarsomere 1.3 times longer than wide, 1.3 times as long and equal in width to 2nd tarsomere; 5th tarsomere 4.5 times longer than wide, 1.8 times as long and 0.5 times as wide as 3rd tarsomere.

Type locality and type strata. Amber mines located along the Baltic Sea coast and Yantarny Amber quarry near Kaliningrad, Kaliningrad region, Russia, upper Eocene, Prussian Formation.

Etymology. The name is dedicated to Dr. Alexander G. Kirejtshuk (Saint Petersburg, Russia and Paris, France), for his numerous and informative studies on amber beetles.

Remarks. The tibiae with uncus and two apical clusters of setae, ventrites oriented in one plane, elongate first and second ventrites and short third and fourth ventrites, distinct antennal scrobes and geniculate antennae with a compact club indicate that the new species belongs to the family Curculionidae. The new species is placed in the subfamily Dryophthorinae based on the 5th tarsomere having claws widely separated by lobes, mouthparts with prementum withdrawn into oral cavity, antennal club asymmetrical and the first article of the club elongated with the

other articles fused. The connected procoxal cavities, metepisternum concealed by the elytra, sulcate pygidium, antennal club weakly obliquely truncate, flat tomentose apical surface, and eyes separated ventrally, suggest placement in the tribe Stromboscerini from the Rovno amber, Madagascar and Oriental region.

3.3. Description of *Dorytomus electrinus* sp. n.

Curculioninae Latreille, 1802

Ellescini C. G. Thomson, 1859

Dorytomus Germar, 1817

Dorytomus electrinus sp. n. (Figs. 4–5)

Type material. Holotype: no. BA2015/5, female.

Diagnosis. This new species is similar to *D. luridus* (Mannerheim, 1853) from North and West of North America (O'Brien 1970) but differs by the antennae inserted beyond middle of rostrum, mesosternal process convex, smaller body size, naked black body, larger eyes and wide elytra. It is distinguished from *D. edoughensis* Desbrochers, 1875 from Europe and Siberia (Dieckmann 1986) by the naked black body, wide elytra, antennae inserted beyond middle of rostrum, and wider and shorter rostrum.

Description. Female. Body length (without rostrum) 2.4 mm; rostrum length 0.8 mm.

Body black, naked, without scales and setae appearing silvery shiny due to the presence of cavities between specimen and internal surface of its impression.

Head. Head 0.4 times as long as rostrum; rostrum long, narrow, 8.1 times longer than wide at apex, 7.1 times longer than wide in middle, 5.2 times longer than wide at base, 1.3 times as long as pronotum, weakly curved, finely punctate dorsally, densely punctate laterally; antennal scrobes distinct, with the dorsal margin directed toward ventral margin of eye; forehead narrow, narrower than rostrum base width, flattened, finely punctate, without median striae; eyes large, flat, 0.7 times longer than wide, separated ventrally, displaced downwards; vertex weakly flattened, rarely punctate; temples short; antennae inserted beyond middle of rostrum laterally, geniculate, quite long, reaching basal third of pronotum;



Fig. 4. Lateral (left) view of *Dorytomus electrinus* sp. n. (holotype). Scale bar = 1 mm.



Fig. 5. Lateral (right) view of *Dorytomus electrinus* sp. n. (holotype). Scale bar = 1 mm.

scape 8.0 times longer than width, distinctly not reaching eye; flagellum with 7 conical desmomes; 1st desmome 2.3 times longer than width, 0.3 times as long and almost equal in wide to scape; 2nd desmome 1.5 times longer than wide, 0.4 times as long and 0.7 times as wide as 1st desmome; 3rd–5th desmomes subequal to 2nd desmome; 6th desmome 1.4 times longer than wide, 1.2 times as long and 1.3 times as wide as 5th desmome; 7th desmome 1.1 times longer than wide, 1.3 times as long and 1.6 times as wide as 6th desmome; club compact, 1.7 times longer than wide, 0.4 times as long as funicle, 1.8 times as wide as 7th desmome.

Pronotum. Pronotum 1.3 times longer than apical width, 0.9 times longer than width in middle and 0.8 longer than width at base; disk weakly narrowed at apex and at base, densely and finely punctate; distance between points larger than diameter of points.

Mesonotum. Scutellum small, trapezoidal.

