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New taxa of Baltic amber soldier beetles (Insecta: Coleoptera: Cantharidae) with synonymic and taxonomic notes

Новые таксоны мягкотелок (Insecta: Coleoptera: Cantharidae) из балтийского янтаря, с синонимическими и таксономическими замечаниями

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КЛЮЧЕВЫЕ СЛОВА: Coleoptera, Cantharidae, новая триба, новые рода, новые виды, таксономия, балтийский янтарь, палеоэнтомология, эоцен.

ABSTRACT: A new fossil tribe of soldier beetles, Mimoplatycini **tr.n.**, three new genera, *Electronycha* **gen.n.**, *Electrosilis* **gen.n.** and *Mimoplatycis* **gen.n.**, and four new species, *Electronycha prussica*, *Electrosilis minuta*, *Themus pristinus* and *Mimoplatycis notha* **spp.n.**, are described from the Baltic amber. *Hoffeinsensia* Kuska et Kania, 2010, **syn.n.** is synonymized with *Cacomorphocerus* Schaufuss, 1892. *Rhagonycha kryshtofovichi* (Yablokov-Khnzoryan, 1960), **comb.n.** is transferred from *Malchinus* Kiesenwetter, 1863 to *Rhagonycha* Eschscholtz, 1830 and *Macrocerus sucinopenninus* (Kuska et Kania, 2010), **comb.n.** is transferred from *Malthodes* Kiesenwetter, 1852 to *Macrocerus* Motschulsky, 1845. New combinations *Cantharis* (*Cyrtomoptila*) *sucinokotejai* (Kuska, 1996), **comb.n.** and *Cacomorphocerus jantaricus* (Kuska et Kania, 2010), **comb.n.**, resultant from synonymy of relevant genera, are suggested. Provided is a list of the amber Cantharidae, with 19 species from 14 genus-group taxa.

РЕЗЮМЕ: Из балтийского янтаря описывается новая триба жуков-мягкотелок, Mimoplatycini **tr.n.**, три новых рода, *Electronycha* **gen.n.**, *Electrosilis* **gen.n.** и *Mimoplatycis* **gen.n.**, и четыре новых вида, *Electronycha prussica*, *Electrosilis minuta*, *Themus pristinus* и *Mimoplatycis notha* **spp.n**. *Hoffeinsensia* Kuska et Kania, 2010, **syn.n.** сводится в синонимы к *Cacomorphocerus* Schaufuss, 1892. *Rhagonycha kryshtofovichi* (Yablokov-Khnzoryan, 1960), **comb.n.** переносится из *Malchinus* Kiesenwetter, 1863 в *Rhagonycha* Eschscholtz, 1830, а *Macrocerus sucinopenninus* (Kuska et Kania, 2010), **comb.n.** — из *Malthodes* Kiesenwetter, 1852 в *Macrocerus* Motschulsky, 1845. Предлагаются новые комбинации *Cantharis* (*Cyrtomoptila*) *sucinokotejai* (Kuska, 1996), **comb.n.** и *Cacomorphocerus jantaricus* (Kuska et Kania, 2010), **comb.n.**, обусловленные синонимией соответствующих родов. Приводится список описанных из янтаря Cantharidae с 19 видами из 14 таксонов родового ранга.

Introduction

Cantharidae inclusions appear to be quite common in ambers [e.g., Spahr, 1981], and the first fossil taxon of soldier beetles was described from the Baltic amber more than a hundred years ago [Schaufuss, 1892]. Later on further records were made from several extant genera (*Podistra* Motschulsky, 1838, *Cantharis* Linnaeus, 1758, *Rhagonycha* Eschscholtz, 1830, *Malthinus* Latreille, 1806, *Malthodes* Kiesenwetter, 1852 and *Silis* Charpentier, 1825) [Helm, 1896; Zang, 1905; Klebs, 1910]; however, it was not until the 1960s that a second and a third amber cantharid taxa were described [Yablokov-Khnozoryan, 1960; Wittmer, 1963]. They were followed by a number of others [Kuska, 1992; 1996; Kuska & Kupryjanowicz, 2005; Kuska & Kania, 2010; Kazantsev, 2010]. All described amber Cantharidae originate from the Baltic amber, except for two taxa: one from the Chiapas amber of Mexico [Wittmer, 1963], the other from the Rovno amber of Ukraine [Kazantsev, 2010].

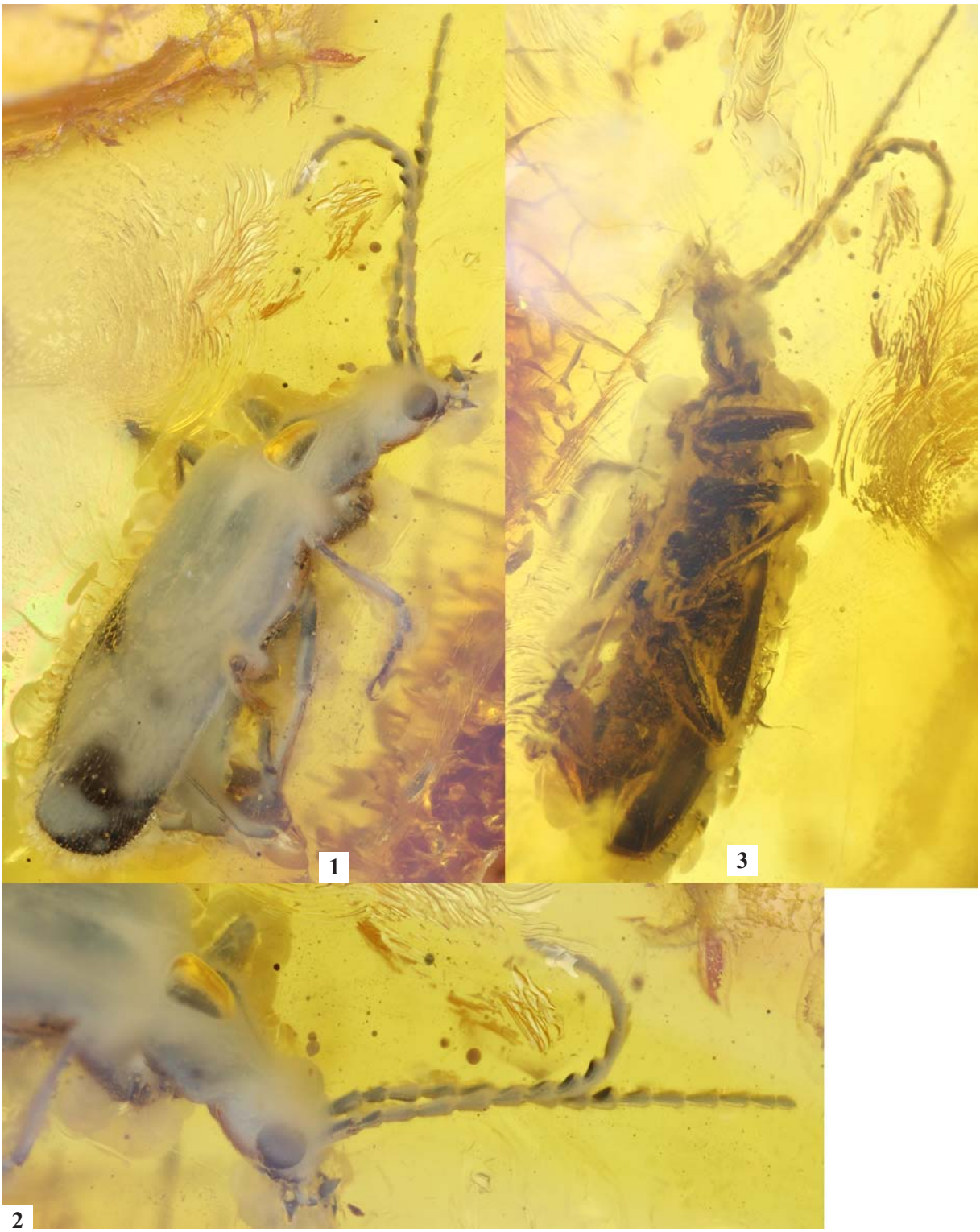
A study of Baltic amber inclusions from the Hoffeins collection in Hamburg and the Zoological Museum of Copenhagen University allows adding several new taxa, from the subfamilies Cantharinae, Silinae and Malthininae. Descriptions of the new taxa are presented below.

Taxonomy

Electronycha Kazantsev **gen.n.**

Type species: *Electronycha prussica* Kazantsev **sp.n.**

DESCRIPTION. **Male**. Alate, flattened, elongate (Fig. 1). Head moderately large, subquadrate, completely exposed. Eyes relatively small, spherical. Palps small, slender; ultimate palpomeres elongate, elliptical. Antenna 15-segmented, moderately long, antennomeres 1–5 and 10–15 filiform, an-



Figs 1–3. General view of *Electronycha prussica* **gen.n.**, **sp.n.,** holotype: 1 — dorsally; 2 — anterior portion, dorsally; 3 — ventrally.
Рис. 1–3. Общий вид *Electronycha prussica* **gen.n.**, **sp.n.**, голотип: 1 — сверху; 2 — передняя часть, сверху; 3 — снизу.

tennomeres 6–9 distally swollen, provided with prominent roundish glabrous patches; pedicel (antennomere 2) elongate, noticeably shorter than antennomere 3, antennomere 3 slightly shorter than antennomere 4; pubescence on antennomeres 3–15 short and suberect (Figs 1–2).

Pronotum elongate, narrowing anteriorly from the middle, with produced anterior margin, a pair of vague bulges in posterior half and noticeable posterior angles (Figs 1–2). Prosternum short, Y-shaped (Fig. 3). Scutellum triangular (Fig. 1). Metaventrite transverse (Fig. 3). Elytra elongate, parallel-sided, shining, roughly and densely punctate (Fig. 1). Metathoracic wings fully developed.