Elytra. Elytra convex, weakly elongate, 2.5 times as long as pronotum, 1.8 times longer than wide at base, 1.5 times longer than wide in middle, 1.9 times longer than wide in apical quarter; greatest width in middle; humeri weakly flattened; punctured striae regular and distinct; punctures rounded and deep; intervals weakly convex, wide, 2.0–4.0 times as wide as stria width, very finely punctate; 9th stria merges with 10th stria at the level of metacoxae; lateral margins of elytra not arcuately produced laterally at the overlapping point of the apex of metepisternum and filled with setae internally

Thorax. Prosternum densely punctate, with-

out postocular lobes; precoxal part of prosternum fairly long, 0.8 times as long as procoxa length, without impression limited on each side of the longitudinal carinae; procoxal cavities round, connected; postcoxal part of prosternum short, 0.2 times as long as procoxa length; mesocoxal cavities rounded, separated; mesosternal process convex; metasternum quite long, 1.2 times as long as metacoxa length, weakly convex, rarely largely punctate; metepisternum narrow, 5.7 times longer than wide, with row of large points.

Abdomen. Abdomen weakly convex, flattened in middle; ventrites oriented in one plane; 1st and 2nd ventrites quite elongate and 3rd and 4th ventrites quite short; 1st ventrite 0.8 times as long as metacoxal length; 2nd ventrite 1.1 times as long as 1st ventrite; 3rd ventrite 0.7 times as long as 2nd ventrite; 4th ventrite 0.9 times as long as 3rd ventrite; 5th ventrite 2.0 times as long as 4th ventrite.

Legs. Legs long; femora weakly clavate, with teeth; profemur length/width ratio 2.4; mesofemur length/width ratio 2.7; metafemur length/width ratio 2.9; trochanter conical; tibiae almost straight, flattened, with small uncus displaced by inner apical angle and two apical bunches of setae; protibiae length/width ratio 4.7; mesotibia length/width ratio 6.0; metatibia length/width ratio 5.7; tarsi long, with thick light erect setae dorsally; 1st tarsomere conical; 2nd and 3rd tarsomeres not bilobed; 5th tarsomere elongate, with large free claws without teeth, widely separated by lobes; mesotarsi: 1st tarsomere 1.2 times longer than wide; 2nd tarsomere equal in length and width, 0.8 times as long and equal in width to 1st tarsomere; 3rd tarsomere equal in length and

width, 1.4 times as long and 1.4 times as wide as 2nd tarsomere; 5th tarsomere 2.7 times longer than wide, 1.2 times as long and 0.4 times as wide as 3rd tarsomere; metatarsi: 1st tarsomere 1.7 times longer than wide; 2nd tarsomere 1.3 times longer than wide, equal in length and 1.3 times as wide as 1st tarsomere; 3rd tarsomere equal in length and width, 1.4 times as long and 1.8 times as wide as 2nd tarsomere; 5th tarsomere 3.7 times longer than wide, 1.6 times as long and 0.4 times as wide as 3rd tarsomere.

Type locality and type strata. Amber mines located along the Baltic Sea coast and Yantarny Amber quarry near Kaliningrad, Kaliningrad region, Russia, upper Eocene, Prussian Formation.

Etymology. The name is formed from the Latin word for “amber” – “electri”.

Remarks. The tibiae with uncus and two apical clusters of setae, ventrites oriented in one plane, elongate first and second ventrites and short third and fourth ventrites, distinct antennal scrobes and geniculate antennae with a compact club indicate that the new species belongs to the family Curculionidae. The new species is placed in the subfamily Curculioninae based on the tibiae with small uncus displaced by inner apical angle and 9th stria merging with 10th stria at the level of metacoxae. The antennal scrobes directed toward the eye, precoxal portion of the prosternum elongated, metafemora weakly clavate, not reaching the apex of the abdomen, flagellum 7-articled, claws free, procoxal cavities connected and the tibiae with uncus places the new species in the tribe Ellescini. The femora with teeth and tarsal claws without teeth indicate that the new species belongs to the genus *Dorytomus*.

3.4. Description of *Scuccinalophus* gen. n. and a new species

Entiminae Schoenherr, 1823

Tropiphorini Marseul, 1863

Scuccinalophus gen. n.

Type species: *Scuccinalophus attenboroughi* sp. n.