Legs relatively long and slender; hind coxae elongate and separated; trochanters small and elongate; femurs and tibiae straight, narrow, subequal in length; tibial spurs conspicuous; tarsomeres widened, with plantar pads, tarsomere 4 deeply incised, tarsomere 1 subequal in length to tarsomeres 2 and 3 combined (Figs 1, 3); claws simple.

Abdomen with eight ventrites, first medially interrupted by metacoxae; exposed portion of ultimate ventrite elongate, triangular; penultimate ventrite medially slightly incised (Fig. 3).

Female. Unknown.

ETYMOLOGY. The name of the new genus is a combination of "electron", the Greek for «amber», and the genus name "Rhagonycha". Gender feminine.

DIAGNOSIS. *Electronycha* **gen.n.**, being similar in general appearance to the genus *Rhagonycha* Eschscholtz, 1830, is distinguishable by the 15-segment antennae, with distally swollen and bearing prominent roundish glabrous patches antennomeres 6–9 (Fig. 3), not widened distally maxillary palpomeres and simple claws. It differs from *Sucinocantharis* Kuska et Kania, 2010, described also from the Baltic amber and characterized by the 16-segment antennae, by the number of antennomeres, relatively little modified middle antennomeres and simple claws.

Electronycha prussica Kazantsev **sp.n.**
Figs 1–3

MATERIAL: Holotype, ♂, specimen No.1112–3, Baltic amber, Eocene (Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany).

DESCRIPTION. **Male**. Dark brown.

Ultimate maxillary palpomere about twice as long as wide and ca. 2.5 times longer than penultimate palpomere. Antennae attaining to elytral third, antennomere 2 ca. 1.3 times shorter than antennomere 3 (Fig. 2).

Pronotum slightly longer than wide, with triangularly produced anterior margin (Fig. 2).

Elytra ca. 3.5 times as long as wide at humeri, with uniform sparse erect pubescence (Fig. 1).

Length (from anterior head margin to end of elytra): 7.4 mm. Width (humerally): 2.0 mm.

Female. Unknown.

SYNINCLUSIONS. Three Diptera: Hybotidae, Ceratopogonidae; one spider; seven Acari; stellate hairs.

ETYMOLOGY. The name of the new species is derived from one of the vanished Baltic ethnic groups.

DIAGNOSIS. *Electronycha prussica* **sp.n.**, the only known representative of the genus, is easily distinguishable from other cantharids by the generic characters.

REMARKS. The upper surface of the Holotype of *E. prussica* **sp.n.** is to a great extent obscured by milky substance; nevertheless, many crucial characters, i.e., antennae, claws, portions of pronotum and elytra, as well as nearly all underside structures, are well visible (Figs 1–3).

Electrosilis Kazantsev **gen.n.**

Type species: *Electrosilis minuta* Kazantsev **sp.n.**

DESCRIPTION. **Male**. Alate, flattened, elongate (Fig. 4). Head transverse, exposed. Eyes small round laterally. Palps small, slender; ultimate palpomeres elongate, slightly flattened, almost parallel-sided. Antenna 11-segmented, relatively short, filiform; pedicel (antennomere 2) elongate, about as long as antennomere 3 and subsequent antennomeres; pubescence on antennomeres 3–11 short and scarce (Figs 4–5).

Pronotum transverse, broad, straight anteriorly and medially convex posteriorly, with slightly explanate sides and small roundish pores at anterior third and near swollen acute posterior angles (Fig. 5). Prosternum short. Scutellum triangular, rounded at apex (Fig. 5). Mesoventrite short. Mesoventrite transverse, with laterally produced rounded posterior angles (Fig. 6). Elytra elongate, slightly convex, elliptical, with humeral costa attaining to elytral three fourths, punctate, punctures arranged in more or less straight longitudinal rows; short erect pubescence uniform (Figs 4–5). Epipleuron absent (Fig. 6). Metathoracic wings fully developed.

Legs relatively long and slender; hind coxae elongate and subapproximate; trochanters small and elongate; femurs and tibiae straight, tibiae narrow, subequal in length to femurs; tibial spurs conspicuous; tarsomeres 1–3 narrow, seemingly without plantar pads, tarsomere 4 deeply incised; claws simple (Fig. 5).

Abdomen with eight ventrites, first medially almost entirely interrupted; penultimate conspicuously semicircularly incised; exposed portion of ultimate ventrite small, elongate, triangular; penultimate tergite with latero-distal roundish processes (Fig. 6).

Female. Unknown.

ETYMOLOGY. The name of the new genus is derived from "electron", the Greek for "amber", and the genus name "Silis". Gender feminine.

DIAGNOSIS. *Electrosilis* **gen.n.** is similar to the genus *Silis* Charpentier, 1825, distinguishable by the narrowly explanate pronotal sides (Fig. 6) and prominent humeral elytral costa attaining to elytral three fourths (Figs 4–5).

Electrosilis minuta Kazantsev **sp.n.**
Figs 4–6

MATERIAL: Holotype, ♂, specimen No.1441–2, Baltic amber, Eocene (Senckenberg Deutsches Entomologisches Institut, Müncheberg, Germany).

DESCRIPTION. **Male**. Light brown.

Eyes small, interocular dorsal distance ca. 6 times greater than eye diameter. Ultimate maxillary palpomere ca. 1.8 times longer than wide, widened distally. Antennae filiform, attaining to elytral third, antennomere 2 subequal in length to antennomere 3 and subsequent antennomeres (Fig. 4).

Pronotum transverse, ca. 2 times as wide as long, straight anteriorly, strongly convex posteriorly, with small straight and posterior angles. Scutellum triangular, rounded at apex (Fig. 5).

Elytra ca. 3 times as long as wide at humeri, parallel-sided, with rather scarce and relatively large punctures (Figs 4–6).

Tarsomere 1 ca. as long as tarsomere 2 and subequal in length to tarsomeres 3–4 combined (Fig. 5).

Length (from anterior head margin to end of elytra): 2.1 mm. Width (humerally): 0.7 mm.

Female. Unknown.

SYNINCLUSIONS. None.

ETYMOLOGY. The name of the new species is derived from the Latin for «small», alluding to its size.

DIAGNOSIS. *Electrosilis minuta* **sp.n.**, the only known representative of the genus, is readily distinguishable from other cantharids by the generic characters.

Themus pristinus Kazantsev **sp.n.**
Figs 7–9

MATERIAL: Holotype, ♀, specimen No.1593–1, Baltic amber, Eocene (Senckenberg Deutsches Entomologisches Institut, Münchеberg, Germany).

DESCRIPTION. **Female**. Dark brown.

Head large, behind eyes parallel-sided, Eyes relatively small, interocular dorsal distance ca. 3.5 times greater than eye diameter. Ultimate maxillary palpomere ca. 2.5 times longer than wide, widest in the middle. Antennae 11-segmented, narrow, filiform, attaining to elytral three fifths, antennomere 2 ca. 1.4 times shorter than antennomere 3, antennomeres 2 and 3 combined subequal in length to antennomere 4 (Fig. 7).

Pronotum transverse, ca. 1.4 times as wide as long, with deflexed margins, rounded anteriorly, with noticeable anteri-

Figs 4–6. General view of *Electrosilis minuta* **gen.n.**, **sp.n.,** holotype: 4 — dorsally; 5 — antero-dorsally; 6 — ventrally.
Рис. 4–6. Общий вид *Electrosilis minuta* **gen.n.**, **sp.n.**, голотип: 4 — сверху; 5 — сверху и спереди; 6 — снизу.

or and blunt posterior angles. Scutellum triangular. Elytra ca. 3 times as long as wide at humeri, parallel-sided, granulose, with relatively dense decumbent pubescence and scarcer erect hairs (Figs 7–8).

Coxae massive; hind coxae separated. Femurs straight, tibiae slightly curved; tibia with small distal incision; tibial spurs prominent, of approximately equal size. Tarsomeres widened and provided with plantar pads; tarsomere 1 as long as tarsomeres 2 and 3 combined and longer than tarsomere 5. Claws simple, outer claw with elongate basal tooth (Figs 7–9).

Abdomen with seven ventrites; ultimate ventrite with prominent transverse impression, medially semicircularly produced at distal margin (Fig. 9).

Length (from anterior head margin to end of elytra): 13.2 mm. Width (humerally): 3.2 mm.

Male. Unknown.

SYNINCLUSIONS. One Diptera.

ETYMOLOGY. The name of the new species is derived from the Latin for «no longer existing».

DIAGNOSIS. *Themus pristinus* **sp.n.** is distinguishable from *Cantharis sucinonigra* Kuska, 1992, the only other similar amber cantharid, by the large size, long cheeks and slightly more rounded pronotal sides (Figs 7–9). The long cheeks also distinguish the new taxon from the extant members of the genus *Cantharis* Linnaeus, 1758.

The long cheeks of this new taxon, as well as its general

Figs 7–9. General view of *Themus pristinus* **sp.n.,** holotype: 7 — dorsally; 8 — laterally; 9 — ventrally.
Рис. 7–9. Общий вид *Themus pristinus* **sp.n.**, голотип: 7 — сверху; 8 — сбоку; 9 — снизу.

appearance, testify to its relationships with the genus *Themus* Motschulsky, 1858, where, in the subgenus *Haplothemus* Wittmer, 1973, also characterized by the deflexed and somewhat rounded pronotal margins [Svihla, 2008], it is tentatively placed.

Mimoplatycini Kazantsev **tr.n.**

type genus: *Mimoplatycis* Kazantsev **gen.n.**

DIAGNOSIS. Mimoplatycini **tr.n.** may be distinguished by the six male ventrites (Fig. 13) vs. seven or eight ventrites in other cantharids [Brancucci, 1980] (e.g., Fig. 9). It also differs from all known soldier beetles by the conspicuously carinate pronotum, reminiscent of some representatives of the family Lycidae (Fig. 14). At the same time the globular and pointed apically palpomeres and large convex ultimate ventrite suggest the new taxon might be part of Malthininae, where it is tentatively referred to.