Diagnosis. This new genus is characterized by eyes that are strongly displaced downwards and a small body size (3.1 mm). The first charac-

ter separates it from all other genera of this tribe. There are three extant genera with a small body size (2.8–4.6 mm). The new genus differs from Beringian *Vitaviyus* Kissinger, 1974 and *Lepidophorus* W. Kirby, 1837 from North America (O’Brien & Wibmer 1982) and Chukchi Peninsula (Korotyayev 1980) by mandibles being with distinct prominent scars at the attachment of the deciduous processes, the scape reaching the distal margin of the eye and the prosternum being without an ocular lobe. From *Limalophus* Scudder, 1893 from the middle Eocene of USA, it is distinguished by the longer rostrum and pronotum. The new genus is very similar to the European genus *Tropiphorus* Schoenherr, 1842 but differs by the free tarsal claws, narrower body and longer pronotum.

Etymology. The name is formed from the Latin word for “Amber” – “succinum” and the generic name Alophus.

Scuccinalophus attenboroughi gen. n. et sp. n. (Fig. 6)

Type material. Holotype: no. BA2015/1, male.

Description. Male. Body length (without rostrum) 3.1 mm; rostrum length 0.5 mm.

Body black, with very dense short, wide, grey-brown contiguous and semierect setiform scales, appearing silvery shiny due to the presence of cavities between specimen and internal surface of its impression.

Head. Rostrum quite short, wide, 0.8 times as long as pronotum, 2.0 times longer than wide in middle, weakly curved, densely punctate, with two sharp transverse carinae, pterygia well developed; scrobes distinct, visible dorsally, directed to upper edge of eyes; forehead wide, convex, densely punctate, without striae; eyes small, 0.6 times longer than wide, barely convex, displaced downwards; vertex weakly flattened, densely punctate; temples very short; mandibles with distinct prominent scars of attachment of deciduous processes; geniculate antennae inserted at apical third of rostrum laterally; antennae long, reaching basal third of pronotum, with rare semierect setae; scape 7.5 times longer than wide, 1.1 times as long as flagellum; desmomeres conical; 1st desmomere 2.0 times longer than wide, 0.2 times as long and 0.8 times as wide as scape; 2nd desmomere 1.1 times longer than wide, 0.5 times

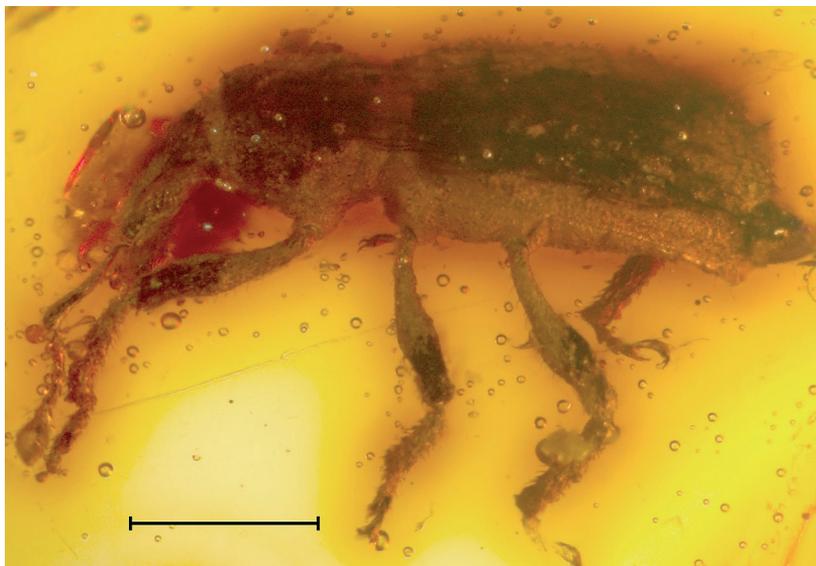


Fig. 6. Lateral (right) view of *Succinalophus attenboroughi* sp. n. (holotype). Scale bar = 1 mm.

as long and 0.9 times as wide as 1st desmomer; 3rd desmomer 1.1 times longer than wide, 0.9 times as long and 0.9 times as wide as 2nd desmomer; 4th desmomer equal to 3rd desmomer; 5th desmomer equal to 2nd desmomer, 1.1 times as long and 1.1 times as wide as 4th desmomer; 6th desmomer 1.3 times longer than wide, 1.3 times as long and 1.1 times as wide as 5th desmomer; 7th desmomer 1.3 times longer than wide, 1.1 times as long and 1.1 times as long as 6th desmomer; club compact, 1.3 times longer than wide, 0.5 times as long as flagellum, weakly acuminate.