DISTRIBUTION. Mimoplatycini **tr.n.** includes just one genus, *Mimoplatycis* **gen.n.**, known only from the Baltic amber.

Mimoplatycis Kazantsev **gen.n.**

Type species: *Mimoplatycis notha* Kazantsev **sp.n.**

DESCRIPTION. **Male**. Alate, flattened, elongate. Head small, subquadrate, completely exposed. Eyes relatively small, spherical, bulging. Palps small, slender, narrow; ultimate palpomeres noticeably elongate, semi-globular and pointed distally. Antenna 11-segmented, moderately long, filiform; all segments, including scapus, narrow, antennomeres 2 and 3 subequal in length, antennomere 4 the longest, antennomeres 4–11 slightly gradually shortening distally (Figs 10–12).

Pronotum transverse, with feebly convex anterior margin and prominent produced laterally posterior angles; with conspicuous median areole, rounded anteriorly, open posteriorly and interrupted in the middle, with transverse carinae (Figs 11–12, 14). Prosternum short, Y-shaped. Scutellum transverse, triangular (Figs 11–12). Metaventrite transverse (Fig. 13). Elytra elongate, parallel-sided, shining, finely granulose (Figs 11–12), epipleuron short, limited to humeral area; pubescence relatively dense, decumbent, with scarce erect hairs. Metathoracic wings fully developed.

Legs relatively long and slender; hind coxae elongate and separated; trochanters small and elongate, attached posteriorly on femurs; femurs and tibiae straight, narrow, subequal in length; tibial spurs small, but noticeable; tarsomeres narrow, without plantar pads, tarsomere 4 deeply incised, tarsomere 1 subequal in length to tarsomeres 2 and 3 combined (Figs 12–13); claws simple.

Abdomen with six ventrites, first medially interrupted by metacoxae; exposed portion of ultimate ventrite elongate, slightly narrowing distally, rounded apically and enveloped in prominent tergal lobes; penultimate ventrite medially not incised (Fig. 13).

Female. Unknown.

ETYMOLOGY. The name of the new genus is a combination of «mimos», the Greek for «imitator», and the genus name "Platycis", alluding to the resemblance of the pronotal structure of new taxon to that of the lycid genus *Platycis* Thomson, 1864. Gender feminine.

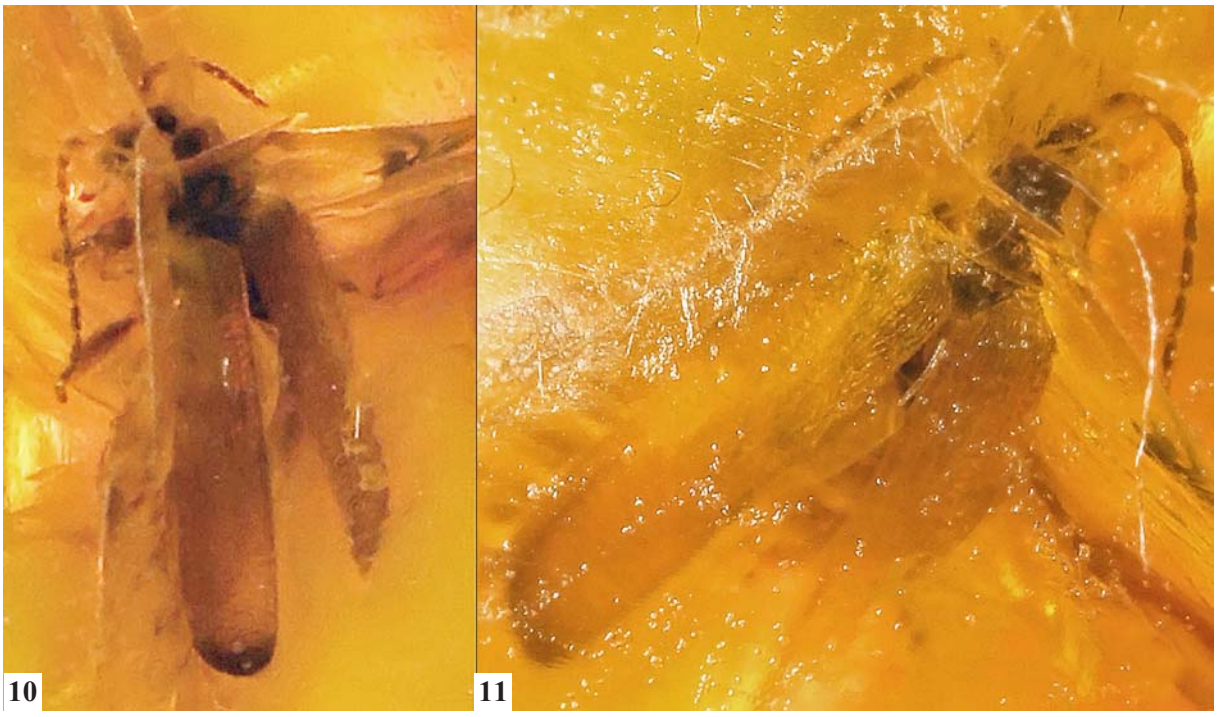
DIAGNOSIS. *Mimoplatycis* **gen.n.** may be readily distinguished by the tribal characters.

Mimoplatycis notha Kazantsev **sp.n.**
Figs 10–14

MATERIAL: Holotype, ♂, specimen No. 1–12/1966, Baltic amber, Eocene (Zoological Museum of Copenhagen University); paratype, ♂, specimen No. AWI-038, Baltic amber, Eocene (private collection of V.I. Alekseev (Kaliningrad, Russia).

DESCRIPTION. **Male**. Dark brown; pronotal sides and elytra, except darkened apices, yellowish brown.

Eyes separated by ca. 2 times their diameter. Ultimate maxillary palpomere about as long as palpomeres 2 and 3



Figs 10–11. General view of *Mimoplatycis notha* **gen.n.**, **sp.n.,** holotype: 10 — dorso-laterally; 11 — dorso-anteriorly.
Рис. 10–11. Общий вид *Mimoplatycis notha* **gen.n.**, **sp.n.**, голотип: 10 — сверху и сбоку; 11 — сверху и спереди.

Figs 12–13. General view of *Mimoplatycis notha* **gen.n.**, **sp.n.,** paratype male: 12 — dorsally; 13 — ventrally.
Рис. 12–13. Общий вид *Mimoplatycis notha* **gen.n.**, **sp.n.**, паратип, самец: 12 — сверху; 13 — снизу.

combined and wide and ca. 2.5 times wider than penultimate palpomere. Antennae attaining to elytral middle, antennomere 2 ca. 1.2 times shorter than antennomere 3 (Figs 11–12).

Pronotum 1.5 times wider than long, with prominent acute posterior angles and noticeably incised sides (Figs 11–12, 14).

Elytra ca. 3.5 times as long as wide at humeri and 5.6–5.8 time longer than pronotum (Fig. 12).

Length (from anterior head margin to end of elytra): 2.9 (paratype) — 3.6 (holotype) mm. Width (humerally): 0.7 (paratype) — 0.9 (holotype) mm.

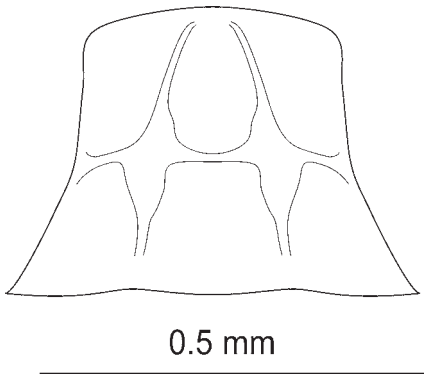


Fig. 14. Pronotum of *Mimoplatycis notha* **gen.n.**, **sp.n.,** paratype male.
Рис. 14. Переднеспинка *Mimoplatycis notha* **gen.n.**, **sp.n.**, паратип, самец.

Female. Unknown.

SYNINCLUSIONS. None.

ETYMOLOGY. The name of the new species is derived from the Latin for «hybrid», alluding to the resemblance of its pronotal structure to that of certain Erotini (Lycidae).

DIAGNOSIS. *Mimoplatycis notha* **sp.n.**, the only known representative of the genus, is easily distinguishable from other cantharids by the generic characters.

REMARKS. The holotype of *M. notha* **sp.n.** is partly obscured by milky substance and cracks, especially on the underside. The paratype is an autoclave-treated specimen, with the characteristic darkening of colour and compression and distortion of legs and body parts. The pronotum of the paratype has, for instance, more bulging carinae, but lacks the narrow median keel in anterior areole.

Cacomorphocerus Schaufuss, 1892

type species *Cacomorphocerus cerambyx* Schaufuss, 1892.

Cacomorphocerus Schaufuss, 1892: 57.

= *Hoffeinsensia* Kuska et Kania, 2010: 50, **syn.n.** type species *Hoffeinsensia jantarica* Kuska et Kania, 2010.

REMARKS. The genus *Hoffeinsensia* Kuska et Kania, 2010, **syn.n.** was established for a Baltic amber specimen possessing all characters of *Cacomorphocerus* Schaufuss, 1892, with which it was not compared [Kuska & Kania, 2010]. Therefore, *Hoffeinsensia* Kuska et Kania, 2010, **syn.n.** is placed in synonymy with *Cacomorphocerus* Schaufuss,

1892. The type species of *Hoffeinsensia*, if not conspecific with *C. cerambyx* Schaufuss, 1892, must be treated as *Cacomorphocerus jantaricus* (Kuska et Kania, 2010), **comb.n.**

Cantharis (*Cyrtomoptila*) *sucinokotejai* (Kuska, 1996), **comb.n.**

Absidiella sucinokotejai Kuska, 1996: 107.