Pronotum. Pronotum bell-shaped, 1.3 times longer than apical width, 1.0 times longer than wide in middle and 1.2 longer than wide at base, 0.8 times as wide as elytral base; greatest width in middle; disk narrowed at apex and at base, densely punctate, without ocular lobes.

Elytra. Elytra weakly elongate and distinctly convex, 2.1 times longer than wide at base, 2.0 times longer than wide in middle, 2.5 times longer than wide in apical quarter, 2.3 times as long as pronotum; greatest width behind middle; humeri completely flattened; punctured striae regular and distinct; punctures elongate-oval, small and dense; intervals flat, wide, 6.0–7.0 times as wide as striae, with middle row of setiform semierect scales.

Thorax. Prosternum densely punctate; precoxal part of prosternum elongate, 1.1 times as long as procoxa length; procoxal cavities round,

joined; postcoxal part of prosternum short, 0.5 times as long as procoxa length; mesocoxal cavities rounded, narrowly separated; metasternum long, 1.7 times as long as metacoxa length, convex, punctate; metepisternum narrow, 8.4 times longer than wide.

Abdomen. Abdomen flattened; ventrites oriented in one plane; 1st and 2nd ventrites elongate, subequal in length; 1st ventrite 1.5 times as long as metacoxa; 3rd and 4th ventrites short, equal in length; 3rd ventrite 0.4 times as long as 2nd ventrite; 5th ventrite 1.6 times as long as 4th ventrite.

Legs. Legs long; femora and tibiae with dense broad scales and rarely semierect setae; femora weakly clavate, without teeth; profemur length/width ratio 3.8; mesofemur length/width ratio 4.0; metafemur length/width ratio 3.6; trochanter conical; tibiae almost straight, weakly flattened, widened at apices, with mucro and apical dark setose fringe, without uncus; metatibial corbels open; protibia length/width ratio 4.3; mesotibia length/width ratio 4.5; metatibia length/width ratio 4.6; tarsi long, with thick light erect setae dorsally; 1st and 2nd tarsomeres triangular; 3rd tarsomere bilobed; 5th tarsomere elongate; claws large, free, without teeth; protarsi: 1st tarsomere 1.3 times longer than wide; 2nd tarsomere 0.9 times longer than wide, 0.6 times as long and 0.9 times as wide as 1st tarsomere; 3rd tarsomere equal in length and width, 1.5 times as long and 1.3 times as wide as 2nd tarsomere; 5th tarso-

mere 2.8 times longer than wide, 1.6 times as long and 0.6 times as wide as 3rd tarsomere; mesotarsi: 1st tarsomere 1.2 times longer than wide; 2nd tarsomere 0.8 times longer than wide, 0.7 times as long and 1.1 times as wide as 1st tarsomere; 3rd tarsomere equal in length and width, 1.6 times as long and 1.2 times as wide as 2nd tarsomere; 5th tarsomere 3.5 times longer than wide, 1.8 times as long and 0.5 times as wide as 3rd tarsomere; metatarsi: 2nd tarsomere 0.6 times as long as wide as 1st tarsomere; 3rd tarsomere 1.6 times as long as 2nd tarsomere; 5th tarsomere 1.5 times as long as 3rd tarsomere.

Type locality and type strata. Amber mines located along the Baltic Sea coast and Yantarny Amber quarry near Kaliningrad, Kaliningrad region, Russia, upper Eocene, Prussian Formation.

Etymology. The name is dedicated to Sir David F. Attenborough (London, UK), for his great contribution of popularizing natural history.

Remarks. The new genus and species belong to the family Curculionidae based on the following characters: ventrites oriented in one plane, elongate first and second ventrites and short third and fourth ventrites, distinct antennal scrobes and geniculate antennae with a compact club. The mandibles with prominent scars of attachment of deciduous processes, rostrum quite short and tibiae without uncus, suggest placement in the subfamily Entiminae. The eyes displaced downwards, rostrum 2.0 times longer than wide, tarsal claws free and lateral antennal scrobes indicate that the new genus belongs to the tribe Tropiphorini.