REMARKS. Since *Absidiella* Wittmer, 1972 is considered a synonym of *Cantharis* (*Cyrtomoptila*) Motschulsky, 1860 [e.g., Kazantsev & Brancucci, 2007], *Absidiella sucinokotejai* Kuska, 1996 becomes *Cantharis* (*Cyrtomoptila*) *sucinokotejai* (Kuska, 1996), **comb.n.**

Rhagonycha kryshtofovichi (Yablokov-Khnzoryan, 1960), **comb.n.**

Malchinus kryshtofovichi Yablokov-Khnzoryan, 1960: 95.

REMARKS. Characters provided for *Malchinus kryshtofovichi* [Yablokov-Khnzoryan, 1960] (anteriorly narrowed pronotum, distally widened terminal palpomeres, unmodified terminal abdominal segments) testify that the inclusion does not belong in the genus *Malchinus* Kiesenwetter, 1863 [=*Macrocerus* Motschulsky, 1845], but rather in *Rhagonycha* Eschscholtz, 1830, where it is tentatively transferred.

Macrocerus sucinopenninus (Kuska et Kania, 2010), **comb.n.**

Malthodes sucinopenninus Kuska et Kania, 2010: 54.

REMARKS. Characters provided for *Malthodes sucinopenninus* [Kuska et Kania, 2010] (long antennae, broad narrowly margined pronotum, long elytra, little modified terminal abdominal segments) testify that the inclusion belongs in the genus *Macrocerus* Motschulsky, 1845, rather than in *Malthodes* Kiesenwetter, 1852.

A list of the currently known amber Cantharidae, which includes 19 species from 14 genus-group taxa, is presented below.

Subfamily Cantharinae Imhoff, 1856 (1815)

Genus *Cantharis* (*Cantharis*) Linnaeus, 1758

type species *Cantharis fusca* Linnaeus, 1758.
sucinonigra Kuska, 1992: 107. Baltic amber.

Genus *Cantharis* (*Cyrtomoptila*) Motschulsky, 1860

type species *Cantharis lateralis* Linnaeus, 1758.
sucinokotejai Kuska, 1996: 14 (*Absidiella*). Baltic amber.

Genus *Rhagonycha* Eschscholtz, 1830

type species *Cantharis fulva* Scopoli, 1763.
kryshtofovichi Yablokov-Khnzoryan, 1960: 95 (*Malchinus*). Baltic amber.

Genus *Electronycha* Kazantsev, 2013, **gen.n.**

type species *Electronycha prussica* Kazantsev, 2013, **sp.n.**
prussica Kazantsev, 2013, **sp.n.** Baltic amber.

Genus *Sucinocantharis* Kuska et Kania, 2010: 52

type species *Sucinocantharis baltica* Kuska et Kania, 2010
baltica Kuska et Kania, 2010: 52. Baltic amber.

Genus *Sucinorhagonycha* Kuska, 1996: 13

type species *Sucinorhagonycha kulickae* Kuska, 1996.
kulickae Kuska, 1996: 13. Baltic amber.

Genus *Themus* Motschlsky, 1858

type species *Themus cyanipennis* Motschulsky, 1858.
pristinus Kazantsev, 2013, **sp.n.** Baltic amber.

Subfamily Silinae Mulsant, 1862

Genus *Electrosilis* Kazantsev, 2013, **gen.n.**

type species *Electrosilis minuta* Kazantsev, 2013, **sp.n.**
minuta Kazantsev, 2013, **sp.n.** Baltic amber.

Genus *Silis* Charpentier, 1825

type species *Cantharis ruficollis* Fabricius, 1775.
chiapasensis Wittmer, 1963. Mexican amber.

Subfamily Malthininae Kiesenwetter, 1852

Tribe Malchinini Brancucci, 1980

type genus Malchinus Kiesenwetter, 1863.

Genus *Macrocerus* Motschulsky, 1845

type species *Macrocerus oculatus* Motschulsky, 1845.
sucinopenninus Kuska et Kania, 2010: 54 (*Malthodes*). Baltic amber.

Tribe Malthinini Kiesenwetter, 1852

type genus *Malthinus* Latreille, 1806.

Genus *Malthinus* Latreille, 1806: 261

type species *Cantharis flaveola* Herbst, 1784.
danieli Kuska et Kania, 2010: 53. Baltic amber.

Tribe Malthodini Böving et Craighead, 1930

type genus *Malthodes* Kiesenwetter, 1852

Genus *Malthodes* Kiesenwetter, 1852

type species *Malthinus marginatus* Latreille, 1806.
ceranoviczae Kuska et Kupryjanowicz, 2005: 310. Baltic amber.
kotejai Kuska et Kupryjanowicz, 2005: 311. Baltic amber.
perkovskyi Kazantsev, 2010: 105. Rovno amber.
serafini Kuska et Kupryjanowicz, 2005: 312. Baltic amber.
sucini Kuska et Kania, 2010: 55. Baltic amber.

Tribe Mimoplatycini Kazantsev, 2013, **tr.n.**

type genus *Mimoplatycis* Kazantsev, 2013, **gen.n.**

Genus *Mimoplatycis* Kazantsev, 2013, **gen.n.**

type species *Mimoplatycis notha* Kazantsev, 2013, **sp.n.**
notha Kazantsev, 2013, **sp.n.** Baltic amber.

Subfamily Dysmorphocerinae Brancucci, 1980

Genus *Cacomorphocerus* Schaufuss, 1892: 57

type species *Cacomorphocerus cerambyx* Schaufuss, 1892.
= *Hoffeinsensia* Kuska et Kania, 2010: 50, **syn.n.** type species *Hoffeinsensia jantarica* Kuska et Kania, 2010.
cerambyx Schaufuss, 1892: 58. Baltic amber.
jantaricus Kuska et Kania, 2010: 50 (*Hoffeinsensia*). Baltic amber.

Discussion

There seems to be a marked disposition among the Eocene Cantharidae to an increase in the number of antennomeres: *Cacomorphocerus* Schaufuss, 1892 and *Sucinorhagonycha* Kuska, 1996 have 12-segment antennae, the above described *Electronycha* — 15-segment, and *Sucinocantharis* — 16-segment antennae. All modern soldier-beetles have 11-segment antennae, with the exception of some representatives of the sub-

family Dysmorphocerinae that may have twelve antennomeres [Brancucci, 1980]. However, characters that separate Dysmorphocerinae from other cantharids mostly relate to internal structures or wings [Brancucci, 1980] and cannot be studied in amber specimens (at least without an access to synchrotron X-ray microtomography). In this respect it is not possible to say with certainty whether these taxa (including *Cacomorphocerus*) are fossil dysmorphocerines or just cantharines with homoplastically modified antennae.

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References

Brancucci M. 1980. Morphologie comparée, évolution et systématique des Cantharidae. (Insecta: Coleoptera) // Entomologica Basiliensia. Vol.5. P.215–388.

Helm O. 1896. Beiträge zur Kenntniss der Insekten des Bernstein // Schriften der Naturfurschenden Gesellschaft in Danzig. N. F. B.9. H.1. S.220–231.

Kazantsev S.V. 2010. New *Malthodes* from the Rovno Amber (Insecta, Cantharidae, Coleoptera) (Upper Eocene of Ukraine) // Russian Entomological Journal. Vol.19. No.2. P.105–107.

Kazantsev S.V. & Brancucci M. 2007. Cantharidae. P.234–298 // I. Löbl & A. Smetana (eds.). Catalogue of Palaearctic Coleoptera. Vol.4. Stenstrup: Apollo Books. 935 p.

Klebs R. 1910. Über Bernstein einschlusse im allgemeinen und die Coleopteren meiner Bernsteinsammlung // Schriften der Physikalisch-ökonomischen Gesellshaft zu Königsberg. B.51. H.3. S.217–242.

Kuska A. 1992. Three new species of beetles (Coleoptera: Cantharidae, Anobiidae, Curculionidae) from the Baltic Amber // Annals of the Upper Silesian Museum — Entomology. Vol.3. P.107–113.

Kuska A. 1996. New beetle species (Coleoptera, Cantharidae, Curculionidae) from the Baltic amber // Prace Muzeum Ziemi. Vol.44. P.13–18.

Kuska A. & Kupryjanowicz J. 2005. Soldier beetles (Coleoptera, Cantharidae) from Baltic amber // Polskie Pismo Entomologiczne. Vol.74. P.309–316.

Kuska A. & Kania I. 2010. New soldier beetles (Coleoptera, Cantharidae) from the Eocene Baltic amber // Zootaxa. Vol.2400. P.49–56.

Schaufuss C. 1892. Preussens Bernstein-Käfer. I. Neue Formen aus der Helm'schen Sammlung im Danziger Provinzialmuseum // Berliner Entomologische Zeitschrift (1891). B.36. H.1. S.53–64.

Spahr U. 1981. Systematischer Katalog der Bernstein- und Copal-Käfer (Col.) // Stuttgarter Beiträge zur Naturkunde, ser. B. B.80. S.1–107.

Svihla V. 2008. Redefinition of the subgenera of the genus *Themus* Motschulsky, 1858, with description of five new species (Coleoptera: Cantharidae) // Ternate. Vol.27. P.183–190.

Wittmer W. 1963. A new Cantharid from the Chiapas Amber of Mexico // University of California Publications in Entomology. Vol.31. No.1. P.53.

Yablokov-Khnzoryan S.M. 1960. New beetles from the Baltic amber // Paleontologicheskij Zhurnal. Vol.3. P.90–101 [in Russian].

Zang R. 1905. Coleoptera Longicornia aus der Berendtschen Bernsteinsammlung // Sitzungs-Berichte der Gesellschaft naturforschender Freunde zu Berlin. 1905. S.232–245.