4. Discussion

Representing the family Belidae, the subfamily Oxycoryninae dates back to the early Cretaceous of Spain (Gratshev & Legalov 2014). Ten tribes (Afrocorynini, Aglycyderini, Allocorynini, Alloxyrcorynini, Archicorynini, Distenorrhinoidini, Metrioxenini, Oxycorynini, Oxycraspedini and Palaeorhopalotriini) are known (Legalov 2009, 2013a; Anderson & Marvaldi 2013). The tribes Distenorrhinoidini (Berriasian–Barremian of Montsec) and Palaeorhopalotriini (upper Eocene of Ale's-Montels) are extinct (Legalov 2009, 2013a). One fossil representative of the genus

was described from the Miocene Dominican amber (Poinar & Legalov 2014b). Several extinct species of the tribe Metrioxenini, widespread in the Oriental region, are known from the Baltic amber (Legalov 2012a, 2012b, 2013a). The tribe Oxycraspedini with the genus *Oxycraspedus* from Chile and Argentina differs from the South American tribe Oxycorynini by the separated procoxal cavities. The specimens of Oxycraspedini can be identified as representatives of Metrioxenini by the head behind eyes being without a groove and the pronotum being without discal carinae. Three extant species of *Oxycraspedus* from Chile and Argentina develop in female strobili of *Araucaria araucana* (Kuschel 1995b, 2001, Ferrer *et al.* 2007). The Baltic amber species developed possibly also in *Araucaria*.

Twenty fossil species of the subfamily Dryophthorinae are known (Legalov 2015). The first records of this subfamily are based on a genus of the tribe Strombocerini in the Rovno amber (Nazarenko & Perkovsky 2009) and undescribed species of the tribe Orthognathini (Schlee 1990). Dryophthorinae are found in the terminal Eocene of the Florissant beds (Scudder 1893) and in the Miocene Dominican amber (Davis & Engel 2006, 2009; Poinar & Legalov 2014a, 2015b). *Palaeodexipeus kirejtshuki* **gen. n. et sp. n.** is the first record of the tribe Strombocerini, and the first described representative of the subfamily Dryophthorinae in the Baltic amber.

The oldest Curculioninae from the tribe Curculionini are described from the Paleocene of France (Piton 1940), because the earlier representative described in this subfamily (Poinar 2009) belongs to another family (Legalov & Poinar 2015). Members of this subfamily are abundant in the terminal Eocene of Florissant (Scudder 1893; Legalov 2015) and Miocene Dominican amber (Poinar & Legalov 2015a). Species of the genera *Succinostyphlus* Kuska, 1996, *Dorytomus* Germar, 1817 and *Pachytychius* Jekel, 1861 from the tribe Ellesini have been described from the Baltic amber (Kuska 1996, Legalov in press).

The tribe Tropiphorini is distributed worldwide. The first finds are in the middle Eocene Green River (Scudder 1893). Some species are described from the terminal Eocene of Florissant (Scudder 1893; Wickham 1911) and Oligocene of France (Zherikhin 1992). *Scuccinalophus*

attenboroughi **gen. n. et sp. n.** is the first finding and the first described representative of the tribe Tropiphorini in the amber.

The insect fauna of the Baltic amber is quite well known (Bachofen-Echt 1949; Larsson 1978; Poinar 1992; Weitschat & Wichard 2010). Ninety-three species from six families of weevils (Nemonychidae – 1, Anthribidae – 11, Belidae – 5, Rhynchitidae – 8, Brentidae – 10, Curculionidae – 37 and Scolytidae – 21) have been described from the Baltic amber (Germar 1813; Motschulsky 1857; Foerster 1891; Hagedorn 1906, 1907; Wagner 1924; Hustache 1942; Schedl 1947; Ulke 1947; Voss 1953; Zherikhin 1971; Voss 1972; Wanat & Borowiec 1986; Kuska 1992; Gratshev & Zherikhin 1995; Kuska 1996; Rheinheimer 2007; Riedel 2010; Yunakov & Kirejtshuk 2011; Riedel *et al.* 2012; Legalov 2012a, 2012b, 2012c, 2013a, 2015, in press). The here presented new fossil records provide a still wider base of the weevil fauna from this amber source.

Acknowledgements. The author thanks O. Jaeger (Germany: Dresden), K.-D. Klass (Germany: Dresden), B. A. Korotyaev (Russia: St.-Petersburg), and Ch. W. O'Brien (USA: Green Valley) for the opportunity to study comparative material, Dr. George O. Poinar, Jr (USA: Corvallis) for improving the manuscript, and anonymous reviewers for their comments. The study was partially supported by the Federal Fundamental Scientific Research Program for 2013–2020, project no. VI.51.1.7 and the Russian Foundation for Basic Research, project no. 15-04-02971.

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